



Faculty of Economics and Business

**Role Stressors, Job Stress, and Organizational Commitment in China's
Education Sector: The Moderating Effect of Job Insecurity**

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**Doctor of Philosophy
2026**

Role Stressors, Job Stress, and Organizational Commitment in China' s
Education Sector: The Moderating Effect of Job Insecurity

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A thesis submitted

In fulfilment of the requirements for the degree of Doctor of Philosophy

(Management)

Faculty of Economics and Business
UNIVERSITI MALAYSIA SARAWAK

2026

DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Malaysia Sarawak. Except where due acknowledgements have been made, the work is that of the author alone. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

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ACKNOWLEDGEMENT

I extend my heartfelt gratitude to the exceptional individuals whose unwavering support, encouragement, and guidance were instrumental in the completion of my PhD thesis. I am deeply appreciative of all those who contributed to easing my academic journey and strengthening my engagement with the scientific community.

First and foremost, I wish to express my sincere gratitude to my main supervisor, Associate Professor Dr. Abang Azlan Mohamad, and my co-supervisor, Professor Dr. Lo May Chiun, for their steadfast support and guidance throughout my PhD journey at Universiti Malaysia Sarawak. I am deeply thankful for their insightful suggestions on maintaining coherence and structure in my work, as well as their thorough evaluation of the final thesis, which led to significant improvements. Their consistent encouragement, inspiration, and confidence have kept me focused and motivated in pursuit of my academic objectives. I am especially grateful for their willingness to support me in completing this milestone despite the time constraints I faced. This study would not have been possible without their trust in my commitment and acceptance of me as a research student.

Furthermore, I would like to extend my sincere appreciation to the members of the Faculty of Economics and Business (FEB) committee for their invaluable insights, support, and assistance throughout my academic journey. I am equally grateful to the Centre for Graduate Studies at Universiti Malaysia Sarawak for their guidance and administrative support during the course of my studies. Additionally, I am thankful to the management of Universiti Malaysia Sarawak for facilitating the environment and resources necessary for the successful completion of my studies. Your support and generosity in offering this opportunity are deeply appreciated.

Last but certainly not least, I am profoundly grateful to my family, especially my parents, Liu Yanguang and Wang Hongmei, whose unwavering care, support, and unconditional love have sustained me throughout my academic journey. Their encouragement has been a source of strength during both challenging and rewarding times. I am also sincerely grateful to all my relatives and friends for their ongoing emotional support and encouragement, which have been invaluable throughout my PhD studies.

ABSTRACT

This study examines the relationships among role stressors, job stress, and organizational commitment among contract-based Chinese university lecturers in Jiangsu Province. Given the rapid transformation of China's higher education sector, lecturers face substantial pressures stemming from unclear expectations (role ambiguity), conflicting demands (role conflict), and overwhelming workloads (role overload). This study investigates how these stressors contribute to job stress and affect organizational commitment, which comprises affective, normative, and continuance dimensions. Additionally, job insecurity is examined as a moderating variable to understand its role in intensifying or mitigating the relationship between role stressors and job stress. The research adopts a quantitative methodology, utilizing structured questionnaires to gather data from contract lecturers across Jiangsu Province. WarpPLS 8.0 was used to assess the research model for PLS-SEM analysis, and the findings revealed that all the proposed hypotheses were supported. The findings indicate a significant positive relationship between role stressors and job stress, suggesting that role ambiguity, role conflict, and role overload contribute to heightened job stress.

Furthermore, job stress is found to have a positive effect on organizational commitment, diminishing lecturers' emotional attachment, sense of duty, and continued allegiance to their institutions. The moderating analysis reveals that job insecurity exacerbates the impact of role stressors on job stress, particularly in environments characterized by contract renewal uncertainty. Lecturers experiencing job insecurity demonstrate greater stress sensitivity, further eroding their organizational commitment. This study contributes to the theoretical understanding of workplace stress and organizational commitment by integrating Social Exchange Theory and Role Theory. Practically, it underscores the need for higher education

institutions to address role ambiguity, workload pressures, and job insecurity through supportive policies, stress management initiatives, and clear role definitions. Implementing these strategies can enhance lecturers' well-being, reduce stress, and foster greater organizational commitment, ultimately ensuring a more stable and productive academic workforce.

Keywords: Role stressors, job stress, organizational commitment, job insecurity, role ambiguity, role conflict, role overload, higher education

***Penekan Peranan, Stres Kerja, dan Komitmen Organisasi: Kesan Pemoderasi
Ketidakjaminan Kerja***

ABSTRAK

Kajian ini meneliti hubungan antara penekan peranan, stres kerja, dan komitmen organisasi, dengan memberi tumpuan kepada pensyarah universiti berbangsa Cina yang bekerja secara kontrak di Wilayah Jiangsu. Memandangkan transformasi pesat dalam sektor pendidikan tinggi di China, para pensyarah menghadapi tekanan yang besar berpunca daripada jangkaan yang tidak jelas (kekaburan peranan), tuntutan yang bercanggah (konflik peranan), dan beban kerja yang berlebihan (beban peranan). Kajian ini menyiasat bagaimana faktor-faktor tekanan ini menyumbang kepada stres kerja dan mempengaruhi komitmen organisasi, yang merangkumi dimensi afektif, normatif, dan kesinambungan. Selain itu, ketidakjaminan kerja dikaji sebagai pemboleh ubah pemoderasi untuk memahami peranannya dalam menguatkan atau mengurangkan hubungan antara penekan peranan dan stres kerja. Penyelidikan ini menggunakan pendekatan kuantitatif dengan mengedarkan soal selidik berstruktur kepada pensyarah kontrak di seluruh Wilayah Jiangsu. WarpPLS (versi 8.0) digunakan untuk menilai model penyelidikan melalui analisis PLS-SEM, dan hasil kajian menunjukkan bahawa semua hipotesis yang dicadangkan disokong. Dapatan menunjukkan hubungan positif yang signifikan antara penekan peranan dan stres kerja, dengan menunjukkan bahawa kekaburan peranan, konflik peranan, dan beban peranan menyumbang kepada peningkatan tahap stres. Tambahan pula, stres kerja didapati memberi kesan negatif terhadap komitmen organisasi, dengan mengurangkan keterikatan emosi, rasa tanggungjawab, dan kesetiaan berterusan pensyarah terhadap institusi mereka. Analisis pemoderasi menunjukkan bahawa ketidakjaminan kerja memburukkan lagi kesan penekan peranan terhadap stres kerja, khususnya dalam persekitaran di mana terdapat

ketidakpastian mengenai pembaharuan kontrak. Pensyarah yang mengalami ketidakjaminan kerja menunjukkan kepekaan yang lebih tinggi terhadap stres, sekali gus menghakis komitmen mereka terhadap organisasi. Kajian ini menyumbang kepada pemahaman teori mengenai stres di tempat kerja dan komitmen organisasi dengan mengintegrasikan Teori Pertukaran Sosial dan Teori Peranan. Dari sudut praktikal, kajian ini menekankan keperluan institusi pendidikan tinggi untuk menangani kekaburan peranan, tekanan beban kerja, dan ketidakjaminan kerja melalui dasar sokongan, inisiatif pengurusan stres, dan takrifan peranan yang jelas. Pelaksanaan strategi-strategi ini dapat meningkatkan kesejahteraan pensyarah, mengurangkan stres, dan mengukuhkan komitmen organisasi, sekali gus memastikan tenaga akademik yang lebih stabil dan produktif.

Kata kunci: *Penekan peranan, stres kerja, komitmen organisasi, ketidakjaminan kerja, kekaburan peranan, konflik peranan, beban peranan, pendidikan tinggi*

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LIST OF ABBREVIATION

AM	Arithmetic Mean
AVE	Average Variance Extracted
CB-SEM	Covariance-based Structural Equation Modeling
CFA	Confirmatory Factor Analysis
CR	Composite Reliability
PLS-SEM	Partial Least Squares Structural Equation Modeling
SET	Social Exchange Theory

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Workplace stress is widely recognised as a serious issue because it affects employee health, work quality, and organisational performance. At the global level, poor working conditions, such as excessive workloads and job insecurity, are linked to mental health risks. The World Health Organization reports that depression and anxiety lead to an estimated 12 billion lost working days each year, with about US\$1 trillion in lost productivity (WHO, 2024).

Role-related pressures are a common source of workplace stress (Amadi, 2024; Hassard et al., 2021; Lapierre & Cooper, 2023). When employees do not clearly understand their duties (role ambiguity), receive incompatible demands (role conflict), or face more tasks than they can reasonably complete (role overload), stress levels rise. These conditions often reduce motivation, weaken work engagement, and harm work attitudes. In organisational research, job stress is commonly treated as a key process through which role stressors influence employee outcomes (Eichberger et al., 2021; Ilyas et al., 2025; Kaur et al., 2025). One important outcome is organisational commitment, which reflects an employee's psychological attachment to an organisation and includes affective, normative, and continuance commitment. In addition, job insecurity, defined as the perceived risk of losing one's job or employment stability, can intensify the harmful effects of work demands, especially for employees on non-permanent contracts (De Witte, 2005; Elshaer, 2024; WHO, 2024).

These concerns are particularly relevant in higher education. University lecturers face multiple and competing expectations, including teaching, research, student support, and administrative work. In China, these pressures have grown due to reforms and performance-based evaluation systems (Lau et al., 2002; Zhang et al., 2024).

Recent empirical evidence shows that job stress is not a minor issue among Chinese university teachers. For example, a national survey of 1,988 university teachers across 22 higher education institutions in China identified distinct stress groups; the extremely high-stress group accounted for 11.2% of the valid sample, indicating that a notable share of teachers experience very high pressure (Tian et al., 2024). In another large study of 7,565 local undergraduate university teachers, work stress was found to predict job burnout and turnover intention, and the authors emphasised teaching stress, research stress, economic stress, and daily work affairs as key sources of stress (Pei et al., 2024).

Policy attention to mental health and workplace well-being has also increased in China. For example, workplace health promotion has been discussed under the broader Healthy China initiative, including policies that encourage “healthy enterprise” practices and preventive workplace health culture (Sun et al., 2021). For universities, this is not only a well-being issue but also a performance issue, because stress and insecurity can weaken commitment and threaten staffing stability. Based on this context, the present research examined the links among role stressors, job stress, and organisational commitment among contract-based university lecturers in Jiangsu Province, China, and assessed the role of job insecurity as a key boundary condition in these relationships.

1.2 Problem Statement

China's higher education sector has experienced rapid expansion, stronger performance-based evaluation, and ongoing employment reforms. These changes have increased the workload for university lecturers and made employment conditions less predictable for many early-career and non-permanent staff. Recent evidence shows job stress is common among Chinese university teachers, with an "extremely high stress" cluster identified (Song et al., 2024; Tian et al., 2024). A large survey of local undergraduate university teachers link work stress to turnover intention, indicating institutional risk when stress is unmanaged.

Within this setting, contract-based lecturers face a particularly sensitive work situation. Their roles often require them to meet demanding teaching targets while also responding to research and service expectations. At the same time, their employment is commonly tied to fixed-term renewal and performance review, which increases perceived job insecurity. In the selected universities in Jiangsu Province, this insecurity is evident in the routine contract renewal process, where continuation is typically determined after periodic performance assessment against teaching load and research output requirements, creating uncertainty about job stability when benchmarks are not fully met. Employment-system reforms in Chinese universities have also been linked to "up-or-out" and contract renewal pressures, and prior evidence shows that non-renewal can occur when required benchmarks are not met (Pei et al., 2024; Wang et al., 2019). These conditions make contract-based lecturers more exposed to role ambiguity (unclear expectations), role conflict (incompatible demands), and role overload (excessive workload). Such role stressors are

widely theorized as direct triggers of job stress and, over time, may reduce employees' attachment to their institutions.

However, the research base still has key limitations that weaken practical guidance for university management. First, previous studies examine job stress without distinguishing employment status, although contract staff face different job security conditions (Lee et al., 2024; Üngüren et al., 2024). Evidence from China shows job security concerns differ between contract and permanent employees, shaping reactions to insecurity (Lu et al., 2021). Thus, findings from permanent-staff samples may not transfer to contract lecturers.

Second, earlier findings on job stress and organizational commitment are not fully consistent. In many settings, job stress is expected to reduce commitment, but some studies in China suggest that stress–commitment patterns can differ by context and may not always be negative, especially when employment constraints and limited alternatives shape employees' stay/leave calculations (Wang et al., 2020). Without testing commitment as a multidimensional construct (affective, normative, and continuance), it remains difficult to explain why some lecturers may remain committed in certain ways even under high stress.

Third, job insecurity is often discussed as an important condition in contract employment, but it is rarely tested as a boundary factor that alters the strength of stress processes in higher education. If job insecurity is high, role ambiguity and overload may be more harmful because uncertainty reduces perceived control and increases worry about contract renewal and career continuity. Conversely, when job insecurity is lower, the same role demands may be experienced as challenging but manageable. This gap is important because it affects what universities should prioritize: clarifying roles and workload alone may be insufficient if insecurity continues to amplify stress.

Therefore, the main problem addressed in this thesis is the lack of clear, sector-specific evidence on how role stressors translate into job stress and how that stress relates to organizational commitment among contract-based university lecturers in China, particularly when job insecurity is present. To address this problem, the study focuses on contract-based lecturers in Jiangsu Province and tests an integrated model that (i) links role ambiguity, role conflict, and role overload to job stress, (ii) examines how job stress relates to the three dimensions of organizational commitment, and (iii) evaluates job insecurity as a moderating condition that can intensify key stress relationships. The expected contribution is a more precise explanation of stress and commitment in China's contract-based academic workforce, with clearer implications for role design, workload allocation, and employment-support practices in universities.

1.3 Research Questions

Based on the problems presented in Section 1.2, this study aims to provide solutions to the following research questions:

- i. To what extent do role stressors (role ambiguity, role overload, and role conflict) predict job stress among contract-based university lecturers in Jiangsu Province, China?
- ii. To what extent does job stress predict organizational commitment (affective, normative, and continuance commitment) among contract-based university lecturers in Jiangsu Province, China?

- iii. To what extent does job insecurity moderate the relationships between role stressors (role ambiguity, role overload, and role conflict) and job stress among contract-based university lecturers in Jiangsu Province, China?

1.4 Research Objectives

The main objective of this study is to examine how role stressors (role ambiguity, role overload, and role conflict) relate to job stress, and how job stress relates to organizational commitment (affective, normative, and continuance) among contract-based university lecturers in Jiangsu Province, China. The study also evaluates whether job insecurity changes the strength of the relationships between role stressors and job stress.

To achieve this objective, the study addresses the following specific objectives:

- i. To examine the relationship between role stressors (role ambiguity, role overload, and role conflict) and job stress among contract-based university lecturers in Jiangsu Province, China.
- ii. To examine the relationship between job stress and organizational commitment (affective, normative, and continuance) among contract-based university lecturers in Jiangsu Province, China.
- iii. To investigate the moderating effect of job insecurity on the relationships between role stressors (role ambiguity, role overload, and role conflict) and job stress among contract-based university lecturers in Jiangsu Province, China.

1.5 Definition of Key Terms

The key terms in this study are defined as follows:

- i. Role stressors are work-related factors that produce adverse consequences for employees and are caused by unclear, conflicting, or incompatible expectations, which include role overload, role ambiguity, and role conflict (Qiang & Li, 2025).
- ii. Role ambiguity refers to the expectations that are vague and unclear to employees (De Clercq & Pereira, 2024; House & Rizzo, 1972).
- iii. Role overload refers to the expectations that exceed employees' time and abilities within the time available, given other constraints (Hecht, 2001; Rasool et al., 2024).
- iv. Role conflict refers to the expectations that are simultaneously contradictory or different from work colleagues that interfere with one another (Eatough et al., 2011; Zang et al., 2022)
- v. Job stress is a detrimental physical and emotional reaction when employees cannot fulfil their job demands (Li et al., 2021).
- vi. Job insecurity refers to the unwelcome likelihood that workers may feel uncertain about the risk of losing their current employment in the future, along with the apprehension or concerns associated with the potential of becoming unemployed (Kmieciak, 2023; Vander Elst et al., 2013).
- vii. Organizational commitment reflects a psychological condition showing an employee's allegiance to their company and the unwillingness to resign, which

shows the trust and acceptance of organizational goals and tenets, devotion to the organization, and a wish to keep membership with the organization (Allen & Meyer, 2000; Miao et al., 2022). The concept comprises three elements: affective, normative, and continuance commitment.

- viii. Affective commitment refers to an employee's positive emotional bond with their organization (Jianxi et al., 2024; Shore & Wayne, 1993).
- ix. Normative commitment relates to an employee's perceived duty to remain within the organization (Pimenta et al., 2024; Wiener, 1982).
- x. Continuance commitment involves an employee recognizing the costs of leaving the organization (Amos, 2024).
- xi. A contract lecturer refers to an academic staff member employed on a fixed-term basis, usually under time-limited contracts subject to periodic renewal. These lecturers typically lack tenure, receive fewer employment benefits, and have less job security than permanent lecturers (Guo, 2022; Leathwood & Read, 2022; Lopes & Dewan, 2014).
- xii. A permanent lecturer, also known as a tenured or regular faculty member, holds a long-term or indefinite appointment, with access to greater institutional support, job security, and structured career progression pathways (Batubara & Kausar, 2023; Sutoro, 2021).

1.6 Significance of the Study

Higher education relies on a stable and committed academic workforce. In China, contract-based university lecturers often work under fixed-term contracts and may face unclear role expectations, heavy workloads, and competing demands. These conditions can raise job stress and may weaken organizational commitment. For this reason, the present study is important because it examined how role stressors (role ambiguity, role conflict, and role overload) relate to job stress, and how job stress relates to organizational commitment among contract-based university lecturers in Jiangsu Province, China. The study also assessed whether job insecurity strengthens the effect of role stressors on job stress.

From a theoretical perspective, the study adds to the literature on workplace stress by testing an integrated model linking role stressors, job stress, and three forms of organizational commitment (affective, normative, and continuance). By focusing on contract-based lecturers in China's education sector, the study extends prior work that is often based on mixed employment groups or non-Chinese contexts. In addition, treating organizational commitment as a multidimensional construct helps explain why commitment patterns may differ across emotional attachment, moral obligation, and staying because of perceived costs.

From a practical perspective, the findings provide useful guidance for university management and relevant stakeholders. The results can support clearer role design, fair workload allocation, and more transparent performance and contract-renewal practices, thereby reducing uncertainty. The study also supports people-management actions that can strengthen commitment, such as improving communication, increasing support services, involving contract-based lecturers in policy discussions on working conditions, and

implementing recognition and reward systems that include contract-based staff. These actions are important because they can help reduce stress, improve staff stability, and support teaching quality and institutional performance.

1.7 Scope of the Study

This study was conducted in Jiangsu Province, China, and focused on contract-based university lecturers employed under fixed-term or short-term contracts. The empirical setting covered six applied undergraduate institutions located in cities such as Yancheng, Suzhou, Huai'an, Nanjing, Changzhou, and Lianyungang, which represent different local contexts within Jiangsu's higher education landscape. The conceptual scope examined (i) role stressors, role ambiguity, role conflict, and role overload, as the explanatory variables; (ii) job stress as the main outcome of role stressors; (iii) job insecurity as a moderator that changes the strength of the relationships between role stressors and job stress; and (iv) organizational commitment as a multidimensional construct (affective, normative, and continuance commitment) linked to job stress.

The population scope was restricted to lecturers who met the study criteria (contract-based status and at least one year of teaching experience). Permanent (tenured) lecturers and other occupational groups were not included. The findings should therefore be interpreted within the context of contract-based academic employment in Jiangsu. The methodological approach used a quantitative, cross-sectional survey. Data were collected using a structured questionnaire, and the analysis applied SPSS for descriptive checks and PLS-SEM (WarpPLS) for the measurement and structural model assessment.

1.8 Organization of Chapters

The thesis is composed of five Chapters. Chapter 1 serves as the introductory chapter, outlining the study's background, stating the problem, and explaining the research goals. Chapter 2 presents an overview of relevant literature, foundational theories, and the structure of the theoretical framework. Chapter 3 discusses the methodology used in this research study, including the research sites, research design, sample, data collection procedures, research questionnaires and measurement instruments, a pilot test of the questionnaires, data cleaning, and statistical analyses. This includes the use of the Statistical Package for the Social Sciences (SPSS) version 23.0 and WarpPLS version 8.0. Moreover, Chapter 4 presents the study's results. It reports a series of statistical findings from the research study, based on respondents' profiles, a statistical overview, measurement model assessment, and structural model assessment. Finally, the discussion of the findings is reported in Chapter 5. On top of that, the chapter outlines the theoretical and practical implications, future research, and potential limitations of the research.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature and theories that explain job stress among Chinese contract-based university lecturers and its links with role stressors, job insecurity, and organizational commitment. In this thesis, job stress is treated as the central mechanism: it is the outcome of role stressors and also the predictor of organizational commitment. Job insecurity is treated as a moderating effect that can strengthen or weaken the impact of role stressors on job stress.

Accordingly, this chapter first reviews job stress and its key sources in work roles. Next, it discusses the main antecedents in this study, namely role ambiguity, role conflict, and role overload. Then, it reviews job insecurity as a key feature of contract-based employment and explains why it can intensify stress processes. After that, the chapter reviews organizational commitment and its three dimensions (affective, normative, and continuance). Finally, the chapter presents the research gaps, explains the underpinning theories, and restates the conceptual framework to ensure consistency with the research questions, objectives, and later hypothesis development.

2.2 Role Stressors

Stress is a widely studied area across many fields. Numerous definitions exist, primarily focusing on role stress. For example, Ning et al. (2024) define "role stressors" as elements within an organizational role that result in adverse consequences for the individual.

Earlier research by Shukla et al. (2024) found that role stress is associated with incongruity or incompatibility between an employee's role expectations and the outcomes expected from their work-related roles. Furthermore, Okolie and Uwayah (2024) emphasized that role stressors arise from conflicting, incompatible, or unclear expectations from the work environment. Ågotnes et al. (2024) defined role stressors as stress because they were considered problematic in the context of positions within social work environments. According to Lambert et al. (2024), role overload, role ambiguity, dangerousness, and role conflict are significant predictors of employee conduct. Rasool et al. (2024) also confirmed that role stressors were the most common work-related stressors, including role overload, role ambiguity, dangerousness, and conflict.

The study by Liu et al. (2024) highlighted that role stressors have been extensively examined in occupational health. They categorized these stressors into three main types: role ambiguity, role conflict, and role overload. Role ambiguity pertains to unclear and vague employee expectations (Maden-Eyiusta, 2021). Role conflict refers to conflicting expectations from coworkers that hinder productivity (Dodanwala et al., 2023). Role overload refers to situations in which employees feel overwhelmed by numerous responsibilities and tasks, taking into account time constraints and their capabilities (Tang & Vandenberghe, 2021). Lastly, Dodanwala et al. (2023) state that role stressor refers to the stress experienced by individuals in their work roles. It often arises from the pressures and demands of a particular job or work environment.

In higher education, role stressors are common because lecturers often carry multiple responsibilities simultaneously (teaching, research, student support, and administrative tasks). For contract-based lecturers, these role demands can be more stressful because

contract renewal and performance evaluation may increase pressure to meet several targets within a limited time period. Therefore, role ambiguity, role conflict, and role overload are highly relevant stressors for understanding job stress in the academic sector, particularly for contract-based lecturers.

2.2.1 Classification of Role Stressors

Various researchers have categorized role stressors in the literature from different perspectives, including role conflict, role ambiguity, role overload, danger, and nonparticipation. Liu et al. (2024) initially described role ambiguity as involving a lack of predictability in the results of role performance. Additionally, Baraldi et al. (2023) observed that while role conflict is associated with adverse personal consequences, the correlation is typically weaker than role ambiguity. Suryani et al. (2024) and Alblihed and Alzghaibi (2022) classified role stressors into role ambiguity and conflict. Role conflict occurs when there is a mismatch between the demands of a role and the standards or conditions that affect how the role is performed. This misalignment can be understood in terms of congruence or compatibility. Amarilli et al. (2023), in a study on the impact of role stress on the psychological states valued by employing organizations, classified role stress as role overload, role ambiguity, and nonparticipation.

Many research efforts addressing job-related stress have concentrated on two main elements: lack of clarity and interpersonal conflict (DeMatthews et al., 2021; O'Driscoll & Beehr, 1994; Raub et al., 2021). Some researchers have categorized role stressors as role conflict and ambiguity (Ahmad et al., 2021; Greenhaus & Parasuraman, 2014; Lankau et al., 2006; Um & Harrison, 1998). The Dodanwala et al. (2023) study categorized role stressors

as conflict and ambiguity. Other scholars have classified role stressors as role ambiguity, conflict, and role overload (Abdel - Halim, 1978; Chiu et al., 2015; Eatough et al., 2011; Rafiq et al., 2021). Role conflict arises when the expected behaviors for a particular role are at odds with each other, as Dijkstra et al. (2020) described. This conflict manifests when adhering to one set of demands hinders or contradicts compliance with another, as Hayne et al. (2023) noted. Role ambiguity involves uncertainty or insufficient information about how to fulfil a role's responsibilities. Role overload happens when an individual is burdened with excessive tasks. The perceived dangerousness of a job relates to an employee's belief that their work is hazardous, leading to feelings of insecurity while performing job duties, as indicated by Probst et al. (2020).

Lambert et al. (2021) identified critical work-related stressors prevalent in correctional job environments. These stressors, widely acknowledged in the relevant literature, include role conflict, role ambiguity, role overload, and the inherent dangers of the job. Their research particularly highlighted these factors as significant stressors in private prison settings. Concerning the above literature, this paper classifies role stressors into role conflict, role ambiguity, and role overload.

Table 2.1 summarizes various studies that examine the classification and impact of role stressors across different organizational settings. Researchers have consistently identified key role stressors, including role ambiguity, conflict, and overload. Studies such as those by Dodanwala et al. (2023) and Alblihed and Alzghaibi (2022) highlight these stressors' significant negative impacts on employee well-being and job satisfaction.

Table 2.1: Classification and Impact of Role Stressors

Author(s)	Variables Examined	Sample Characteristics	Findings
Kahn et al. (1964)	Role ambiguity	Professional employees across various U.S. industries	Role ambiguity reduces predictability in role outcomes and increases employee stress.
Rizzo et al. (1970)	Role ambiguity, role conflict	Employees from multiple organizational levels in business settings	Role ambiguity and conflict were confirmed as key contributors to psychological strain and work dissatisfaction.
Beehr et al. (1976)	Role overload, role ambiguity, and nonparticipation	Mid-level employees from public and private sector organizations	Role overload and ambiguity were significant stressors, especially when paired with nonparticipation.
Abdel-Halim (1978),	Role overload, role ambiguity, and role conflict	Organizational employees	Role overload, role ambiguity, and conflict were associated with reduced employee morale and increased strain.
Um and Harrison (1998)	Role ambiguity, role conflict	Social workers in government and non-profit agencies	Role ambiguity and conflict interfered with job clarity and performance in social service contexts.
Tubre and Collins (2000),	Role conflict	Employees in technical, managerial, and service-related occupations	Role conflict was linked to negative psychological outcomes, though its effects were typically weaker than those of role ambiguity.
Lankau et al. (2006),	Role conflict, role ambiguity	Supervisory and non-supervisory staff from diverse job functions	Role conflict and role ambiguity were negatively associated with job performance metrics.
Eatough et al. (2011)	Role overload, role conflict, role ambiguity	Employees across healthcare, education, and service industries	Role overload, conflict, and ambiguity contribute to workplace stress and reduced employee well-being.
Greenhaus and Parasuraman (2014),	Role ambiguity, role conflict	Professionals in dual-career households across multiple sectors	Role ambiguity and conflict led to emotional fatigue and decreased professional engagement.

Table 2.1: continued

Author(s)	Variables Examined	Sample Characteristics	Findings
Yongkang et al. (2014)	Role overload, role conflict, role ambiguity	Middle-level government officials in Chinese municipal departments	Role overload, role conflict, and role ambiguity were major causes of mental exhaustion among government staff.
Pratiwi (2019)	Role overload, role ambiguity, role conflict	Academic and non-academic staff in Indonesian universities	Role overload, role ambiguity, and conflict negatively affect job satisfaction and commitment.
Probst et al. (2020)	Role overload, role ambiguity, role conflict	Workers in hazardous occupations, including construction and mining	Role overload, role ambiguity, and role conflict were intensified by perceptions of job danger, leading to psychological discomfort.
Dijkstra et al. (2020)	Role ambiguity, role conflict	Technical and professional employees in high-demand positions	Role ambiguity and conflict decreased job effectiveness due to incompatible expectations.
Raub et al. (2021)	Role overload, role ambiguity, nonparticipation	Employees in the hospitality, retail, and manufacturing sectors	Role overload, role ambiguity, and nonparticipation reduce worker engagement and increase disengagement.
Lambert et al. (2021)	Role conflict, role ambiguity, role overload, and dangerousness	Correctional job environments	Role conflict, role ambiguity, and role overload were identified as significant stressors, amplified by job-related dangerousness.
Hoseini et al. (2021)	Role overload, role conflict, role ambiguity	Correctional officers in U.S. prison facilities	Role overload, role conflict, and role ambiguity were confirmed as widespread and impactful stressors in modern workplaces.
Ahmad (2023)	Role ambiguity, role conflict	Employees in multiple sectors	Role ambiguity and role conflict showed a strong positive correlation with increased levels of job stress.

Later research by Greenhaus and Parasuraman (2014) supports these findings, emphasizing the adverse effects of unclear, conflicting, or excessive role expectations. Other studies, like those by Raub et al. (2021) and Pratiwi (2019), further categorize and confirm these stressors' prevalence and detrimental effects on job satisfaction and organizational commitment. Overall, this table illustrates the consistent findings across multiple studies, underscoring stressors' critical role in impacting employees' psychological states and organizational outcomes.

The decision to focus on role ambiguity, role conflict, and role overload in this study is based on their consistent identification in the literature as the most pervasive and impactful stressors across various organizational settings. Unlike other stressors, such as dangerousness and nonparticipation, which are often context-specific or limited to certain high-risk or specialized environments, ambiguity, conflict, and overload are widely applicable across professions and industries (Abdou et al., 2024; Ågotnes et al., 2024; Ilyas et al., 2025). This universality makes them particularly relevant for understanding workplace stress in the context of higher education, where lecturers frequently face unclear expectations, conflicting demands, and excessive workloads. Furthermore, these three stressors have demonstrated strong correlations with critical outcomes such as job stress, job satisfaction, and organizational commitment, which are central to this study. The research aims to provide a robust and actionable framework for addressing stress-related challenges in academic settings by narrowing the focus to these core components.

2.3 Employee Wellbeing

Early research described occupational stress as a mismatch between a person's capabilities and the demands of the workplace (Guo et al., 2022). Stress arises when job demands are too high or when a person lacks the resources to handle the situation. Lapierre and Cooper (2023) further explained occupational stress as emotional and physical responses triggered by threatening aspects of the work environment. Abdou et al. (2024) noted that occupational stress often involves unclear roles, conflicts, and excessive workload. Some scholars also define occupational stress as work-related demands that are excessively challenging or harmful, thereby distinguishing it from milder negative experiences such as dissatisfaction (Joshi et al., 2022; Untarini et al., 2020). Zhang et al. (2020) noted that rapid changes in modern work, including technological advances and a faster pace, can increase stress.

Job stress is also shaped by how individuals evaluate their work situations. When combined pressures from work and non-work roles exceed coping capacity, stress increases (Ahmad et al., 2021; Pleck et al., 1980). Workplace stress can arise from job tasks, organizational structure, and relationships with coworkers and clients (Alblihed & Alzghaibi, 2022; Dworkin et al., 1990). Job stress is reflected in feelings such as anxiety, irritation, emotional fatigue, and unease about work conditions (Chen et al., 2022; Ning et al., 2024). Importantly, job stress is not solely caused by individual perceptions; it is also linked to broader organisational factors, such as leadership style, culture, and work-life conditions (Chen et al., 2022; Costin et al., 2023).

The job stress mainly includes company employees, bank employees, academic staff, government officers, and health care workers. Ghani et al. (2022) explored how four specific

job stressors (unclear roles, excessive workload, underused skills, and insufficient resources) affect employee behaviors such as missing work and quitting. Later, Xie et al. (2021) investigated how organizational commitment influences the relationship between job stress and work performance among staff in the Malaysian and Pakistani branches of a major multinational corporation. Costin et al. (2023) examined the connections between job stress and employees' intention to leave and their work performance, considering how self-esteem tied to the organization can moderate these effects, using data from workers at the Iranian National Drilling Company. (Debus et al., 2020) delved into the fundamental causes of job stress, such as conflicting roles and unclear job responsibilities, and analyzed their impact on job satisfaction and performance among employees in different areas of Bahawalpur, Pakistan.

Said and El-Shafei (2021) studied the relationship between occupational stress and job satisfaction. This research evaluated factors contributing to job stress, including managerial responsibilities, interpersonal relationships, workload, conflicts between work and home life, unclear job roles, and pressure to perform. Dodanwala et al. (2023) investigated the impact of conflicts between work and family life on job stress and organizational commitment among elementary school lecturers in Turkey. Sunaryo et al. (2024) investigated the contributors to job stress among university academic staff, emphasizing the role of external pressures, workplace dynamics, and coping strategies. The study highlighted that organizational culture and support systems significantly influence how academic staff perceive and manage stress, suggesting that fostering a positive work environment could mitigate the adverse effects of stress. The participants were academic staff from universities in Jogjakarta, Indonesia. Nisar and Rasheed (2020) conducted a study on academic staff stress levels in Pakistan's private universities, examining the various

stressors they face in their professional roles. Ahmad (2023) investigated the association between role ambiguity and job stress among employees at a Canadian government agency's regional office. Duxbury and Halinski (2018) extended this line of research by examining the relationship between role overload and job stress in Canadian male and female police officers. Further, Kristanto et al. (2021) focused on government officers in Baperlitbang Banjarnegara, Indonesia, to study the interplay between job stress and performance.

Healthcare professionals frequently encounter challenging work environments due to the demands and nature of their profession. Therefore, it is common for healthcare workers to experience job stress. Joshi et al. (2022), Alblihed and Alzghaibi (2022), Annamalai (2022), Costin et al. (2023), and Debus et al. (2020) conducted studies on the work stress of healthcare workers. Cooper et al. (1989) conducted a study of randomly selected general practitioners in England, chosen by family practitioner committees, to identify the causes of job stress that lead to significant job dissatisfaction and adverse mental well-being among these medical professionals.

Lee et al. (2024) examined the impact of work-related stress on the job performance of hospital nurses and how coworker support influences this stress-performance dynamic. The research employed a correlational, descriptive survey approach, targeting a sample of American and non-American hospital nurses, with the latter group recruited via online platforms. Furthermore, other studies, such as Hunter et al. (2024), Prompahakul and Epstein (2020), and Solomon et al. (2022), examined the stress of nurses randomly selected from hospitals in Iran. Li et al. (2021) examined job stress among healthcare personnel in the Eastern Cape Province of South Africa. Purbrick et al. (2024) studied the job stress of house officers at the Synergy Institute of Medical Sciences & Hospital in Dehradun, India.

The review highlights that job stress arises from a mismatch between an individual's skills and workplace demands, unclear roles, excessive workload, and conflicting expectations. These stressors elicit significant emotional and physical responses, affecting job satisfaction, organizational commitment, and performance. With rapid technological changes and increased demands, modern work environments exacerbate job stress. Effective management strategies, supportive organizational cultures, and interventions targeting specific stressors are crucial for mitigating job stress and improving employee well-being and performance across various professional settings.

Table 2.2 summarises various studies examining job stress across different professions and organizational settings. These studies identify vital stressors such as role ambiguity, excessive workload, and conflicting roles and their impacts on employee well-being and performance. The research includes diverse samples like employees in various industries, academic staff, government officers, and healthcare workers. The findings consistently highlight the significant negative effects of job stress on job satisfaction, organizational commitment, and overall employee performance, underscoring the need for effective stress management strategies in the workplace.

While previous studies have extensively explored the factors contributing to job stress, including role ambiguity, excessive workload, unclear roles, and interpersonal conflicts, the current research landscape reveals gaps in understanding the interplay between stressors in specific professional contexts. For instance, research has frequently focused on healthcare workers (Cooper et al., 1989; Joshi et al., 2022) and government officers (Kristanto et al., 2021), identifying the challenges unique to those professions.

Table 2.2: Previous Studies on Job Stress

Sources	Variables Examined	Sample Characteristics	Findings
Gupta and Beehr (1979)	Job stress factors	Employees from various organizations, including a printing firm, an R&D enterprise, automotive parts suppliers, and a medical facility service division	Unclear roles, excessive workload, underused skills, and limited resources were positively linked with absenteeism and turnover behavior.
Cooper et al. (1989)	Job stress	Randomly selected general practitioners in England	Job stress was significantly associated with job dissatisfaction and impaired mental well-being.
Irving and Coleman (2003)	Role ambiguity, job stress	Employees at a Canadian government agency's regional office	Role ambiguity was positively correlated with job stress, highlighting unclear expectations as a key source of tension.
Abualrub et al. (2010).	Work-related stress, job performance	American hospital nurses and non-American nurses	Work-related stress negatively affected job performance; however, coworker support moderated this effect positively.
Jamal (2011)	Job stress, organizational commitment	Employees of a major multinational corporation in Malaysia and Pakistan	Organizational commitment moderated the relationship between job stress and performance; higher commitment reduced the adverse effects of stress.
Arshadi and Damiri (2013)	Job stress, intention to leave, work performance	Employees of the Iranian National Drilling Company	Job stress increased intention to leave and lowered performance; organizational self-esteem buffered these effects.
Rizwan et al. (2014)	Job stress factors, job satisfaction, performance	Employees in Bahawalpur, Pakistan	Conflicting roles and unclear job responsibilities were positively related to job stress and negatively related to job satisfaction and performance.
Nart and Batur (2014)	Work-family conflict, job stress, and organizational commitment	Elementary school lecturers in Turkey	Role stressors and job insecurity significantly predicted job stress; leadership style partially moderated the impact.

Table 2.2: continued

Sources	Variables Examined	Sample Characteristics	Findings
Safaria (2014)	Job stress, role stressors, job insecurity, leadership styles	University academic staff in Jogjakarta, Indonesia	Role stressors and job insecurity significantly predicted job stress; leadership style partially moderated the impact.
Karimi et al. (2014)	Job stress	Nurses from the emergency and surgery departments in Yasuj, southwest Iran	Nurses in high-stress departments reported elevated job stress due to workload and patient care demands.
Kafashpoor et al. (2014)	Job stress	Nurses in Mashhad's public hospitals in Iran	Job stress was widespread among hospital staff, attributed to high-pressure working conditions.
Alipour and Kamaee Monfared (2015)	Job stress	Nurses working in the hospitals of Behbahan, Iran	Job stress was high among hospital nurses due to long hours and a lack of support.
Ruzungunde et al. (2016)	Job stress	Healthcare personnel in the Eastern Cape Province of South Africa	Job stress levels were high due to workload and limited healthcare infrastructure.
Duxbury and Halinski (2018)	Role overload, job stress	Canadian male and female police officers	Role overload was positively associated with job stress; gender differences influenced stress sources and intensity.
Tripathi et al. (2019)	Job stress	House officers at Synergy Institute of Medical Sciences & Hospital, Dehradun, India	Job stress was prevalent among junior doctors, stemming from workload and emotional strain.
Said and El-Shafei (2021)	Occupational stress, job satisfaction	Diverse employees	Occupational stress was negatively associated with job satisfaction; high workload and low autonomy were key predictors.
Kristanto et al. (2021)	Job stress, performance	Government officers in Baperlitbang Banjarnegara, Indonesia	Increased job stress led to reduced performance; stress management was identified as a critical need.

Similarly, investigations into academic staff (Nisar and Rasheed, 2020; Sunaryo et al., 2024) have underscored the role of organizational culture, work-life balance, and leadership styles in shaping stress experiences. However, these studies have often treated stressors as isolated rather than examining their cumulative and dynamic impact on job stress and associated organizational outcomes.

Moreover, while some research (Abualrub et al., 2010; Said and El-Shafei, 2021) has examined moderating influences like coworker support and managerial responsibilities, there is a limited exploration of how broader organizational and economic contexts shape the perception and management of stress. This study distinguishes itself by focusing on the novel and context-specific relationships among well-established stressors while addressing underexplored factors and their compounded effects in modern professional settings.

2.3.1 The Relationship between Role Stressors and Job Stress

In examining the link between unclear job roles and workplace stress, a study by Maryani and Gazali (2024) focused on employees at a regional branch of a Canadian government agency, considering the influence of commitment to the organization. Their findings indicate a connection between the lack of clarity in job roles and increased job tension, echoing earlier research by Chin et al. (2023) that arrived at similar conclusions.

Some researchers study the relationship between role conflict, role overload, and job stress. Parvaiz et al. (2015) revealed that role conflict and role overload were positively associated with job stress. Their research object was academic staff from private universities in Pakistan. Low et al. (2017) focused on female university lecturers to study the relationship between role overload and job stress. The research indicated a direct relationship between

role overload and job stress among female university educators. This positive association between excessive work demands and heightened stress levels was echoed in a separate study at the University of Dammam, highlighting the role of overload's impact on academic staff's psychological well-being. These results align with the conclusions drawn in similar studies by Posig and Kickul (2003) and Kebelo (2012), further affirming this relationship in the academic environment.

A study was conducted by Lambert et al. (2022), focusing on the influence of various role stressors on job stress, satisfaction, and commitment within a private prison in the Midwest. Their findings revealed that factors such as role conflict, ambiguity, overload, and the inherent dangers of the job had a notable impact on job stress, satisfaction, and commitment levels among the prison staff. It was observed that these stressors were positively linked to job stress, with increased role conflict, ambiguity, overload, and job danger leading to heightened job stress. Among these, role overload showed the most significant correlation, followed by role ambiguity, conflict, and job dangerousness. Karimi et al. (2014) and Tsegaw et al. (2022) analyzed the extent of job-related stress experienced, focusing on how excessive work responsibilities, conflicting roles, and unclear job expectations contribute to this stress. Their findings showed a notably high degree of occupational stress within this group. The study revealed a clear, direct, and positive correlation between increased responsibilities, role conflicts, lack of clarity in job roles, and job-related stress.

The findings of Vickovic and Morrow (2020). and Mack and Rhineberger-Dunn (2022) have also been confirmed by later research of Su et al. (2023) on the middle-level cadres in Chinese local government, Parvaiz et al. (2015) on the academic staff of private

universities in Pakistan, and Rangrez et al. (2022) on the employees of start-up companies in India. Bagdžiūnienė et al. (2022) conducted a study that examined the relationship between supportive leadership, job resources, and teacher resilience in Lithuanian schools. The study found that supportive leadership and job resources influence teacher resilience. Annamalai (2022) study explored the effects of perceived equity and job enrichment on burnout, job satisfaction, and the desire to quit among educators in Indian private universities. The study demonstrated significant influences on job satisfaction and intent to exit.

Table 2.3 summarizes research on the effects of role stressors such as role ambiguity, conflict, and overload on job stress across various professions. Key findings indicate that these stressors significantly increase job stress, resulting in negative outcomes such as reduced job satisfaction, decreased performance, and lower organisational commitment. Studies also reveal the facilitating role of job insecurity and highlight varying impacts across factors such as gender, leadership practices, and specific work environments. For instance, excessive work responsibilities tend to increase stress more in male police officers, while excessive family responsibilities do so in female officers. Positive leadership practices can also mitigate job stress, while poor organizational culture can exacerbate it. The research underscores the need to address role stressors through effective management strategies to enhance employee well-being and improve organizational outcomes.

Table 2.3: Relationship Between Role Stressors and Job Stress

Author(s)	Variables Examined	Sample Characteristics	Findings
Stout and Posner (1984)	Stress, role ambiguity, role conflict, job satisfaction	Employees in mental health, mental retardation, and physical rehabilitation facilities	There is a significant correlation between role ambiguity and job stress. Higher stress levels are often linked with increased ambiguity in one's role.
Irving and Coleman (2003)	Role ambiguity, job tension, different forms of organizational commitment	Employees of a regional branch of a Canadian governmental agency	Job tension is found to have a positive correlation with continuance commitment. Individuals with a higher level of continuance commitment tend to be more vulnerable to organizational stressors than those with a lower level of such commitment.
Lambert et al. (2005a)	Role conflict, role ambiguity, role overload, dangerousness, job stress	Private prison staff	Factors such as role conflict, ambiguity, overload, and perceived danger significantly impact the levels of job stress, satisfaction, and organizational commitment among staff in private prisons.
Ram et al. (2011).	Role conflict, role ambiguity, work stress	Pakistani managers of manufacturing industries	Role conflict and role ambiguity are positively and significantly related to work stress.
Safaria (2014)	Leadership practices, role ambiguity, role conflict, job stress, religious coping	Academic staff from Jogjakarta, Indonesia	Leadership practices, role ambiguity, and role conflict are directly and significantly linked to job insecurity. Role conflict and role ambiguity also directly and significantly impact job stress.
Karimi et al. (2014)	Role overload, role conflict, role ambiguity, occupational stress, job stress	Nurses in Yasuj hospitals in southwest Iran	Role overload, conflict, ambiguity, and occupational stress are significantly and positively related.
Yongkang et al. (2014)	Role conflict, role ambiguity, role overload, job stress	Chinese Middle-Level Cadres	Job anxiety and stress are significantly and positively related to factors like role ambiguity, role conflict, and role overload. Role ambiguity considerably heightens job anxiety and stress. Role conflict and role overload significantly contribute to increased time pressure and elevated levels of job anxiety and stress.
Parvaiz et al. (2015)	Role conflict, role overload, leadership support, organizational politics, stress	Academic staff of private universities in Pakistan	All the independent variables are significantly and positively correlated with stress.

Table 2.3: continued

Author(s)	Variables Examined	Sample Characteristics	Findings
Alghamdi (2017)	Role overload, job stress	Female university lecturers	There is a notable positive correlation between the extent of role overload and the level of job stress experienced.
Halinski and Duxbury (2017)	Role overload, stress	Male and female police officers in Canada	The connection between excessive work responsibilities and stress is more pronounced in male police officers, while the link between excessive family responsibilities and stress is more evident in female police officers.
Mittal and Bhakar (2018)	Role overload, job stress, job satisfaction, job performance	Married working women in the banking sector in the Raipur Chhattisgarh region of India	Role overload significantly influences job-related stress. Employees who experience an excess of responsibilities often demonstrate reduced efficiency and subpar performance. However, a minor performance improvement is observed with moderate role overload, suggesting that a certain stress level can benefit performance.
Adiguzel and Kucukoglu (2019)	Work stress, role conflict, job insecurity, organizational culture	White-collar employees working in different departments of different companies	A certain amount of positive stress motivates employees, increases job satisfaction, and supports employee performance and development.
Rahayu and Hidayat (2021)	Role conflict, employee performance, job stress	Employees of the Regional Financial and Asset Management Office in Yogyakarta, Indonesia	Role conflict negatively affects employee performance. Role conflict positively influences job stress. Job stress negatively impacts employee performance. Role conflict has a negative effect on employee performance through the mediation of job stress.
Rangrez et al. (2022)	Role conflict, role ambiguity, job insecurity, role overload, turnover intention, job stress	Employees of start-up companies in India	Role overload, conflict, and ambiguity directly correlate with increased job stress. Job insecurity is a partial mediator in the link between job stress and aspects such as role conflict, role ambiguity, role overload, and the intention to leave the job.

While the reviewed studies provide valuable insights into the relationship between role stressors and job stress across various professional settings, they often focus on specific contexts such as healthcare workers (Karimi et al., 2014), academic staff in private universities (Parvaiz et al., 2015), or employees in high-risk environments like private prisons (Lambert et al., 2022). These studies have highlighted the significant impact of role ambiguity, conflict, and overload on job stress, the facilitating role of job insecurity, and the moderating effects of leadership practices and organizational culture.

However, much of the existing research has either focused on a single aspect of role stressors or examined their effects in isolation from broader organizational outcomes. Additionally, the contexts examined often lack the unique complexities of higher education in rapidly changing systems, such as those in Jiangsu Province, China. Unlike previous studies, which often emphasize generalizable findings across diverse industries, this study examines the compounded and dynamic effects of role stressors on job stress in a highly competitive academic environment, aiming to uncover novel insights specific to this underexplored context.

2.4 Job Insecurity

Job insecurity as a potential cause of stress (Anand et al., 2023). Job insecurity refers to an employee's perceived risk to the continuity and stability of current employment. This issue has received sustained attention because technological change, economic uncertainty, and shifts in employment practices have heightened concerns about the future stability of jobs. Job insecurity is important because it affects both employees and organizations. It can

shape how employees think about their work, how they respond emotionally, and how they behave toward the organization.

Greenhalgh and Rosenblatt (1984) described job insecurity as a subjective feeling of being unable to maintain a desired job situation, perceived as threatened. This definition highlights two key points. First, job insecurity is often based on perception rather than on formal termination decisions. Second, the feeling of insecurity is linked to the employee's interpretation of the work environment and the employment situation. In this way, job insecurity is not only about whether a job is truly at risk. It is also about whether employees believe their job future is uncertain and beyond their control.

Since the late 1990s, job insecurity has received greater global attention (De Witte et al., 2010). In the literature, job insecurity is commonly defined as a worker's apprehension regarding the future existence of their role (Hartley et al., 1990; Witte, 1999). Many scholars treat job insecurity as a perception-based condition (Hartley et al., 1990; Kakar et al., 2023), meaning that some employees may feel insecure even in the absence of an objective threat, while others may feel secure despite real risk (Marx-Fleck et al., 2021). This view is important for understanding why job insecurity can vary across employees within the same organization. Employees do not always react to the same employment condition in the same way, because they differ in how they interpret signals, assess risk, and evaluate future outcomes.

Job insecurity can also be explained through cognitive and affective perspectives. From a cognitive perspective, job insecurity involves the perception that employment stability is threatened. From an affective perspective, this perceived threat can trigger emotional responses such as worry, tension, and stress. In line with this view, Dodanwala et

al. (2023) described job insecurity as an individual's subjective estimation of the risk of involuntary job loss. This perceived risk can lead to negative outcomes by creating uncertainty and reducing employees' sense of stability. Studies have linked job insecurity to negative work attitudes and stress-related reactions (Cheng & Chan, 2008; Debus et al., 2020; Sverke et al., 2002). Similarly, De Witte (2005) described job insecurity as a transitional state between employment and unemployment, focusing on employees who experience anxiety about possible job loss. Ahmad et al. (2021) also described job insecurity as a person's anticipation regarding the persistence of their role at work, while Weichselbraun et al. (2024) viewed it as a general worry about the job's future.

In higher education, job insecurity becomes especially relevant when employment is tied to fixed-term contracts and renewal decisions. Contract-based lecturers may face uncertainty about continued employment, long-term career development, and stable income. This uncertainty can intensify when renewal criteria are not fully transparent or when evaluation systems emphasize short-term performance outcomes. In such conditions, job insecurity can influence how lecturers interpret role demands. For example, unclear job expectations, conflicting demands, and heavy workload may be experienced as more threatening when employment stability is uncertain. In other words, job insecurity can shape how strongly role stressors translate into job stress, because insecure employees may feel that mistakes and unmet targets have more serious consequences.

Job insecurity has also been examined as a moderator in prior research (Callea et al., 2016; Safaria, 2014; Safaria et al., 2011; Xueyun et al., 2024; Zhang et al., 2015). This stream of research supports the argument that job insecurity can change the strength of relationships between work stressors and stress outcomes. In particular, Safaria et al. (2011) and Guo et

al. (2022) examined job insecurity as a moderator of the relationship between role stressors and job stress. Based on this theoretical and empirical background, the current study positions job insecurity as a moderator that may strengthen the effect of role ambiguity, role conflict, and role overload on job stress among contract-based university lecturers.

2.4.1 The Relationship between Job Insecurity and Role Stressors

The research on the relationship between job insecurity and role stressors has different findings. This may be a result of the different research contexts and research objects. Mahmoud et al. (2021) studied job insecurity's content, causes, and consequences. The study subjects comprised individuals working in various roles and organizations in the northeastern region of the United States. These roles included industrial hygienists, auditors, registered nurses, and part-time students working full-time. The research revealed a positive relationship between organizational changes, unclear job roles, and an external locus of control with feelings of job insecurity. Conflicts in job roles were not significantly connected to job insecurity. Meanwhile, the research of Adiguzel and Kucukoglu (2019) indicated that job insecurity and role conflict had a significant negative relationship, whose research objects were white-collar employees in Turkey.

However, Lee et al. (2024) found that role ambiguity was unrelated to perceptions of job insecurity. They investigated the antecedents of job insecurity in restructuring organizations, such as perceived organizational support, role ambiguity, role overload, etc., to study their relationship with job insecurity across the change stages and employment contracts. The objects were volunteers from around New Zealand who were or would be involved in a restructuring process from several different organizations and occupational

areas. It was found that there was a significant negative relationship between role overload and job insecurity, while role ambiguity was not related to perceptions of job insecurity.

Some other research studies find that role ambiguity and conflict positively correlate with job insecurity. In the research by Rose (2024), the finding concerning the relationship between role ambiguity and role conflict showed that both had a significant effect on creating job insecurity; that is, they were positively related to job insecurity, which was confirmed by Jiang (2024). Subsequent analysis of a meta-study on the factors leading to job insecurity revealed a direct link between this insecurity and elements such as role ambiguity and conflict. The study indicated a significant correlation between increased job insecurity and heightened levels of role ambiguity. It was observed that employees who lacked clarity regarding their job responsibilities and objectives tended to experience more anxiety about the stability of their employment.

Similarly, an escalation in role conflict corresponded with increased job insecurity. These observations imply a positive correlation between both role ambiguity and role conflict and the likelihood of job insecurity. Later, the study of Fadli et al. (2024) examined the effects of work-family conflict and job insecurity on organizational commitment, considering role stress as a mediating factor. Their analysis of role stress included three aspects: role ambiguity, role conflict, and role overload. The findings indicated a notable positive correlation between job insecurity and role stress.

Table 2.4 comprehensively summarizes various studies investigating the relationship between job insecurity and other organizational variables in different contexts and with different variables.

Table 2.4: Relationship Between Job Insecurity and Role Stressors

Author(s)	Variables Examined	Sample Characteristics	Findings
Ashford et al. (1989)	Organizational change, role ambiguity, role conflict, locus of control, job insecurity	Employees from a variety of organizations in the northeastern United States	Organizational changes, role ambiguity, and external locus of control are positively associated with job insecurity. However, role conflict is unrelated to job insecurity.
Blackmore and Kuntz (2011)	Organizational support, perceived employability, role ambiguity, role overload, and job insecurity	Employees from around New Zealand are involved in a restructuring process	A substantial inverse correlation exists between the excess of responsibilities in a role and the sense of insecurity in one's job, but role ambiguity is unrelated to perceptions of job insecurity.
Keim et al. (2014)	Predictors of job insecurity, including locus of control, role ambiguity, conflict, and job insecurity	Samples from other studies included in this review	Job insecurity is related to higher amounts of role ambiguity. Individuals who lack clarity regarding their job responsibilities and objectives tend to experience increased anxiety about maintaining employment. Significant role conflict is related to greater job insecurity.
Safaria (2014)	Leadership practices, role ambiguity, role conflict, job stress	Academic staff from Jogjakarta, Indonesia	The relationship between leadership practices, role ambiguity, and role conflict is directly and significantly linked to job insecurity. Role conflict and ambiguity are directly and significantly related to job stress.
Inayati and Apriliya (2017)	Work-family conflict, job insecurity, organizational commitment	Employees of PT. Mitra Kabel Indonesia in Surabaya	Job insecurity has a positive and significant impact on the role of stress (role ambiguity, role conflict, and role overload).
Adiguzel and Kucukoglu (2019)	Work stress, role conflict, job insecurity, organizational culture	White-collar employees in Turkey	Job insecurity and role conflict have a significant negative relationship.
Mahmoud et al. (2021)	Organizational change, unclear roles, external locus of control, job insecurity	Workers in various roles, including hygienists, auditors, and part-time student workers	Organizational changes, unclear roles, and external locus of control are positively associated with job insecurity. Role conflict is not significantly linked to job insecurity.
Lee et al. (2024)	Role ambiguity, role overload, and job insecurity	Volunteer employees from New Zealand involved in organizational restructuring	Role overload has a significant negative relationship with job insecurity, while role ambiguity is unrelated to perceptions of job insecurity.

Table 2.4: continued

Author(s)	Variables Examined	Sample Characteristics	Findings
Rose (2024)	Role ambiguity, role conflict, job insecurity	Employees in diverse industries	Role ambiguity and conflict correlate with job insecurity, with ambiguity significantly predicting anxiety about job stability.
Fadli et al. (2024)	Work-family conflict, job insecurity, role stress	Employees from various industries	Job insecurity positively correlates with role stress, including role ambiguity, conflict, and overload.

The relationship between job insecurity and role stressors reveals complex dynamics influenced by various contexts and facilitating factors. Role ambiguity and role conflict are often linked to increased perceptions of job insecurity, as unclear responsibilities and contradictory demands amplify feelings of instability. However, some studies suggest no significant connection between role ambiguity and job insecurity, indicating that this relationship may depend on contextual elements such as organizational restructuring or support systems. Role overload presents mixed findings, with some studies suggesting a negative relationship, where employees with excessive responsibilities feel more secure due to their indispensability, while others highlight a positive relationship, where heavy workloads contribute to stress and insecurity.

Contextual factors such as organizational culture, leadership practices, and external pressures shape these relationships. Supportive leadership, for instance, can mitigate the adverse effects of role stressors on job insecurity. The patterns suggest that the combined impact of multiple stressors often heightens job insecurity, but these effects vary based on specific professional and organizational environments. Understanding these novel relationships is essential for developing effective strategies to manage job insecurity and improve employee well-being.

Job insecurity introduces a unique perspective to this study by examining its moderating influence on the relationship between role stressors, such as role ambiguity, role conflict, and role overload, and job stress. While previous research has explored job insecurity across various contexts, such as restructuring organizations and diverse industries, its novel impact remains underexplored in highly competitive academic environments. This study goes beyond the existing literature by investigating how job insecurity shapes the

combined effects of role stressors on job stress, offering a more comprehensive understanding of the challenges faced by academic staff in uncertain professional landscapes. By addressing this gap, the study provides fresh insights into workplace stress dynamics and highlights job insecurity's critical role in shaping organizational and individual outcomes.

2.5 Organizational Commitments

Organizational commitment is generally understood as the individual's relationship with their employer. Individuals showing high commitment often exhibit a strong inclination to stay with a particular employer, demonstrate a readiness to put in significant effort for the organization, and align with the organization's values and objectives (Bilderback, 2024; Z. Li et al., 2024; Mokogwu et al., 2024). This concept, especially in the form of affective commitment, transcends mere passive loyalty. It embodies a proactive engagement where individuals contribute actively to the organization's success and growth (Islam et al., 2024; Joel & Oguanobi, 2024).

Organizational commitment has no universal definition from a global perspective. Different researchers have provided different definitions of organizational commitment. Several scholars suggest that organizational commitment indicates the workforce's loyalty and positive sentiments towards their employer, their willingness to work hard for the company's benefit, the alignment of their goals and values with those of the company, and their desire to maintain their association with the organization. Morrisette and Kisamore (2020) characterized organizational commitment as an attitude reflecting an individual's perspective toward their employer. Similarly, Wagner III and Hollenbeck (2020) described it as an employee's sense of identification with their employer, encompassing their

dedication to working hard for the company and their intention to remain with it over an extended period.

Several scholars perceive organizational commitment as a pivotal connection between employees and their organizations. This concept has been interpreted by Xueyun et al. (2024) as a psychological bond that ties employees to their workplace, consequently reducing turnover rates. This idea suggests that organizational commitment involves employees' emotional engagement with their organization, which deters them from departing. Mwakyusa and Mcharo (2024) described this commitment as an employee's emotional involvement, identification, and connection with their organization. Fundamentally, evaluating organizational commitment involves analyzing the alignment between an individual's values and those upheld by the organization.

Organizational commitment refers to the extent to which employees align with and dedicate themselves to the goals and objectives of their organization. Scholars have interpreted this concept from various perspectives. For instance, Bhat et al. (2024) defined it as an employee's acknowledgement and support of organizational objectives and willingness to exert effort. Similarly, Abdou et al. (2024) viewed it as an individual's tendency to uphold and promote the organization's goals. Amos (2024) expanded on this idea, describing it as a firm belief in and adherence to the organization's principles, a readiness to contribute, and a desire to remain a member. Hessari et al. (2024) emphasized that employees who positively perceive their organization are more likely to embrace its objectives and dedicate effort toward its success. Organizational commitment reflects the extent to which employees align with their organization's goals and demonstrate dedication to contributing to its success.

Sun et al. (2023) characterized organizational commitment as a psychological state reflecting an employee's bond with their employer, influencing their decision to continue their involvement and dedication to stay where their personal goals align with those of the organization, thereby contributing to its welfare. Similarly, Tanveer (2023) defined it as an employee's identification with and dedication to a particular organization and desire to continue contributing to it.

In this thesis, organizational commitment is treated as an important work attitude outcome associated with job stress. Because contract-based lecturers often face unstable employment conditions, commitment may not be a single, uniform concept. Therefore, the three-component model (affective, normative, and continuance) is used because it can capture emotional attachment, perceived obligation, and perceived cost-based staying. This is important for interpreting commitment among contract-based lecturers, who may remain due to limited alternatives (continuance), institutional norms (normative), or emotional attachment (affective).

2.5.1 Classification of Organizational Commitment

Scholars have presented various frameworks to understand its nature in scholarly discussions on organizational commitment. Syarifin and Atmaja (2023) conceptualized it through three dimensions: value commitment, which entails a deep alignment with the organization's goals and values; effort commitment, reflecting a dedication to contribute significantly to the organization; and retention commitment, indicating a solid resolve to maintain affiliation with the organization. Furthering this discourse, Alomran et al. (2024) proposed a different triad of commitment types: affective commitment, characterized by

emotional bonds and a sense of belonging to the organization; continuance commitment, based on the perceived disadvantages of leaving the organization; and normative commitment, which is driven by a felt obligation to remain with the organization. This delineation of organizational commitment into distinct categories, such as value, effort, and retention commitment, is a recurring theme in the literature.

In examining organizational commitment within the context of contract-based academic employment, this study adopts the three-component model developed by Allen and Meyer (1990), namely affective, continuance, and normative commitment, as the guiding framework. This model is widely accepted in organizational behavior literature for its comprehensive coverage of emotional, calculative, and moral commitment dimensions. The decision to adopt this model is reinforced by its recent empirical support from studies such as Alomran et al. (2024) and Amos (2024), which confirm its applicability in educational and service sector contexts. While alternative models such as the value–effort–retention framework (Syarifin and Atmaja, 2023; Porter et al., 1974) provide valuable perspectives, Allen and Meyer’s typology is preferred here due to its operational clarity, psychometric validation, and relevance to the moderating and intermediating constructs explored in this study.

Table 2.5: Classifying Commitment in Organizations

Variable	Sources	Classification
Organizational commitment	Porter et al. (1974)	Value commitment, effort commitment, retention commitment
	Allen and Meyer (1990)	Affective commitment, continuance commitment, normative commitment
	Syarifin and Atmaja (2023)	Value commitment, effort commitment, retention commitment
	Alomran et al. (2024)	Affective commitment, continuance commitment, normative commitment
	Hessari et al. (2024)	Perceived organizational alignment and effort commitment
	Sun et al. (2023)	Psychological bond reflecting emotional engagement and alignment with organizational goals
	Bhat et al. (2024)	Acknowledgement and support of organizational objectives; willingness to exert effort
	Mwakyusa and Mcharo (2024)	Emotional involvement, identification, and connection with the organization
	Amos (2024)	Belief in and adherence to organizational principles, desire to remain affiliated.

2.5.2 The Relationship Between Job Stress and Organizational Commitment

Job stress is a universal occurrence across various professions, and experiencing stress at work is not uncommon (Saadeh & Suifan, 2020). Research by Probst et al. (2020) examined the influence of job stress on the intention to leave a job, considering the intermediating effects of job satisfaction and emotional commitment. They discovered a direct and inverse correlation between job stress and employees' emotional commitment.

Most of the research results indicate a significant negative correlation between job stress and three dimensions of organizational commitment: affective, normative, and continuance commitment. Dwiyanti et al. (2022) revealed a notable negative correlation between occupational stress and the level of commitment to an organization, encompassing affective, normative, and continuance commitment aspects. Similarly, Fredolin et al. (2024), focusing on the banking sector, confirmed a detrimental and significant link between job-related stress and organizational commitment, highlighting stress as a critical factor in diminishing employees' allegiance to their organizations. Furthermore, Saadeh and Suifan (2020) investigation into hospitals in Amman, Jordan, demonstrated that job stress adversely impacts perceived organizational support and commitment within these institutions. The above findings are consistent with those of Long et al. (2024), Song et al. (2024), Long et al. (2024), and Zhang et al. (2024).

Xie et al. (2021) revealed that job stress mildly influenced continuance and normative commitment, but it had no discernible impact on affective commitment. Similarly, Jin et al. (2024) examined job stress on the various facets of commitment (affective, continuance, and normative) among healthcare workers in South Africa's Eastern Cape Province. They observed that job stress adversely affected overall organizational commitment. Their study further highlighted that among the three aspects of organizational commitment, only those with a high level of normative commitment were not adversely influenced by job stress. On the other hand, individuals with elevated levels of affective and continuance commitment were found to be unable to cope with increasing job stress, thereby succumbing to its negative effects. These observations align with the (Cicei, 2012) study on the interplay between occupational stress and organizational commitment in Romanian public sector entities.

Table 2.6 summarizes studies showing that job stress generally has a negative impact on organizational commitment, reducing employees' emotional attachment, loyalty, and intention to stay. Some studies also link job stress to decreased job performance, though this relationship can vary based on factors such as job experience and the type of commitment. Key findings include strong negative correlations between job stress and organizational commitment across different professions and settings, including healthcare, education, and banking. This research emphasizes the critical need for effective stress management strategies and supportive organizational practices to enhance employee well-being, maintain high levels of organizational commitment, and improve overall performance and organizational outcomes.

Organizations that wish to maintain a committed and engaged workforce must prioritize strategies to reduce job stress. Such strategies may include providing adequate resources and support to employees, implementing stress management programs, promoting a healthy work-life balance, and fostering a positive and supportive work environment. Furthermore, the findings suggest that addressing job stress benefits individual employees and has broader implications for organizational performance. Employees who experience lower stress levels are more likely to exhibit higher levels of commitment, which can lead to improved performance, greater job satisfaction, and increased overall organizational success.

Table 2.6: Relationship Between Job Stress and Organizational Commitment

Author(s)	Variables Examined	Sample Characteristics	Findings
Hunter and Thatcher (2007)	Stress, job experience, commitment, and job performance	Employees responsible for sales in National Bank branches in the five states of America	(i) There is an inverse relationship between stress and commitment. (ii) Stress is directly linked to performance, and employees with higher levels of affective commitment and greater job experience are more adept at converting their experienced stress into improved sales performance.
Cicei (2012)	Occupational stress, organizational commitment	Employees from five public organizations in Romania	Strong negative associations have been observed between work-related stress and emotional commitment and commitment to staying with the job.
Kafashpoor et al. (2014)	Job stress, turnover intention, job satisfaction, affective commitment	Nurses in Mashhad's public hospitals	A direct and adverse correlation was observed between job stress and employees' emotional commitment.
Nart and Batur (2014)	Job stress, organizational commitment, and job performance	Elementary school educators in the South Marmara Region of Turkey	Job-related stress exhibited minimal influence on continuance and normative commitment, with no discernible impact on affective commitment. Additionally, no correlation was observed between job stress and the job performance of Turkish primary lecturers.
Özgür et al. (2014)	Work-family conflict, job stress, organizational commitment, job performance	Turkish primary lecturers	Work-family conflict has a significant adverse impact on job stress and a somewhat lesser impact on organizational commitment. Job stress is associated with a detrimental effect on organizational commitment.
Alipour and Kamaee Monfared (2015)	Job stress, organizational commitment	Nurses working in the hospitals of Behbahan in Iran	A notable negative correlation exists between workplace stress and an individual's organizational commitment. Workplace stress is inversely related to affective, normative, and continuance commitment.
Bhatti et al. (2016)	Job stress, organizational commitment	Employees of AL-Falha Bank, Allied Bank, Faysal Bank	There is a clear and substantial correlation between workplace stress and organizational dedication. Stress significantly diminishes an employee's allegiance to the company.

Table 2.6: continued

Author(s)	Variables Examined	Sample Characteristics	Findings
Ruzungunde et al. (2016)	Job stress, components of organizational commitment	Healthcare personnel in the Eastern Cape Province of South Africa	Work-related stress adversely affects an individual's commitment to their organization. Among the three facets of organizational commitment, only individuals with a solid normative commitment are resilient to the detrimental impact of job stress. Affective and continuance commitment declines with increased job stress.
Saadeh and Suifan (2020)	Perceived organizational support, organizational commitment, job stress	Employees in six hospitals in Amman, Jordan	High levels of job-related stress notably adversely impact an individual's commitment to the organization.

2.6 Gaps in Literature

In reviewing the extant literature on job stress and organizational commitment, most empirical attention has been directed toward sectors such as manufacturing, banking, healthcare, and education, particularly school lecturers (Aruldoss et al., 2021; Bagdžiūnienė et al., 2022; Roy et al., 2023; Yasin et al., 2023). Some studies have also considered higher education and university lecturers (Ehido et al., 2020; Sutoro, 2021; Yusuf, 2021). Although these studies provide useful evidence, the literature still has several gaps that limit a full understanding of how stress develops and shapes commitment in higher education, especially under contract-based employment.

First, a context gap remains. A large portion of the evidence is drawn from Western settings or from sectors that differ from universities in terms of work structure and employment arrangements. Even within the education sector, previous studies focus on school environments rather than the university context, where lecturers are expected to manage teaching, research output, performance evaluation, and service responsibilities simultaneously (Prasetyo et al., 2022; Rahyuda et al., 2026). More importantly, contract-based lecturers constitute a subgroup with distinct employment conditions, in which job continuity depends on contract renewal and institutional evaluation processes. However, the specific experience of contract-based university lecturers, especially within China's higher education system, is still under-represented in empirical research. This limits the ability to generalize existing findings to the Chinese academic context, where institutional systems, employment norms, and expectations of loyalty may differ.

Second, a theoretical and explanatory gap is evident. Previous studies describe associations among role stressors, job stress, and organisational commitment but provide

limited explanation of the underlying processes that link these variables in academic work (Lambert et al., 2005b; Pooja et al., 2016). In particular, it remains unclear “how” role ambiguity, role conflict, and role overload translate into job stress in environments with high performance demands and unstable employment. Relatedly, the three dimensions of organizational commitment (affective, normative, and continuance) may not respond to stress in the same way, and previous studies have reported mixed patterns across dimensions. This suggests that the stress–commitment relationship may be more complex than a single, uniform effect, and further evidence is needed in sector-specific settings where contract-based employment may shape the development of commitment.

Third, an evidence gap exists due to inconsistent and incomplete findings across settings (Meyer et al., 2002). While previous studies report that role stressors significantly predict job stress, the strength and relative importance of ambiguity, conflict, and overload vary across occupations, organizational cultures, and employment conditions (Jackson & Schuler, 1985; Örtqvist & Wincent, 2006). Similarly, prior studies link job stress to organizational commitment, but some report broad negative effects while others show weaker or dimension-specific effects (e.g., stronger effects for affective commitment than continuance commitment). These inconsistencies indicate that context and employment conditions may shape the relationships, yet many studies do not test these conditions directly.

Fourth, a moderation gap persists, particularly regarding job insecurity. Prior research, such as Aruldoss et al. (2021), Dodanwala et al. (2023), and Van Doninck et al. (2023), has mainly examined direct relationships among role stressors, job stress, and organizational commitment, without incorporating moderating variables such as job insecurity. For example, Van Doninck et al. (2023) found that role ambiguity and role

overload significantly influenced job stress, but did not examine whether job insecurity changes the strength of these effects. Similarly, Dodanwala et al. (2023) highlighted the relationship between job stress and organizational commitment but did not explore how broader employment-related factors may condition this relationship. This omission limits the scope of prior studies and reduces their usefulness in contexts where job insecurity is common, such as contract-based employment in universities. In academic environments where contracts are time-limited and renewal outcomes are uncertain, job insecurity may serve as a boundary condition, intensifying stress reactions in ambiguous, conflicting, or overloaded roles. However, this possibility has not been adequately examined using an integrated model in the university sector.

Fifth, a model integration and methodological gap can also be identified. Existing studies often examine only part of the overall process, such as role stressors predicting job stress or job stress predicting commitment, without testing an integrated framework that links these variables within a single study and context. In addition, when higher education is examined, contract-based employment conditions are often treated as background information rather than theorized and tested as a factor that shapes the stress process. This results in fragmented evidence and leaves uncertainty about how these constructs operate together for contract-based lecturers.

In the Chinese higher education sector, these gaps are especially important. The academic environment has changed due to rapid expansion, stronger competition, and policy-driven performance expectations, which may increase role pressure and intensify uncertainty for contract-based lecturers. While existing studies (Ehido et al., 2020; Herr et al., 2024) discuss job stress and organizational commitment in general terms, they do not

adequately explain how temporary contracts and employment-specific conditions intensify job insecurity and shape stress outcomes. Moreover, studies have not comprehensively examined how role stressors (role ambiguity, role conflict, and role overload) interact with job insecurity, a moderating factor that influences job stress and, through stress, shapes organizational commitment outcomes. These limitations suggest that the moderating role of job insecurity in amplifying or attenuating the effects of role stressors on job stress remains insufficiently addressed, especially among Chinese contract-based lecturers.

This study addresses these gaps by developing and testing a cohesive framework that integrates role stressors, job stress, and the three dimensions of organizational commitment, while incorporating job insecurity as a moderator of the relationship between role stressors and job stress. The novelty of the study lies in examining these interrelated variables within a single model and a specific but underexplored context—Chinese contract-based university lecturers. By doing so, the study provides empirical evidence that helps clarify the stress process in contract-based academic employment and offers findings that can inform management practices and policy decisions in higher education settings.

2.7 Underlying Theories

The present study draws on two complementary theories to explain why role stressors generate job stress and why stress experiences shape commitment outcomes among Chinese contract-based university lecturers. Role Theory explains how role ambiguity, role conflict, and role overload create stress by creating unclear, incompatible, or excessive expectations. Social Exchange Theory (SET) explains how employment conditions and perceived

treatment by the institution influence employees' willingness to remain committed, especially when they perceive uncertainty about the continuity of their jobs.

To reduce confusion about construct positioning, this study applies the theories in a clear sequence. First, Role Theory explains the process by which role stressors increase job stress. Second, SET explains the exchange and attachment process, in which job stress influences organizational commitment, and job insecurity reflects uncertainty in the employment exchange. In the current framework, job insecurity is positioned as a moderator of the relationship between role stressors and job stress, meaning that the same role stressor may elicit stronger stress responses when lecturers feel their job is insecure. Job stress then affects the three dimensions of organizational commitment (affective, normative, and continuance) through reduced emotional energy, a lower sense of obligation, and a changed cost-benefit evaluation of staying. Table 2.7 summarizes how the constructs connect to the two governing theories.

Table 2.7: Constructs and the Governing Theories

	Role Theory	Social Exchange Theory (SET)
Role Stressors (Role Ambiguity, Role Overload, Role Conflict)	√	
Job Stress	√	
Job Insecurity		√
Organizational Commitment (Affective, Normative, Continuance)		√

2.7.1 Role Theory

Role Theory is a foundational approach for explaining work stress. It proposes that employees experience stress when role expectations are unclear, incompatible, or exceed available capacity and resources (Kahn et al., 1964; Varzaneh et al., 2024). In the role-episode model, stress arises when “role senders” (such as department heads, administrators, students, and research supervisors) communicate expectations to the “focal person” (the lecturer). When these expectations are inconsistent, unclear, or excessive, the lecturer experiences role strain, which is expressed as job stress (Kahn et al., 1964). This approach is widely used in organizational research and is relevant to higher education contexts, where lecturers often operate under multiple, competing demands (Biddle, 1986; Katz, 1980; J. Li et al., 2024).

Role Theory identifies role ambiguity, role overload, and role conflict as major role-based stressors (Ågotnes et al., 2024; Beehr et al., 1976). These stressors are especially meaningful for contract-based lecturers because the role evaluation process often affects contract renewal, promotion opportunities, and future employability. When job continuation depends on meeting multiple performance indicators, role problems become more stressful because the perceived consequences of underperformance are higher.

Role ambiguity occurs when lecturers face unclear expectations regarding teaching, research targets, service requirements, or administrative duties (Mwakyusa & Mcharo, 2024; Rizzo et al., 1970). Ambiguity increases stress because lecturers cannot predict what will be judged as acceptable performance. Under contract-based employment, this uncertainty can become stronger because lecturers may not be sure which outcomes are most important for renewal decisions. When institutional guidance is limited or inconsistent, ambiguity also

reduces the lecturer's sense of control, which is a well-known driver of stress reactions (Pearce, 1981; Piazza et al., 2024).

Role overload occurs when lecturers are given more tasks than can reasonably be completed within time and energy limits (Ivancevich, 1980; Pratiwi, 2019). In universities, overload often comes from heavy teaching schedules, student supervision, administrative tasks, and pressure to publish and secure funding. Overload increases stress because lecturers must sacrifice recovery time and work–life balance to meet demands, which leads to fatigue and emotional exhaustion (Loughran et al., 2001; Szromek & Wolniak, 2020). In contract settings, lecturers may feel compelled to take on extra tasks to demonstrate performance, which can further increase workload and stress.

Role conflict occurs when lecturers face incompatible expectations, such as being expected to achieve strong teaching evaluations while also meeting strict research output targets within the same limited time (Kahn et al., 1964; Xu et al., 2020). Conflict increases stress because meeting one demand makes it harder to meet another. In academic environments, conflict may arise when administrative requests, student needs, and departmental research goals compete directly, leading to tension and dissatisfaction.

Role Theory predicts that these role stressors increase job stress by reducing clarity, predictability, and perceived control while increasing perceived demands. Job stress then influences important work outcomes, including organizational commitment (Glazer & Beehr, 2005; Yuan & Zhang, 2024). For contract-based lecturers, unstable employment conditions can increase the perceived stakes of role performance and make stressors more harmful. When lecturers face ambiguity and conflict, they may feel less supported and less valued,

which reduces motivation and weakens attachment to the institution (Bakker et al., 2007; Maden-Eyiusta, 2021).

In the current study, Role Theory provides the main explanation for how role ambiguity, role overload, and role conflict generate job stress among Chinese contract-based university lecturers. It also supports the logic that job insecurity can intensify this process because uncertainty about job continuity increases the perceived consequences of failing to meet unclear or conflicting role expectations.

2.7.2 Social Exchange Theory

Social Exchange Theory (SET) explains behavior and attitudes in relationships as a process of reciprocal exchange of benefits and obligations (Blau, 1964; Xiao & Hew, 2024). In organizational settings, employees interpret workplace treatment, such as fairness, support, respect, and stability, as indicators of the quality of the exchange relationship. When employees perceive that the organization provides support and maintains fair treatment, they are more likely to reciprocate with positive attitudes and behaviors, including stronger organizational commitment (Cropanzano & Mitchell, 2005; Ollila & Yström, 2024). Over time, repeated positive exchanges build trust-based social exchange, which supports sustained attachment to the organization (Cook & Emerson, 1978; Haverila et al., 2022; Lambe et al., 2001).

SET is relevant to the present study for two main reasons. First, it helps explain why job stress can reduce organizational commitment. When lecturers experience high stress, they may perceive that the job “costs” exceed the benefits. Stress reduces psychological resources and can weaken positive feelings toward the institution. Under SET, this imbalance

reduces willingness to reciprocate through loyalty and long-term attachment. Second, SET explains why job insecurity is important in the exchange relationship. Job insecurity signals uncertainty in the employment exchange, and employees may interpret it as a sign that the organization is not providing stable support or long-term investment.

In the context of contract-based lecturers, job insecurity can be experienced as uncertainty about contract renewal, unclear career pathways, and unstable income prospects. When lecturers perceive a high risk of job loss, they may feel that the organization is failing to fulfil its implied obligations of stability and fairness. This perception can lead to negative emotional responses and weaken the desire to invest extra effort in the organization. Therefore, job insecurity can shape attitudes by changing how lecturers evaluate their relationship with the institution.

SET also helps interpret the three dimensions of organizational commitment. Affective commitment may decline when stress and insecurity reduce positive emotional attachment. Normative commitment may weaken when employees feel that the institution is not meeting expected obligations. Continuance commitment may be influenced by perceived costs of leaving, which can increase in some situations, but it can also be unstable if external opportunities are available. Although the present study focuses on the direct effect of job stress on commitment dimensions, SET provides a consistent explanation for why stress experiences are linked to lower willingness to remain attached and loyal, especially under insecure employment conditions.

In summary, SET supports the current framework by explaining how perceived institutional treatment and job stability influence commitment outcomes and why job

insecurity is a meaningful employment-related condition within the stress–commitment process.

2.8 Conceptual Framework

By integrating Role Theory and Social Exchange Theory, this study develops a clear framework to explain workplace stress and commitment outcomes among Chinese contract-based university lecturers. The framework is structured in two linked stages.

Stage 1 (Stress formation: Role Theory). Role ambiguity, role conflict, and role overload are positioned as the main role stressors. These stressors increase job stress by creating uncertainty, conflicting expectations, and excessive demands. Importantly, job insecurity is positioned as a moderator between role stressors and job stress. This means that when lecturers feel insecure about contract renewal or job continuity, the stress effects of ambiguity, conflict, and overload are expected to become stronger. In contract-based employment, perceived job insecurity can heighten the perceived consequences of role failure, thereby intensifying stress responses to unclear or conflicting role demands.

Stage 2 (Exchange and attachment: SET). Job stress is considered a predictor of organizational commitment. When lecturers experience higher job stress, they may reduce their emotional attachment to the institution, feel less obligated to stay, and reassess the value of remaining in the organization. Therefore, job stress is expected to influence affective, normative, and continuance commitment.

In the framework, job stress is treated as an outcome of role stressors and as a predictor of commitment, thereby allowing an indirect pathway from role stressors to commitment via job stress. However, the framework is presented as a sequential model that

explains how stress develops and how stress relates to commitment. Any indirect effects can be interpreted as part of the stress mechanism, consistent with the theoretical logic.

Figure 2.1 presents the study framework. Role stressors are the independent variables; job stress is the main dependent variable in Stage 1 and a predictor of commitment in Stage 2; and job insecurity moderates the relationship between role stressors and job stress. Prior studies have reported relationships among these constructs, including role stressors and job stress (Lambert et al., 2005a; Rangrez et al., 2022) and job stress and organizational commitment (Hunter & Thatcher, 2007; Ruzungunde et al., 2016). Based on this theoretical logic and empirical support, hypotheses are developed in the next section.

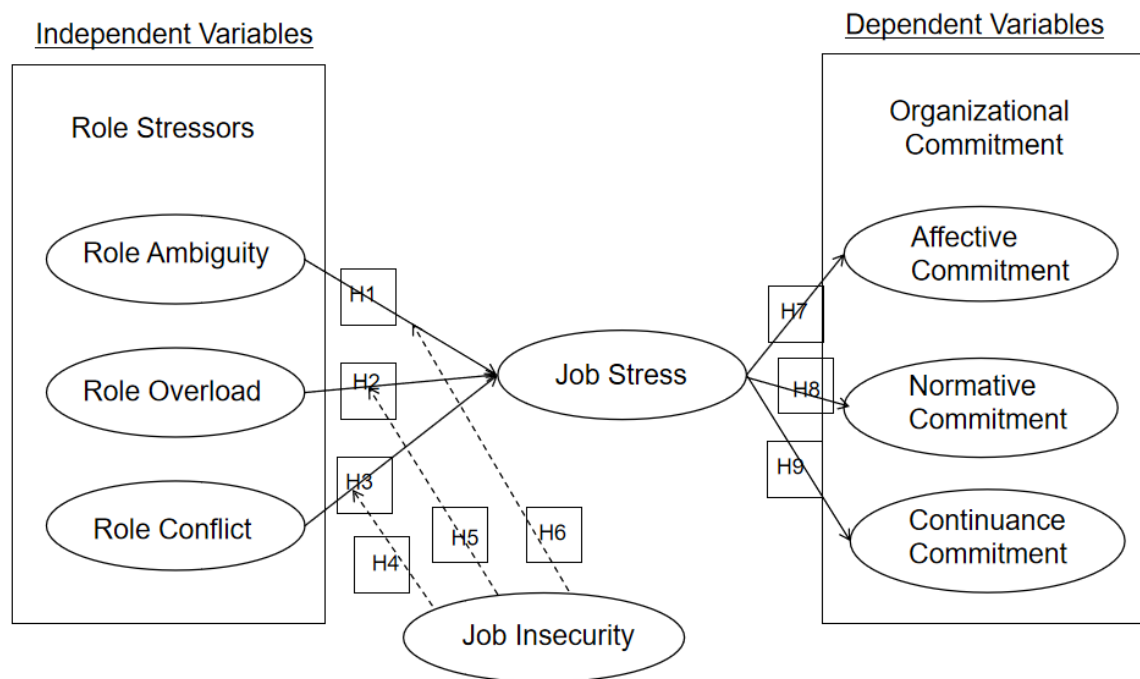


Figure 2.1: Research Framework

2.9 Hypothesis Development

This section develops the hypotheses based on the proposed research framework and the underpinning theories discussed in Chapter 2. In this study, role stressors, namely role ambiguity, role overload, and role conflict, are treated as the independent variables. Job stress is positioned as the main outcome variable in the first stage of the model because Role Theory explains that unclear, excessive, and conflicting role expectations increase psychological strain and stress reactions among employees (Beehr et al., 1976; Kahn et al., 1964). In addition, job insecurity is positioned as a moderator that may strengthen or weaken the relationships between role stressors and job stress. This moderation logic is supported by Social Exchange Theory, which suggests that when employees perceive instability and uncertainty in their employment relationship, they may evaluate their work situation as more threatening and respond more strongly to stressors (Blau, 1964; Cropanzano & Mitchell, 2005).

In the second stage of the model, job stress is expected to influence organizational commitment, which is examined through its three dimensions: affective commitment, normative commitment, and continuance commitment (Allen & Meyer, 1990). Contract-based university lecturers may experience unique pressures because performance expectations, contract renewal concerns, and limited long-term security can intensify stress experiences and shape commitment-related decisions. Based on this model structure, hypotheses are developed in three parts: (i) role stressors and job stress (H1–H3), (ii) moderating role of job insecurity on role stressors and job stress (H4–H6), and (iii) job stress to organizational commitment dimensions (H7–H9).

2.9.1 Role Stressors and Job Stress

Role stressors, including role ambiguity, role overload, and role conflict, are widely recognized as major sources of job stress in organizational settings. These stressors develop when employees face unclear job expectations, excessive work demands, or incompatible responsibilities. Such conditions create psychological strain because employees must invest additional effort to interpret what is required, decide which tasks should be prioritized, and manage competing demands within limited time and resources. As a result, role stressors can increase emotional exhaustion, anxiety, frustration, and feelings of reduced control over work outcomes, all of which are common features of job stress.

This relationship is especially relevant in higher education contexts, where academic staff often face multiple role expectations that involve teaching, research output, student supervision, administrative duties, and service tasks. In the case of contract-based university lecturers, these pressures may be more sensitive because workload distribution, evaluation criteria, and contract renewal expectations can heighten uncertainty and performance pressure. When role expectations are not clearly communicated, when duties exceed available capacity, or when demands are inconsistent across supervisors and institutional units, contract lecturers may experience stronger stress reactions. Therefore, examining how each role stressor contributes to job stress provides the basis for developing the following hypotheses.

2.9.1.1 Role Ambiguity and Job Stress

Job stress can be understood as a psychological and physical response that occurs when individuals perceive that work demands exceed their ability, time, or resources to cope

effectively (Vickovic & Morrow, 2020). Within this view, role stressors are important drivers of job stress because they shape how clearly employees understand what is expected and how confidently they can perform their responsibilities. Among the main role stressors, role ambiguity has been repeatedly highlighted as a strong contributor to job stress because it reduces clarity, predictability, and perceived control at work.

Role ambiguity refers to a situation where employees do not have sufficient, clear, or consistent information about their job duties, performance standards, reporting lines, or decision authority (Abdel-Halim, 1982; Wang et al., 2020). When expectations are unclear, employees may struggle to decide which tasks are most important, how to allocate time, and what level of quality is required. This lack of clarity increases cognitive load because employees must spend extra effort interpreting instructions, seeking guidance, and correcting mistakes after feedback. As a result, uncertainty can develop about whether work is being done correctly, whether evaluation criteria will change, or whether supervisors hold different standards. Over time, these uncertainties can generate worry, frustration, and emotional fatigue, which are core components of job stress (Lee et al., 2024).

Role ambiguity is especially relevant for contract-based university lecturers. Contract lecturers often manage teaching, student supervision, grading, and administrative tasks, while also facing performance expectations that may not be communicated with the same stability and transparency as for permanent staff (Callea et al., 2016). In some cases, contract lecturers may receive vague targets for research output, unclear expectations about committee work, or inconsistent guidance from different departments (Alblihed & Alzghaibi, 2022; Van der Heijden et al., 2018). When lecturers are not sure how their performance will be assessed, or which tasks carry more weight for contract renewal decisions, uncertainty

becomes more threatening and stressful. In addition, limited access to institutional resources and support can make it harder to seek clarification, which further strengthens the stress experience (Lau et al., 2002). Therefore, the lack of role clarity is expected to increase job stress among contract-based lecturers. Therefore, the following hypothesis is proposed:

H1: Role ambiguity is significantly and positively related to job stress.

2.9.1.2 Role Overload and Job Stress

Role overload occurs when employees are assigned more tasks and responsibilities than they can reasonably complete within available time, energy, and resources (Piazza et al., 2024). This situation creates stress because employees perceive a continuous gap between what is required and what can realistically be delivered. In practical terms, role overload increases time pressure, reduces recovery opportunities, and forces individuals to work faster, multitask more frequently, and make quicker decisions, often at the cost of quality. Over time, these conditions produce emotional exhaustion and a sense of being overwhelmed, which are common reactions associated with job stress.

Role overload is not only about the number of tasks, but also about the intensity and pace of work, the complexity of assignments, and the degree of control employees have over scheduling. When workload remains high for a long period, employees may feel unable to meet deadlines and performance expectations, which can increase worry, irritability, and fatigue. Role overload can also affect work and personal life because employees may need to extend working hours, reduce family time, and delay rest to keep up with job requirements (Sverke et al., 2019). This imbalance can further increase stress and reduce coping capacity, making employees more vulnerable to burnout and emotional strain (Karatepe, 2013; Tang

& Vandenberghe, 2021). Prolonged overload has been linked to negative outcomes such as physical health problems, emotional exhaustion, reduced productivity, and lower satisfaction with work (Alblihed & Alzghaibi, 2022; Van der Heijden et al., 2018).

Role overload is particularly relevant in higher education, where lecturers often carry heavy teaching responsibilities, student advising, grading duties, and administrative tasks while also being expected to contribute to research output (Kmieciak, 2023). For contract-based lecturers, workload pressure may be stronger because staffing arrangements and task distribution can change frequently, and contract renewal concerns may encourage acceptance of additional duties. In some cases, contract lecturers may take on more teaching hours, cover multiple courses, or handle large classes with limited assistance (Odengo, 2023). When lecturers feel that the workload is excessive and cannot be managed without sacrificing quality or personal well-being, job stress is likely to increase. Therefore, role overload is expected to have a positive relationship with job stress among contract-based university lecturers. Therefore, the following hypothesis is proposed:

H2: Role overload is significantly and positively related to job stress.

2.9.1.3 Role Conflict and Job Stress

Role conflict arises when employees face incompatible expectations, such that meeting one demand makes it difficult or impossible to meet another demand at the same time (Huang et al., 2024). This situation creates stress because employees experience tension between competing requirements, yet still remain accountable for performance outcomes. Role conflict often leads to frustration because employees may feel they are being evaluated based on standards that cannot be achieved simultaneously. In addition, the uncertainty about

which demand should be prioritized can reduce perceived control and increase psychological strain.

Role conflict can occur in several forms. It may emerge when employees receive inconsistent instructions from different supervisors, when organizational policies conflict with practical job realities, or when employees must perform tasks that clash with their professional values. Role conflict can also develop when job descriptions are broad but expectations are strict, creating pressure to meet multiple priorities without clear guidance (Zeng et al., 2024). These conflicting pressures can increase mental fatigue because employees must continuously adjust decisions, switch between tasks, and manage interpersonal tensions with colleagues or supervisors. Over time, the strain from role conflict can reduce job satisfaction, damage workplace relationships, and contribute to emotional exhaustion (Abdou et al., 2024; Gilboa et al., 2008). The stress experience may also spill over into personal life, affecting overall well-being and increasing the risk of burnout (Ilyas et al., 2023; Peterson, 1995).

Role conflict is especially relevant for university lecturers who are expected to perform well in multiple areas (Ahmad, 2023). Lecturers may be expected to deliver high-quality teaching, publish research, participate in community service, and complete administrative tasks, often within limited time. For contract-based lecturers, the conflict may become stronger when lecturers must meet heavy teaching requirements while also being judged using research-based performance indicators or when different university units provide competing expectations (Maden-Eyiusta, 2021). For example, departmental teaching targets may conflict with institutional research expectations, or student service demands may conflict with strict deadlines for administrative reporting. When these

competing demands are persistent and unresolved, contract lecturers may experience stronger job stress because they perceive that meeting one expectation increases the risk of failing another. Therefore, role conflict is expected to increase job stress among contract-based university lecturers. Therefore, the following hypothesis is proposed:

H3: Role conflict is significantly and positively related to job stress.

2.9.2 The Moderating Effect of Job Insecurity

Job insecurity refers to an employee's perception that their job may not be stable or may be at risk in the future (Sverke et al., 2002). In many organizations, employees may face uncertainty because of contract renewal decisions, performance-based employment systems, restructuring, or changes in staffing policies. In higher education, contract-based lecturers can be more exposed to such uncertainty because employment continuity may depend on short-term renewal, evaluation outcomes, or changing teaching needs. This makes job insecurity an important condition that can shape how employees react to workplace demands.

In this study, job insecurity is proposed as a moderator in the relationships between role stressors and job stress. The logic is that the same role stressor may create different levels of stress depending on whether the employee feels secure or insecure about employment. When job insecurity is high, employees may interpret work problems as more threatening because they believe mistakes, delays, or performance shortfalls can increase the risk of contract non-renewal. This increases worry, vigilance, and emotional strain. When job insecurity is low, employees may still find role stressors difficult, but they may feel more confident that temporary problems will not harm their job continuity, which reduces the stress intensity. Therefore, job insecurity is expected to strengthen the stress reaction

produced by role ambiguity, role overload, and role conflict. This moderating logic is consistent with prior research that treats job insecurity as an important condition that shapes employee reactions and well-being outcomes (Callea et al., 2016; Maryani & Gazali, 2024).

2.9.2.1 Moderation on the Relationship Between Role Ambiguity and Job Stress

Role ambiguity creates uncertainty about what tasks are required, what standards are used for evaluation, and what priorities should be followed (Abdel-Halim, 1982; Wang et al., 2020). When job insecurity is high, this uncertainty becomes more stressful because employees may fear that unclear expectations will lead to negative evaluation outcomes (Sverke et al., 2019). In other words, role ambiguity becomes more threatening because employees do not know how to protect their performance reputation. They may invest additional effort to seek clarification, double-check tasks, and avoid mistakes, which increases cognitive load and emotional fatigue. In addition, unclear expectations can create fear that supervisors may interpret performance in a negative way during renewal or appraisal decisions. This can intensify anxiety and job stress (Shoss, 2017; Zhao et al., 2024). When job insecurity is low, role ambiguity may still be uncomfortable, but the stress effect may be weaker because employees are less worried about job continuity. Based on this reasoning, the following hypothesis is proposed:

H4: Job insecurity moderates the relationship between role ambiguity and job stress.

2.9.2.2 Moderation on the Relationship Between Role Overload and Job Stress

Role overload occurs when employees perceive that the volume or intensity of work exceeds what can be managed with available time and resources (Beehr et al., 1976; Tang &

Vandenberghe, 2021). Role overload usually increases stress through time pressure, exhaustion, and reduced recovery opportunities. When job insecurity is high, overload can create even stronger stress reactions because employees may feel forced to accept and complete excessive work to demonstrate value and avoid contract non-renewal (Marx-Fleck et al., 2021). This can reduce boundary control and increase the feeling of being trapped in continuous work demands. Contract-based lecturers may also feel pressure to take extra teaching tasks, manage large classes, or meet additional reporting requirements because they believe refusal may harm their future employment prospects (Kebelo, 2012). Under high job insecurity, employees may become more sensitive to overload because workload is interpreted not only as heavy work, but also as a test of performance and employability within the institution (Costin et al., 2023; Sverke et al., 2002). When job insecurity is low, employees may still experience strain from overload, but they may feel more able to negotiate workload, request support, or delay non-urgent tasks, which can reduce stress intensity. Therefore, the following hypothesis is proposed:

H5: Job insecurity moderates the relationship between role overload and job stress.

2.9.2.3 Moderation on the Relationship Between Role Conflict and Job Stress

Role conflict develops when employees face incompatible demands, such that meeting one expectation makes it difficult to meet another (Qiang, 2024; Song et al., 2023). Role conflict increases stress because employees experience pressure, frustration, and uncertainty about which demand should be prioritized (House & Rizzo, 1972). When job insecurity is high, role conflict can produce stronger stress reactions because employees may believe that failure in any one area can harm their job continuity. In other words, conflicting

demands become more threatening because employees feel there is less tolerance for imperfection, and they may worry that supervisors will interpret trade-offs as poor performance (Shukla et al., 2024). This can increase emotional strain, vigilance, and fear-driven effort, which strengthens job stress. In academic settings, contract lecturers may face conflict between teaching quality expectations, research output targets, and service or administrative duties, while also worrying about evaluation and renewal (Kebelo, 2012). Under such conditions, job insecurity can intensify the negative effects of role conflict by increasing the perceived consequences of not meeting competing expectations (Safaria, 2014; Safaria et al., 2011). When job insecurity is low, lecturers may still experience tension from role conflict, but they may feel more able to manage trade-offs without severe fear of job loss. Therefore, the following hypothesis is proposed:

H6: Job insecurity moderates the relationship between role conflict and job stress.

2.9.3 Job Stress and Organizational Commitment

Organizational commitment, encompassing affective, normative, and continuance commitment, reflects how employees align with and dedicate themselves to their organization. Job stress, arising from workplace demands and challenges, directly influences these commitment dimensions. High levels of job stress often erode employees' emotional attachment, sense of obligation, and perceived cost-benefit balance of remaining with the organization. This section explores the direct effects of job stress on the three components of organizational commitment, presenting hypotheses to examine these relationships.

2.9.3.1 Job Stress and Affective Commitment

Affective commitment, an employee's emotional attachment and loyalty to their organization, is a crucial component of organizational commitment. Employees with high affective commitment stay with an organization because they want to, not because they feel they need to (Allen & Meyer, 1990; Yue & Huang, 2024). The relationship between job stress and affective commitment is complex. While some studies suggest that moderate levels of job stress can enhance affective commitment by motivating employees to overcome challenges, excessive job stress often leads to negative outcomes. High levels of job stress can cause burnout, emotional exhaustion, and a sense of disconnection from the organization, reducing affective commitment (Bhatti et al., 2016; Jamal, 2011; Jiang et al., 2020). Employees experiencing high job stress are more likely to feel overwhelmed and unsupported, leading to decreased emotional attachment to their organization. This reduction in affective commitment can result in higher turnover intentions and lower organizational loyalty (Bhatti et al., 2016; Jamal, 2011; Jiang et al., 2020). Understanding this relationship is essential for organizations that foster a supportive work environment that enhances employee commitment and reduces stress-related issues. Therefore, it is hypothesized as follows:

H7: Job stress is significantly and positively related to affective commitment.

2.9.3.2 Job Stress and Normative Commitment

Normative commitment, an employee's perceived obligation to remain with their organization, is crucial to organizational commitment. Employees with high normative commitment stay with an organization because they feel it is the right thing to do, often due

to a sense of duty or moral obligation (Meyer et al., 1991; Wongsuwan et al., 2023). The relationship between job stress and normative commitment is multifaceted. While some studies suggest that moderate levels of job stress can strengthen normative commitment by reinforcing employees' sense of duty to their organization, excessive job stress is more likely to undermine this commitment (Alipour & Kamaee Monfared, 2015; Bhatti et al., 2016; Ul Hassan et al., 2023). High levels of job stress can cause burnout, emotional exhaustion, and a sense of disconnection from the organization, reducing normative commitment. Employees experiencing high job stress are more likely to feel overwhelmed and unsupported, leading to decreased feelings of obligation to their organization. This reduction in normative commitment can result in higher turnover intentions and lower organizational loyalty (Kafashpoor et al., 2014; Ruzungunde et al., 2016; Sallai et al., 2023). Understanding this relationship is essential for organizations that foster a supportive work environment that enhances employee commitment and reduces stress-related issues. Therefore, it is hypothesized as follows:

H8: Job stress is significantly and positively related to normative commitment.

2.9.3.3 Job Stress and Continuance Commitment

Continuance commitment refers to an employee's perceived cost of leaving the organization. Employees with high continuance commitment stay because they believe they have to, due to the perceived costs of leaving (Meyer et al., 1991; Morrissette & Kisamore, 2020). The relationship between job stress and continuance commitment is complex. Some studies suggest job stress can lead to higher continuance commitment, as employees may feel the uncertainty and challenges of leaving outweigh the stress they currently face (Allen

et al., 2010; Kloutsiniotis et al., 2022). This is particularly relevant for employees who believe their skills are not easily transferable or have significant investments, such as tenure, benefits, or location-specific advantages (Chang et al., 2015; Salama et al., 2022). However, excessive job stress can also reduce continuance commitment by increasing the desire to leave despite perceived costs. High stress levels can cause burnout, emotional exhaustion, and a sense of entrapment, prompting employees to consider leaving regardless of high costs (Jamal, 2011; Saadeh & Suifan, 2020). Understanding this relationship is essential for organizations seeking to foster a supportive work environment that enhances commitment and reduces stress-related issues. Therefore, it is hypothesized as follows:

H9: Job stress is significantly and positively related to continuance commitment.

2.10 Chapter Summary

This chapter extensively examines fundamental workplace phenomena, including role stressors, job stress, the dynamics of job insecurity, and the nature of organizational commitment. It goes beyond a mere overview to critically analyze the moderating influence of job insecurity on the interplay between role stressors and job stress. This analysis is underpinned by thoroughly exploring relevant theoretical frameworks, pinpointing notable lacunae in existing literature, and providing a robust justification for the theoretical approach adopted herein. Furthermore, the chapter sets the stage for an in-depth discussion of the research methodology, which is systematically detailed in Chapter 3 of this study, thereby laying a solid foundation for the following empirical investigations.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Overview

This chapter outlines the research methods and procedures employed in this study. It begins by describing the research sites and selection criteria, then explains the research design, including the sampling method and sample size. The data collection framework is then introduced, detailing the procedures used at each site. Next, the development of the research questionnaire is discussed, along with the rationale behind the selected questions. A section on the pilot study follows, addressing the preliminary tests conducted to ensure validity and reliability. The chapter also covers the statistical techniques applied, including descriptive statistics, factor analysis, and factor independence analysis, explaining their role in data interpretation. Finally, the chapter concludes with a reflection on the methodological process, highlighting its strengths, limitations, and contributions to the study's credibility.

3.2 Research Sites

Jiangsu Province, a leading higher education region in eastern China, presents a strong setting to explore job stress dynamics and organizational commitment in academic environments. Located along the eastern coast of China, Jiangsu is distinguished by a dense concentration of universities and a large academic workforce, which provides a realistic context for examining how employment arrangements shape lecturers' work experiences. The province's blend of urban and non-core cities offers varied institutional contexts for investigating the interplay between role stressors and job insecurity among contract-based

university lecturers. Jiangsu hosts over 160 higher education institutions, including comprehensive, research-intensive, and vocational universities, making it one of China's most academically dense regions. This diversity supports the study purpose because contract-based employment and performance expectations may differ across institutions and locations, which may influence job stress and commitment.

This study collected data from university contract lecturers across multiple universities in Jiangsu Province. Specifically, six universities were purposefully selected as they are categorized as application-oriented undergraduate institutions, a classification within China's higher education system referring to universities that emphasize practice-based undergraduate education, applied research, and industry collaboration, with strong focus on employability and professional training. This designation differentiates them from comprehensive research universities. These institutions offer complete undergraduate programs but are focused on hands-on, employment-oriented education. This institutional type is relevant to the present study because such universities often apply performance-based evaluation and heavy teaching and service responsibilities, which may increase exposure to role stressors among lecturers.

These six universities were selected based on a combination of purposive and criterion-based sampling. The institutions were chosen to reflect geographical diversity (urban vs. non-core or county-level cities), academic specialization in applied sciences, and documented employment structures involving a substantial population of contract-based lecturers. The site selection was directly linked to the target respondents because each selected university uses contract-based appointments and renewal systems in which teaching load, performance appraisal, and contract duration are formally managed. The selection was

limited to six universities to maintain methodological manageability and ensure depth of institutional engagement, particularly given the time and resource constraints of conducting in-person and institutional data collection. A larger sample (e.g., 10–12 universities) could risk reduced quality of institutional insights and data accuracy. Furthermore, these universities have been involved in prior collaborative research efforts, providing a supportive environment for data access and survey implementation. This selective inclusion enhances the study's internal consistency and feasibility. Importantly, selecting universities with observable contract lecturer groups ensured that job insecurity is not treated as an abstract concept but as an employment condition that is present in the study setting.

These universities are in cities such as Yancheng, Suzhou, Huai'an, Nanjing, Changzhou, and Lianyungang. These cities, ranging from large urban centers to smaller county-level cities, differ significantly regarding social, economic, and cultural development. This variation among universities provides a comprehensive view of the diverse higher education landscape in Jiangsu, which is critical for understanding the range of job stress and organizational dynamics experienced by university lecturers. Importantly, each institution has established policies regulating contract lecturers' employment, renewal, and evaluation (contract-based lecturers), including workload expectations, performance appraisal, and contract duration guidelines. These institutional arrangements make job insecurity meaningful in this setting because lecturers may perceive uncertainty related to renewal decisions and evaluation outcomes. Mentioning these policies strengthens the institutional relevance of studying job insecurity within this academic context.

Table 3.1: Research Site Characteristics

University	City	Academic Specialty	Campus Features	Faculty and Student Diversity	Institution Size	Local Academic Community
Yancheng Institute of Technology	Yancheng	Engineering, Applied Sciences, Information Technology	Modern engineering labs are applied research facilities	Diverse	Medium	Strong
Suzhou University of Science and Technology	Suzhou	Science, Technology, Environmental Engineering	Cutting-edge technology centers and research labs	Diverse	Medium	Strong
Huaiyin Institute of Technology	Huai'an	Engineering, Computing, Applied Sciences	State-of-the-art labs, industry-academic collaboration	Diverse	Medium	Strong
Nanjing Institute of Engineering	Nanjing	Electrical Engineering, Mechanical Engineering, IT	Innovative labs, technology incubators	Diverse	Medium	Strong
Jiangsu University of Technology	Changzhou	Technology, Automation, Industrial Engineering	Industry-driven labs, modern research infrastructure	Diverse	Medium	Strong
Jiangsu Ocean University	Lianyungang	Marine Sciences, Aquaculture, Environmental Science	Marine research centers, coastal research facilities	Diverse	Medium	Strong

Given Jiangsu's prominent role in China's educational system, this province is strategically suited for exploring patterns related to job stress and organizational commitment in academic institutions. The selected universities represent a mix of institutions with solid vocational and technical focuses, offering an ideal environment for examining how job insecurity changes the strength of the relationship between role stressors

and job stress, and how job stress then relates to organizational commitment among contract-based university lecturers. These institutions also participate extensively in academic research, particularly in areas related to job stress and educational outcomes, providing a solid foundation for this study's framework. This focus also matches the study population because contract-based lecturers are more likely to experience uncertainty in employment continuity, which can shape their stress responses and workplace attachment.

These universities, emphasizing applied sciences, technology, and engineering, provide a rich backdrop for studying the job stressors and organizational dynamics unique to their academic environments. Each institution boasts a blend of permanent and contract-based lecturers, making them well-suited for examining the moderating effects of job insecurity on the relationship between role stressors and organizational commitment. Contract-based lecturers, in particular, face significant challenges due to the temporary nature of their employment, leading to heightened job insecurity and its consequent impact on organizational commitment and job performance. For this reason, selecting application-oriented universities with active contract lecturer groups supports clearer interpretation of stress experiences that are tied to real employment structures rather than general assumptions.

By focusing on these institutions, this study aims to delve into the complexities of role stressors, job insecurity, and organizational commitment within the context of Jiangsu's higher education system. The diversity of the selected universities allows for a broad analysis of how different employment conditions, institutional environments, and industry collaborations influence the well-being and productivity of academic staff. Ultimately, the findings contribute to more effective management practices in educational institutions,

helping to address the challenges faced by contract-based lecturers and fostering a more supportive academic environment.

3.3 Research Design, Sampling, and Procedure

This study investigates the complex interplay between role stressors, job stress, job insecurity, and organizational commitment within the diverse academic landscape of Jiangsu Province. This section outlines a methodological approach designed to examine these multifaceted relationships in a clear and systematic manner. The research design integrates a thorough literature review with empirical investigation shaped by the unique dynamics of Jiangsu's higher education institutions. It seeks to illuminate the factors influencing educator well-being and performance, offering insights into individual and organizational dimensions of academic work life. This section presents the sampling rationale, the measurement approach, and the statistical techniques used to analyze the data. Each step in the research process has been carefully structured to ensure the findings are robust and applicable to the broader context of occupational stress in academia.

3.3.1 Research Design

The current study employed a cross-sectional design, which enabled the researchers to examine the relationships among role stressors, job stress, job insecurity, and organizational commitment at a single point in time rather than tracking changes over time. This study was conducted in Jiangsu Province, and no variables were manipulated, which supports the use of a cross-sectional survey for examining associations in a natural institutional setting (Salkind, 2010; Shah et al., 2022). This design is suitable for testing the

proposed model because it allows the examination of both direct relationships and moderation effects using survey data.

In this study, role ambiguity, role overload, and role conflict were treated as predictors of job stress, while job insecurity was modeled as a moderator that may change the strength of the relationships between role stressors and job stress. Job stress was then examined in relation to organizational commitment dimensions. This structure is consistent with past occupational stress research that uses cross-sectional survey designs to test explanatory models in organizational settings (Dodanwala et al., 2023; Gall & Borg, 1989). The study also included a pilot study before the main survey. Through this pilot, the questionnaire items were refined, unclear wording was corrected, and the reliability of the measures was strengthened, supporting the overall quality of the main data collection (Gabriel, Arena Jr, et al., 2022; Wallen & Fraenkel, 2013). Overall, the cross-sectional design provided a practical and appropriate approach for examining the proposed relationships in the Jiangsu academic context.

3.3.2 Sample Selection and Size

The minimum sample size calculation was based on power analysis for multiple regression, considering the number of predictors, expected effect size, and desired statistical power. As shown in Figure 3.1, a minimum of 160 participants was required, determined using G*Power analysis with a medium effect size ($f^2 = 0.15$), a power of 0.95, and an alpha level of 0.05. This calculation was used to confirm that the study had sufficient statistical power to test the proposed relationships, including the main effects of role stressors and job

stress and the moderation effects of job insecurity. These parameters align with Cohen's recommendations for social science research (Fair et al., 2023).

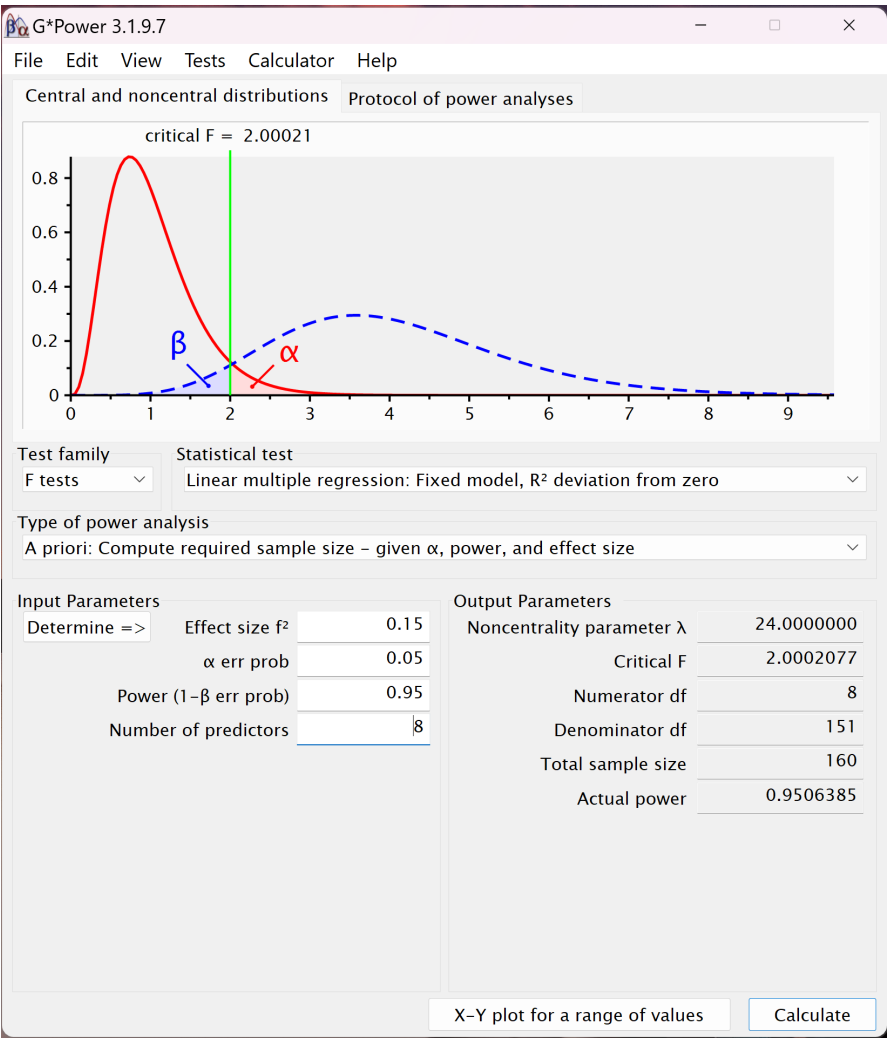


Figure 3.1: Results of G*Power Analysis

The sample was chosen using a purposive sampling strategy tailored to the heterogeneous educational landscape of Jiangsu Province, where faculty members serve in diverse institutional types. This approach ensures that the sample reflects the diversity of the teaching population and aligns with recommended practices for enhancing the depth and applicability of educational research findings (Kim & Jung, 2022; Thompson, 2012). Contract-based lecturers, a focal group of this study, were explicitly included to enable a

comprehensive analysis of their experiences. The selection focused on the six participating application-oriented universities described in Section 3.2, because these institutions have identifiable contract-based lecturer groups and formal employment renewal and evaluation arrangements that are relevant to job insecurity. These lecturers were identified through administrative records and direct inquiry within participating institutions, where the faculty affairs office or department administration confirmed contract-based status before distribution. Only lecturers who met the inclusion criteria (contract-based employment and at least one year of teaching experience) were invited to participate, ensuring accurate inclusion of those on temporary or short-term contracts. This purposive approach allows the study to capture context-relevant insights into job insecurity and organizational commitment across different institutional settings within Jiangsu Province, providing a holistic understanding of the challenges faced by university lecturers in Jiangsu Province. The deliberate and rigorous sample selection process enhances the reliability and relevance of the findings, contributing valuable perspectives to the broader educational context in China.

3.3.3 Data Collection Procedure

A structured questionnaire was used to collect the data from university contract lecturers in Jiangsu Province. The goal was to explore their professional roles, job stress, and organizational commitment. The survey method was selected because it is efficient and effective for gathering large quantities of standardized data required to test the proposed model. First, formal permission was requested from each participating university before approaching any lecturers. The research communicated the study plan to the universities through two main channels. The first approach was to contact the relevant department head or administrative office responsible for faculty affairs and research coordination through e-

mail and phone. These university contacts were provided with the study objectives, eligibility criteria, confidentiality statement, and the data collection plan. After institutional approval was obtained, the researcher personally visited the six selected universities to distribute and collect the completed questionnaires. In cases where on-site access was limited, the same approved questionnaire was shared through an online link provided by the university contact person to eligible lecturers.

Participants were selected based on the following criteria: (1) they must be contract-based lecturers working under temporary, fixed-term, or short-term agreements, and (2) they must have at least one year of teaching experience in their current university. This experience threshold ensured that participants were sufficiently familiar with their professional responsibilities and the organizational environment. Participants from diverse academic disciplines were also selected to capture a broad spectrum of experiences and perspectives related to job stress and organizational commitment. Eligibility was confirmed through the university faculty affairs office or department administration, which verified contract status and years of service based on internal employment records before the questionnaire was distributed. After recruiting and making participants aware of the importance of the proposed study, questionnaires containing the measurement instruments were given to each participant, along with a letter explaining the research purpose and why their contribution was significant. The researcher organized an introductory session where feasible to ensure clarity before entering the questionnaire's main body. In this session, the researcher explained the benefits of the study's results to the academic community and reconfirmed voluntary participation, anonymity, and confidentiality.

During administration, the researcher remained available to answer questions and clarify item meanings, but did not influence responses. Lecturers were also reminded to confirm that they met the minimum one-year experience criterion before completing the questionnaire, and the first part of the questionnaire included a short screening confirmation of contract status and teaching experience to reduce ineligible participation. Clear instructions were given on the purpose and steps to answer the questions. It was decided that the survey was also to be done online in case one prefers to respond to the questions at a later date, or when lecturers were unavailable during on-site distribution, as well as for the convenience of distance and time since it is nowadays a common method used for data collection in educational research, as described by Taherdoost (2021). Furthermore, the survey was self-administered to encourage respondents to give honest and comprehensive answers suitable for the study because it gives them enough time to reflect before giving out the final expected reply (Taherdoost, 2021). In summary, the data collection procedure for this study was carefully designed to accommodate the unique context of academic institutions in Jiangsu Province, ensuring the collection of high-quality, relevant data while respecting the time and commitments of the participants.

3.4 Development of Research Questionnaire

A structured questionnaire survey was designed to capture the complex relationships among university lecturers in Jiangsu Province. To ensure language suitability for the target respondents, the questionnaire was prepared and distributed in both English and Mandarin Chinese. The Mandarin version was produced using a translation and back-translation process to maintain meaning consistency across languages, and the final wording was reviewed during the pilot stage to ensure clarity. The instrument mainly used closed-ended

items to support standardized measurement and to allow respondents to report their perceptions in a consistent format. The response options enabled respondents to indicate the level of agreement with statements describing their work experiences, which supported quantitative analysis of patterns and relationships in the data.

The questionnaire was constructed based on a wide-ranging literature review. Theoretical and empirical works in educational psychology, organizational behavior, and occupational stress research, including Xuan (2020) and Braun et al. (2021), were considered. Through this review, the key constructs relevant to the current model were identified, including role ambiguity, role overload, role conflict, job insecurity, job stress, and organizational commitment, which were then transformed into specific questionnaire items. References to job satisfaction were removed here because job satisfaction is not a construct in the present study model. To ensure that the items had sound psychometric properties, the questionnaire adopted validated measurement scales used in previous research and made minor wording adjustments only when required for clarity and cultural suitability. This approach supports measurement credibility and strengthens comparability with prior studies. Overall, the questionnaire development combined theoretical grounding and practical refinement, ensuring that the final instrument was appropriate for contract-based lecturers in Jiangsu Province and aligned with the study objectives.

3.5 Measures

The questionnaire was designed based on the required data to ensure the survey's adequacy. The first section collected respondents' demographic information, including gender, age, degree, recruitment style, and salary, which was essential for analyzing the main

study variables. The second section was structured according to the study's primary constructs, covering role ambiguity, role overload, job insecurity, job stress, and organizational commitment (affective, continuance, and normative). Each construct was measured through items adapted from validated scales in previous research, ensuring the reliability and validity of the measures.

All construct items were measured using a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The 7-point scale was selected because it can capture finer differences in perceptions than shorter response formats and is widely used in organizational and educational research (Alhassan et al., 2022; Likert, 1932). Using established measures and a consistent response format supported reliable data collection and improved comparability across constructs and prior studies. Additionally, scale selection and wording were guided by relevance to the study objectives and the context of Chinese contract-based lecturers. Minor wording revisions were made only when needed to improve clarity in the local context, as confirmed during pre-testing (See Table 3.2).

Table 3.2: Measurement Item Adoption and Adaptation Overview

Construct	Primary Source(s)	Number of Items	Use in this Study
Role Ambiguity	Shepherd and Fine (1994); Netemeyer et al. (1990)	6	Adopted with minor wording adjustments where needed for clarity
Role Overload	Coverman (1989); Hecht (2001)	8	Adopted with minor wording adjustments where needed for clarity
Role Conflict	Netemeyer et al. (1990); Pandey and Kumar (1997)	6	Adopted with minor wording adjustments where needed for clarity
Job Insecurity	Probst (2003)	7	Adopted; selected items clarified during pre-testing
Job Stress	Shukla and Srivastava (2016)	8	Adopted; selected items clarified during pre-testing
Affective Commitment	Schoemmel et al. (2015); Fernandez-Lores et al. (2016)	6	Adopted with minor wording adjustments where needed for clarity
Normative Commitment	Allen and Meyer (1990); Hadi and Tentama (2020)	5	Adopted with minor wording adjustments where needed for clarity
Continuance Commitment	Allen and Meyer (1990); McGee and Ford (1987)	5	Adopted with minor wording adjustments where needed for clarity

Note. Table 3.3 reports item-level wording revisions made after pre-testing. All items were included in both language versions using translation and back-translation procedures to maintain meaning consistency.

3.5.1 Role Ambiguity

The six items arranged randomly in the questionnaire measure the lecturers' perceptions of role ambiguity. These items were adapted from the study by Shepherd and Fine (1994) and Netemeyer et al. (1990). This scale was applied uniformly across six items

designed to measure various aspects of role ambiguity. A higher cumulative score on these items reflected a more significant perceived ambiguity in the participants' job roles, suggesting that lecturers with higher scores experienced more uncertainty and lack of clarity regarding their job expectations and responsibilities.

3.5.2 Role Overload

The eight items arranged randomly in the questionnaire measure the lecturers' perceptions of role overload. These items were adapted from the study by Coverman (1989) and Hecht (2001). This scale was used consistently across eight items designed to gauge different facets of role overload. Higher cumulative scores on these items indicated a more significant perceived overload in their job roles, suggesting that lecturers with higher scores felt more overwhelmed by their job demands and responsibilities.

3.5.3 Role Conflict

The six items arranged randomly in the questionnaire measure the lecturers' perceptions of role conflict. These items were adapted from the study by Netemeyer et al. (1990) and Pandey and Kumar (1997). This scale was applied to six items that measured various aspects of role conflict. Higher cumulative scores on these items suggested a more significant perceived conflict in their job roles, indicating that lecturers with higher scores experienced more contradictions and inconsistencies in their job expectations and responsibilities.

3.5.4 Job Insecurity

The seven items arranged randomly in the questionnaire measure the lecturers' perceptions of job insecurity. These items were adapted from the study by Probst (2003). This scale was used consistently across seven items designed to measure various aspects of job insecurity. Higher cumulative scores on these items indicated greater perceived insecurity regarding their job stability, suggesting that lecturers with higher scores felt more uncertain and anxious about their job security.

3.5.5 Job Stress

The eight items arranged randomly in the questionnaire measure the lecturers' perceptions of job stress. These items were adapted from the study by Shukla and Srivastava (2016). This scale was applied uniformly across eight items that measured various dimensions of work-related stress. Higher cumulative scores on these items reflected a greater perceived level of job stress, indicating that lecturers with higher scores felt more stressed and pressured by their work-related responsibilities and conditions.

3.5.6 Affective Commitment

The six items arranged randomly in the questionnaire measure the lecturers' perceptions of affective commitment. These items were adapted from the study by Schoemmel et al. (2015) and Fernandez-Lores et al. (2016). This scale was consistently applied across six items designed to measure various aspects of emotional attachment to their organization. Higher cumulative scores on these items indicated a stronger emotional

attachment and identification with their organization, suggesting that lecturers with higher scores felt more connected and loyal to their workplace.

3.5.7 Normative Commitment

The five items arranged randomly in the questionnaire measure the lecturers' perceptions of normative commitment. These items were adapted from the study by Allen and Meyer (1990) and Hadi and Tentama (2020). This scale was used uniformly across five items designed to measure various aspects of the sense of obligation to remain with their organization. Higher cumulative scores on these items indicated a stronger sense of obligation to stay with their organization, suggesting that lecturers with higher scores felt more compelled to remain committed to their workplace out of a sense of duty.

3.5.8 Continuance Commitment

The five items arranged randomly in the questionnaire measure the lecturers' perceptions of continuance commitment. These items were adapted from the study by Allen and Meyer (1990) and McGee and Ford (1987). This scale was consistently applied across five items to measure the perceived cost of leaving the organization. Higher cumulative scores on these items indicated a more significant perceived cost associated with leaving the organization, reflecting a more substantial continuance commitment. This suggests that lecturers with higher scores felt that leaving their organization would incur significant personal or professional costs.

Table 3.3: Summary of Measurement Scales

Variable Name	Total Items	Reliability (Cronbach's Alpha)	Sources
Affective Commitment	6	0.950	Schoemmel et al. (2015); Fernandez-Lores et al. (2016)
Normative Commitment	5	0.943	Allen and Meyer (1990); Hadi and Tentama (2020)
Continuance Commitment	5	0.946	Allen and Meyer (1990); McGee and Ford (1987)
Job Insecurity	7	0.954	Probst (2003)
Job Stress	8	0.965	(Shukla & Srivastava, 2016)
Role Ambiguity	6	0.952	Shepherd and Fine (1994); Netemeyer et al. (1990)
Role Overload	8	0.963	Coverman (1989); Hecht (2001)
Role Conflict	6	0.949	Netemeyer et al. (1990); Pandey and Kumar (1997)

3.6 Pre-Testing

The pre-testing process was carried out as a vital step in the field of survey research. The pre-testing process included testing the questionnaire on a small group of respondents. The primary purpose of the pre-test was to find cases of a problem in the survey instrument.

Moreover, it also examined whether the questionnaire was clear, concise, well-structured, and could be administered within a certain period. In line with the purposes of the study, which emphasized academic areas, a questionnaire was needed to validate through a pre-test to be administered to the university lecturers in Jiangsu Province. The main objectives of the pre-test were the validity of the structure of the questionnaire, as well as measures to identify closer relationships between the criterion variables, such as role stressors, job stress, and organizational commitment, as well as role and moderation of job insecurity.

Contract lecturers were included in the sample, which consisted of university lecturers from five institutions designated as first-class applied undergraduate universities by the Jiangsu Provincial Department of Education in 2024. The selected universities, Yancheng Institute of Technology, Suzhou University of Science and Technology, Huaiyin Institute of Technology, Nanjing Institute of Technology, Jiangsu Institute of Technology, and Jiangsu Ocean University, were chosen due to their applied undergraduate focus, ensuring the sample aligns with the study's academic scope. University Lecturers were asked to give feedback on the questionnaire designed for the abovementioned constructs. As the study was based on academic areas, it was essential for the questionnaire to be understood without any ambiguity. Ensuring the inclusion of lecturers from applied universities further validated the instrument's relevance to academic environments. It was also imperative that all the educators understand the terminology used in the questionnaire and whether they belonged to an academic area.

Following the completion of the questionnaire, we had an in-depth discussion with each of the participants. These discussions were vital in revealing whether there was any clear and confusing item in the questionnaire. The teacher-researcher interaction in these

discussions let the researcher know how the lecturers interpreted the survey items. This feedback was essential as it enabled the researcher to change the questions to have a suitable questionnaire for the target population. For the pre-test, changes made to the questionnaire after the pre-test involved eliminating complex statements to simple-to-understand statements and rephrasing the items to enhance clarity. This process improved the validity and, eventually, the reliability of the questionnaire. The final version of the questionnaire incorporating the changes was critically reviewed and approved by the research supervisor to determine its suitability for the main study.

The pre-test results indicated that most questionnaire items were well-understood and relevant to the measured constructs. However, feedback revealed that certain terms and phrases were perceived as too technical or ambiguous, particularly in items measuring job stress and insecurity (Table 3.4). These were revised to ensure clarity and comprehension.

Table 3.4: Outcomes of Pre-testing and Amendments

Section & Item	Feedback from Respondents	Comments/Issues Identified	Revised Item
Job Insecurity (21)	"The phrase 'having to leave my job before I would like to' is vague."	Clarify the time frame and rephrase it for simplicity.	I am worried about having to leave my job before I would like to.
Job Insecurity (22)	"The term 'continuity' seems unclear. Could you specify what you mean?"	Respondents struggled with abstract terms.	There is a risk that I will have to leave my present job in the month or year to come.
Job Insecurity (23)	"The term 'future in this organization' is too broad and difficult to interpret."	Feedback indicated the need for more specific language.	I feel uneasy about losing my job in the near future.
Job Insecurity (27)	"What does 'pay development' mean? It is not a familiar term."	Respondents preferred explicit descriptions of pay concerns.	My pay development in this organization is not promising.
Job Stress (28)	"The phrase 'emotionally exhausted' feels overly formal."	Simplify the item to make it more relatable to participants.	I feel emotionally drained by my job.
Job Stress (32)	"What do you mean by 'lose appetite'? Is it job-related stress or something else?"	Specify the connection to job-related problems.	I lose my appetite because of my job-related problems.
Job Stress (34)	"The phrase 'my health suffers' is too general. Can you make it more specific?"	Respondents wanted tangible and relatable examples of stress symptoms.	Job-related problems make my stomach upset.
Job Stress (35)	"What do you mean by 'affects personal life'? It is too abstract."	Replace general phrases with concrete examples of physical stress symptoms.	Job-related problems make my heart beat faster than usual.

3.7 Statistical Analysis

SPSS version 28.0 and WarpPLS 8.0 were employed to assess the data collected in the present study. At first, the demographic profile of the respondents was analyzed, descriptive analysis (e.g., Mean and Standard Deviation), which is done using SPSS 28.0, followed by assessing multicollinearity and detection of common method variance by using Harman's single factor test, also employing SPSS 28.0. In addition, path modeling and bootstrapping of the developed model were carried out using partial least squares-structural equation modeling (PLS-SEM) using WarpPLS 8.0.

3.7.1 Descriptive Statistics

Descriptive statistics were used to report the socio-demographic characteristics of the respondent's gender, age, degree, and salary. The mean values of the average age of the respondents were measured, whereas the frequency and percentage of other variables were calculated. A series of descriptive statistical analyses presented the frequency, percentage, mean, and standard deviation of the profiles of respondents.

3.7.2 Common Method Variance

According to Podsakoff et al. (2003), common method variance (CMV) occurs when a proportion of the variance in responses to variables can be attributed to the measurement method rather than the constructs being measured. CMV can arise from internal consistency, social desirability bias, or a single measurement method, leading to common method bias (CMB). This bias can artificially inflate or deflate observed relationships between constructs,

potentially resulting in Type I or Type II errors. Addressing CMV is essential to ensure the validity and reliability of the results.

This study employed a marker variable approach to detect and mitigate potential CMV, following the guidelines of Podsakoff et al. (2003). Unlike traditional methods such as Harman's single-factor test, which assumes CMV manifests as a single dominant factor accounting for more than half of the total variance, the marker variable approach provides a more robust statistical mechanism to account for shared method variance. A theoretically unrelated marker variable was incorporated into the structural model, with paths drawn to all endogenous variables to estimate its influence on these constructs.

3.7.3 Reliability Analysis

Reliability was assessed based on the term itself, whether measurement items for each factor show consistency and stability within measurements that researchers can rely on (Haque & Khatibi, 2005). Since scale items in the questionnaire needed consistency, a reliability analysis was necessary. Cronbach's coefficient alpha, introduced by (1951), was used as a standardized measure of internal consistency of multiple-item scales. Wherever scale ambiguity was verified, all measurement items originated from the study's exact underlying dimensions. According to the recommendations offered by Sekaran (1992), Cronbach's coefficient alpha is within the range of 0 to 1; an ideal value is 0.7 or higher. For each factor, if the items' coefficient alpha exceeds 0.7, it would indicate strong consistency between items; otherwise, it would indicate weak or poor consistency. As such, this study applied the recommended threshold of Cronbach's coefficient alpha to warrant the reliability of the measurement items.

3.7.4 Multicollinearity Statistics

Multicollinearity was a factor that affected the standard error of coefficients in partial regression (Meyer & Allen, 1997) because of their high correlation with two or more independent variables. In order to address this, tolerance values and variance inflation factor (VIF) analyses were performed to assess the study variables. Hair et al. (2011, 2017) have suggested a valid threshold tolerance value set at 0.20 or higher to prevent collinearity problems and a valid VIF value set below 5.00. Moreover, multicollinearity was removed if the values of VIF are greater than 10 (Bock et al., 2005). According to these guidelines, this study assessed and managed the multicollinearity.

3.7.5 Partial Least Squares Structural Equation Modeling (PLS-SEM)

Structural Equation Modeling (SEM) was generally used as a second-generation method for multivariate data analysis (Fan et al., 2016; Haenlein & Kaplan, 2004) to test linear and additive causal models that were theoretically justified. SEM allows for examining complex models and unobservable latent variables and provides a practical way to solve research problems (Bodoff & Ho, 2016; Hanushek & Jackson, 2013; Ho, 2016). Firstly, SEM techniques were initially aimed at causal modeling by path analysis. Factor analysis became an integral part of SEM to facilitate the increased demands in social sciences (Wright, 1920).

The primary analytical approaches within SEM are confirmatory factor analysis (CFA) and path analysis. Path analysis (Wright, 1920) is a technique for quantifying relationships among multiple variables, and confirmatory factor analysis involves investigating latent variables by investigating correlations in the data set (Byrne, 2013; Hoyle, 2011; Kline, 2010). SEM is extensively employed across multiple domains, such as

in information systems using behavioral data analysis (Bodoff & Ho, 2016), tourism research to study destination impacts (do Valle & Assaker, 2016; Nunkoo et al., 2013), ecological experiments (Fan et al., 2016), and business and social sciences research (Henseler et al., 2016; Ringle et al., 2023).

CB-SEM and PLS-SEM approaches (component or variance-based) constitute SEM (Bodoff & Ho, 2016). The fit between the observed covariance matrix and the hypothesized covariance model is assessed by CB-SEM, using LISREL, AMOS, EQS, and Mplus as software. On the other hand, PLS-SEM was used to explain variance, for which we had software options such as PLS-Graph, VisualPLS, WarpPLS, and SmartPLS. WarpPLS and SmartPLS are often used for PLS-SEM analysis. Adopting CB SEM means that multivariate normality, minimum sample size rules, reflective constructs, and a solid theoretical model (Shiau et al., 2019) were still applicable. Unlike PLS-SEM, these restrictions were not imposed, and PLS-SEM was recommended for causal relationships among latent variables. Thus, this research study employed PLS-SEM to examine the proposed research model. Many factors contributed to this choice. Second, structural models with limited sample sizes are well served by PLS-SEM (Marcoulides et al., 2009). Second, PLS-SEM can simultaneously analyze reflective and formative measurement models (Diamantopoulos & Winklhofer, 2001). Finally, PLS-SEM can deal with non-normal data seen in social sciences studies, except when a large enough sample is used to ensure normality (Lohmöller, 1989; Vinzi et al., 2010).

In applying PLS-SEM, measurement and structural model analyses were conducted for testing (Barroso et al., 2010; Felipe et al., 2016). As shown in Table 3.5, the initial measurement model's reliability, convergent, and discriminant validity were assessed using

confirmatory factor analysis (Westerlund & Rajala, 2010). This was verified through internal consistency by ensuring all item loadings meet a minimum threshold of 0.50 (Gefen et al., 2000). First, Composite reliability (CR) must reach the threshold of 0.70 (Kamis et al., 2020), and the Average variance extracted (AVE) value must be at least 0.50 (Fornell & Larcker, 1981). The Fornell-Larcker criterion assesses discriminant validity in analyzing correlation ratios (Henseler et al., 2015; Voorhees et al., 2016).

Table 3.5: Evaluation of Measurement Model

Criterion	Explanation
Composite Reliability (CR)	This criterion ensures internal consistency. It is calculated using the formula: $pc = (\sum \lambda_i)^2 / [(\sum \lambda_i)^2 + \sum \text{Var}(\epsilon_i)]$, where λ_i represents the outer loading for an indicator, and $\text{Var}(\epsilon_i) = 1 - \lambda_i^2$ for standardized indicators. A value of 0.6 or above is acceptable.
Indicator Reliability	The standardized outer loadings for each indicator should exceed 0.7. This ensures that the indicators are reliable and contribute meaningfully to the latent variable.
Average Variance Extracted (AVE)	AVE evaluates the variance captured by a construct. It is determined by the formula: $AVE = (\sum \lambda_i)^2 / [(\sum \lambda_i)^2 + \sum \text{Var}(\epsilon_i)]$, where λ_i is the loading and $\text{Var}(\epsilon_i) = 1 - \lambda_i^2$. A threshold of 0.5 or higher is recommended for adequate convergent validity.
Fornell-Larcker Criterion	This method checks discriminant validity. It requires the AVE of a latent construct to be greater than the squared correlations with all other constructs. This ensures that the construct is more strongly associated with its indicators than with indicators of other constructs.
Cross-Loadings	Cross-loadings provide additional evidence for discriminant validity. An indicator should load more strongly on its associated construct than on any other construct. If this condition is not met, the model may need reevaluation.

Source: Adapted from Henseler et al. (2009)

Once the measurement model fitted the required criteria, it was assessed using structural models. Standard errors, p-values, and t-statistics for hypothesis testing are generated by bootstrapping techniques (Roldán & Sánchez-Franco, 2012). One-tailed hypotheses needed to have t values above 1.645 ($p < 0.05$) or 2.33 ($p < 0.01$) in this study. Endogenous construct R^2 values were also reported (see Table 3.6). A blindfolding procedure calculates Q^2 (Chin, 1998) to examine predictive relevance. PLS estimation procedures were performed to test the hypotheses using WarpPLS 8.0. This tool gives classical and factor-based PLS algorithms for accurate composites and factor estimation (Kock & Lynn, 2012). The research model consisted of 9 hypotheses, 6 direct hypotheses, and 3 moderation hypotheses. Due to a model's complexity, analysis via WarpPLS 8.0 is deemed suitable. As a result, WarpPLS 8.0 is used to analyze the research model in this study.

Table 3.6: Evaluation of Structural Model

Criterion	Explanation
R^2 of Endogenous Latent Variables	The coefficient of determination (R^2) represents the explanatory power of the model for dependent latent variables. Values of 0.67, 0.33, or 0.19 are considered substantial, moderate, or weak, respectively, following the guidelines of Chin (1998).
Path Coefficients	Path coefficients in the structural model should be assessed for their direction (positive or negative), strength (magnitude), and statistical significance. Bootstrapping techniques are commonly used to evaluate significance.
Prediction Relevance (Q^2 and q^2)	Prediction relevance (Q^2) is determined using the blindfolding procedure with the formula: $Q^2 = 1 - (\Sigma DSSD)/(\Sigma DSSOD)$, where D is the omission distance, SSE is the sum of squared prediction errors, and SSO is the sum of squared observations. A Q^2 value above zero indicates predictive relevance, while a value below zero suggests a lack of relevance. Additionally, q^2 assesses the relative impact of structural models on dependent variables.

Source: Adapted from Henseler et al. (2009)

3.7.5.1 Average Variance Extracted (AVE)

The Average Variance Extracted (AVE) is a widely used measure to check the convergent validity of a measurement model. The measure quantifies how much of the variance in the indicators of a construct is associated with the underlying construct as opposed to measurement errors. (Barclay & Smith Jr, 1995; Fornell & Larcker, 1981) AVE indicates the proportion of common variance captured by the indicators, and higher values are stated to represent greater convergent validity. Convergent validity is usually assessed by using a threshold value for AVE. A widely accepted guideline is that a value for AVE below 0.5 is inadequate since the error variance of the indications exceeds the variance of the indications to which it is attributable (Bagozzi & Yi, 1988). Satisfactory convergent validity is obtained if the AVE value exceeds 0.5 (Henseler et al., 2009). Indicators of a construct were assessed to the extent to which they analyze the variance of the constructs as a convergent validity criterion using AVE, whereas the measurement model reliability was determined using the AVE. Through AVE, researchers could see the strength of relationships between indicators and the construct, and if the indicators contribute to measuring the intended construct. The AVE values obtained by this assessment allowed researchers to determine if their measurement model was appropriate and if their findings were valid.

3.7.5.2 Composite Reliability (CR)

Composite Reliability (CR) is a widely used metric that measures the scale's internal consistency. It indicates how free the dimension is from random errors within items in the scale (Werts et al., 1974; Chin, 1998; Riquelme & Miguel, 2010). CR is between 0 and 1, with higher values indicative of better internal consistency. Researchers then utilize

threshold values to indicate the adequacy of CR. In the literature, a minimum CR value of 0.60 was considered generally acceptable (Nunally, 1978). However, a CR value 0.70 has often been recommended for higher internal consistency (Churchill, 1979; Fornell & Larcker, 1981; Gefen et al., 2000; Chin, 2010). CR evaluates a researcher's measurement model for reliability and provides a benchmark to check if the vector of items in the scale consistently measures the intended construct. Items with higher CR values indicate higher internal consistency, which means that the items are highly correlated, and thus, we can rely on them as a measure of the underlying construct.

3.7.5.3 Convergent Validity

Reliability refers to its convergent validity (Bagozzi & Phillips, 1982), the most important aspect of construct validity in research. In other words, the indicator's suitability and the determining variables' reliability are assessed (Lee & Chen, 2010). The consistency and stability of items or indicators within a construct is known as indicator reliability. Research measures indicator reliability by testing whether the items reliably measure the construct (Bagozzi & Philips, 1982). It guarantees that the measurement model will reflect the underlying construct and deliver consistent outcomes. Composite reliability (CR) measures the internal consistency of a measurement scale (Chin, 2010), and values above 0.70 are generally acceptable. Convergent validity considers, in addition to reliability, the degree to which a construct is associated with the indicators, with a minimum threshold of 0.50 for the average variance extracted (AVE) (Fornell & Larcker, 1981). Researchers validated the construct by establishing a strong relationship between the construct and its indicators (Lee & Chen, 2010). If CR and AVE values were more significant than the

perimeters of the above validation thresholds, the measurement model would be reliable and measure this construct as intended.

3.7.5.4 Discriminant Validity

The discriminant validity of the different constructs being assessed serves as a basis for testing the distinctiveness and uniqueness of different constructs and also evaluates the relationship patterns among potentially interrelated measurements (Barclay & Smith Jr, 1995; Fornell & Larcker, 1981). Evaluating discriminant validity allowed researchers to determine that the indicators or variables in a construct were not highly correlated (avoiding multicollinearity issues). High correlations among predictor variables were called multicollinearity and may cloud results interpretations and prevent the extraction of unique effects (Fornell & Larcker, 1981). To respond to this concern, manifestation indicators or variables were analyzed in the discriminant validity regarding whether the square root of the average variance extracted (AVE) of each construct was more significant than its correlations with other constructs (Fornell & Larcker, 1981). A standard guideline prescribes that discriminant validity was satisfied if the square roots of AVEs exceed the correlations between that construct and other constructs (Barclay & Smith Jr, 1995). It suggested that a construct explains more of the variance of its indicators than other constructs' indicators, thus confirming its distinctiveness. In establishing discriminant validity, the researchers could ascertain whether a construct sufficiently discriminates from other constructs so that their measurement model was intact and robust.

3.7.5.5 Coefficient of Determination (R^2)

In this study, R^2 is an important model performance measurement (Hair et al., 2011). Interpretation of R^2 values is provided by Cohen (1988), who gives a framework for model strength. These guidelines used an R^2 of 0.67 to show a substantial model, meaning that the independently assessed variables significantly contribute to the variance of the dependent variable. The moderate model had an $R^2 = 0.33$, meaning that an independent variable variation explains moderate variation. A R^2 value of 0.19 indicates a weak model as only a tiny portion of the variance is explained. This study reported the R^2 values to assess the robustness and explainability of the model to the dependent variables.

3.7.5.6 Predictive Relevance (Q^2)

This study implements a blindfolding procedure to test the predictive relevance of the research model (Q^2) following Hair et al. (2017). Adding the Q^2 value to the R^2 value aids in assessing the model's predictive abilities. The Q^2 derived from the blindfolding procedure tells what the modeling can predict as the dependent variable. The model had predictive power and forecasted the dependent variables from the independent variables used in the research model if the Q^2 value is greater than zero.

3.7.5.7 Effect Size (f^2)

Effect size (f^2) plays an important part in judging the significance of the relationship between the independent (exogenous) variables and the dependent (endogenous) variable to assess the magnitude of relationships (Chin, 1998). The statistical significance of our relationships was tested through hypothesis testing, but the size effect also helped illustrate

the practical significance. For small, medium, and large effects, effect size values of 0.15, 0.35, and 0.02, respectively, constituted the guidelines that Cohen (1988) (Henseler et al., 2009). This study went beyond significance by calculating and presenting effect size values for each independent variable on a dependent variable. In Partial Least Squares Structural Equation Modeling (PLS-SEM), effect size was particularly relevant because it allowed a further understanding of the quality and strength of the relationships being analyzed between variables (Hair et al., 2017). Statistical significance informs us about relationships, but effect size tells us about the importance of those relationships in real-world practice.

3.7.5.8 Variance Inflation Factor (VIF)

Calculating and presenting the variance inflation factor (VIF) is essential in assessing multicollinearity within the proposed constructs. High correlations among predictor variables (multicollinearity) make parameter estimates unstable and mask individual variable contributions. Multicollinearity issues were addressed in this study by calculating VIFs. VIF values were calculated to determine how much dependency there was among predictor variables. Bock et al. (2005) say a VIF value below 10 would be a reasonable threshold. Good multicollinearity exists if the values of these and other variables are below this level. In this study, reporting VIF values ensures an evaluation of intercorrelation among constructs and ensures that multicollinearity is not a concern.

3.8 Chapter Summary

This chapter outlines the methodology used to examine the relationships among role stressors, job stress, job insecurity, and organizational commitment among contract-based

university lecturers in Jiangsu. A quantitative approach was adopted, using a structured survey to ensure data accuracy and reliability. Data were collected from a representative sample across Jiangsu via electronic and paper-based questionnaires. The questionnaire, developed from existing literature, used a seven-point Likert scale to ensure rigor, reliability, and validity. A pilot study was conducted to refine the instrument. Data analysis employed PLS-SEM via WarpPLS 8.0, while descriptive statistics were analyzed using SPSS 28.0. The PLS-SEM approach included measurement model evaluation (reliability and validity) and structural model analysis for hypothesis testing. Reliability and validity were assessed using Cronbach's alpha, CR, AVE, and the Fornell-Larcker criterion. Multicollinearity was checked via VIF scores. Bootstrapping provided t-values and p-values, while R^2 and Q^2 assessed model explanatory and predictive power. Model fit was evaluated using SRMR, and effect sizes (f^2) assessed relationship strength. This methodology ensured robust findings on job stress, insecurity, and commitment in academia.

CHAPTER 4

RESULTS

4.1 Overview

The current chapter presents the results of the analysis to explore the relationships among the proposed variables within the context of Chinese university-contracted lecturers. This chapter is essential as it delves into the empirical findings derived from statistical procedures, uncovering how role stressors, job stress, and organizational commitment are interconnected, with a particular focus on the moderating role of job insecurity. The introduction to this chapter sets the foundation for an in-depth analysis of the collected data, the methods employed for processing this data, and the interpretation of the findings in line with the study's hypotheses. The analysis used SPSS version 28.0 for descriptive statistics and WarpPLS 8.0 for Partial Least Squares Structural Equation Modeling (PLS-SEM). The chapter first presents the preliminary data analysis and descriptive statistics, then assesses the measurement model to ensure the constructs' validity and reliability. The structural model analysis evaluates the direct and moderating effects, offering insights into how role stressors contribute to job stress and how job stress, in turn, influences organizational commitment. The chapter validates the theoretical framework outlined earlier by employing rigorous statistical techniques, offering valuable contributions to discussions on stress management, employee well-being, and organizational performance within the academic sector.

4.2 Preliminary Data Analysis

Before analyzing the measurement and structural models, a preliminary data screening was conducted to address potential issues such as missing values and straight-lining responses. This step ensured the dataset's suitability for further statistical analyses, including hypothesis testing. SPSS version 28.0 was utilized to perform frequency tests through descriptive statistics, confirming the absence of missing values in the dataset. Additionally, some questions remain reverse items, such as RA1, RA2, RA3, RA4, RA5, RA6, and CC3, were reverse coded to maintain consistency in scale direction and prevent response bias before proceeding with further analysis.

To examine the data's overall tendency, the arithmetic mean (AM), commonly referred to as the mean or average, was calculated to summarize respondents' average responses. Additionally, standard deviation values were computed to assess data dispersion and variability. The results of these descriptive statistics, including the mean and standard deviation for each item, are presented in Table 4.1. These analyses were based on 305 valid responses, covering the independent variables (role stressors, including role ambiguity, role conflict, and role overload), the dependent variables (organizational commitment dimensions, affective commitment, normative commitment, and continuance commitment), and the moderating variable (job insecurity). All variables were measured using a 7-point Likert scale, enabling respondents to express varying degrees of agreement or disagreement with the items. This comprehensive statistical overview ensured the data was appropriately prepared for hypothesis testing and structural equation modeling.

Table 4.1: Descriptive Statistics (N=305)

Item(s)	Mean	Std. Deviation	Item(s)	Mean	Std. Deviation
RA1	4.87	2.066	JI1	4.79	1.979
RA2	4.93	2.001	JI2	4.81	1.965
RA3	4.91	2.018	JI3	4.90	2.000
RA4	4.97	2.000	JI4	4.86	1.960
RA5	4.87	1.995	JI5	4.78	1.973
RA6	4.94	1.992	JI6	4.82	2.061
RO1	4.84	2.054	JI7	4.92	1.997
RO2	4.90	2.083	JS1	5.00	2.031
RO3	4.86	2.070	JS2	4.86	2.043
RO4	4.82	2.028	JS3	4.81	1.987
RO5	4.83	1.985	JS4	4.72	1.970
RO6	4.87	2.060	JS5	4.88	2.030
RO7	4.90	1.950	JS6	4.88	2.045
RO8	4.90	1.996	JS7	4.91	2.096
RC1	4.87	2.003	JS8	4.94	1.993
RC2	4.85	1.982	AC1	4.87	1.930
RC3	4.82	1.952	AC2	4.90	2.003
RC4	4.77	2.006	AC3	4.81	2.022
RC5	4.90	2.000	AC4	4.89	1.980
RC6	4.87	2.016	AC5	4.86	2.016
NC1	4.82	2.015	CC1	4.82	2.052
NC2	4.77	2.023	CC2	4.82	2.052
NC3	4.90	2.053	CC3	4.88	2.060
NC4	4.96	2.027	CC4	4.95	2.011
NC5	4.85	2.021	CC5	4.88	1.999

Note. RA: Role Ambiguity, RO: Role Overload, RC: Role Conflict, JI: Job Insecurity, JS: Job Stress, AC: Affective Commitment, NC: Normative Commitment, CC: Continuance Commitment.

Table 4.1 provides an overview of the descriptive statistics for the variables included in the study, focusing on their mean and standard deviation values. These metrics offer insights into the distribution and central tendency of the responses, ensuring the data is appropriate for subsequent analyses. For Role Ambiguity (RA), represented by items RA1 to RA6, the mean values range from 4.87 to 4.97, with standard deviations around 2.0. These results indicate that responses are moderately distributed with consistent variability across the items. Role Overload (RO), measured by items RO1 to RO8, shows mean scores between 4.82 and 4.90, with standard deviations near 2.0, suggesting moderate perceptions of workload and a balanced spread of responses. Role Conflict (RC), represented by items RC1 to RC6, has mean values ranging from 4.77 to 4.90 and standard deviations close to 2.0, indicating moderate role-related conflicts.

Job Insecurity (JI), captured by items JI1 to JI7, presents mean values between 4.78 and 4.92, with standard deviations around 2.0, reflecting moderate perceptions of job stability and consistent data distribution. For Job Stress (JS), measured by items JS1 to JS8, the mean values range from 4.72 to 5.00, with standard deviations slightly above 2.0, indicating moderate stress levels and a reasonable spread of responses. The dimensions of organizational commitment also exhibit consistent results. Affective Commitment (AC), represented by items AC1 to AC6, shows mean values between 4.81 and 4.90, with standard deviations around 2.0, indicating a balanced level of emotional attachment among respondents. Normative Commitment (NC), captured by items NC1 to NC5, has mean scores ranging from 4.77 to 4.96, reflecting moderate perceived obligations, with standard deviations slightly above 2.0. Finally, Continuance Commitment (CC), measured by items CC1 to CC5, presents mean values between 4.82 and 4.95, with standard deviations around 2.0, suggesting consistent perceptions of the costs associated with leaving the organization.

Overall, the mean values for all variables fall within a moderate range (approximately 4.7–5.0), and standard deviations around 2.0 indicate consistent variability in the data. These descriptive statistics confirm that the dataset is well-distributed and suitable for further statistical analysis.

4.3 Common Method Bias Assessment

Data for this study were gathered using self-administered questionnaires, a process that introduces the potential for common method variance (CMV). CMV refers to the variance attributable to the measurement method rather than the constructs the measures represent, leading to systematic error across variables measured by the same instrument (Mpofu & Sebele-Mpofu, 2023; Richardson et al., 2009). Such variance can induce common method bias, affecting the integrity of the inferred relationships between variables.

The analysis, centered on using a marker variable, explicitly examines the presence of CMV and its potential influence on the relationships in the structural model. The marker variable is critical for identifying and mitigating biases from the shared measurement method. Results indicate that the marker variable does not significantly affect the constructs of interest, suggesting that CMV does not pose a significant threat to the validity of the findings.

Table 4.2 shows that the marker variable's path coefficients to key constructs, Role Ambiguity ($\beta = -0.092$, $p = 0.109$), Role Conflict ($\beta = -0.022$, $p = 0.742$), and Role Overload ($\beta = -0.067$, $p = 0.261$), are all statistically insignificant, indicating that the variance in these role stressors is not systematically influenced by method bias. Similarly, the marker variables' relationships with Job Stress ($\beta = 0.092$, $p = 0.099$), Affective Commitment ($\beta = -0.101$, $p = 0.063$), Normative Commitment ($\beta = -0.027$, $p = 0.626$), and Continuance

Commitment ($\beta = -0.069$, $p = 0.241$) are insignificant. These results collectively confirm that CMV does not inflate or distort the observed relationships between the constructs.

Table 4.2: Marker Variable

	OS	SM	STDEV	T-value	P values
Role Ambiguity -> Job Stress	0.197	0.198	0.060	3.282	0.001
Role Conflict -> Job Stress	0.155	0.156	0.061	2.553	0.011
Role Overload -> Job Stress	0.166	0.166	0.060	2.753	0.006
Job Stress -> Affective Commitment	0.266	0.268	0.061	4.384	0.000
Job Stress -> Continuance Commitment	0.291	0.294	0.059	4.913	0.000
Job Stress -> Normative Commitment	0.292	0.295	0.059	4.919	0.000
Marker Variable -> Role Ambiguity	-0.092	-0.092	0.058	1.604	0.109
Marker Variable -> Role Conflict	-0.022	-0.025	0.068	0.329	0.742
Marker Variable -> Role Overload	-0.067	-0.066	0.060	1.125	0.261
Marker Variable -> Job Stress	0.092	0.094	0.056	1.652	0.099
Marker Variable -> Affective Commitment	-0.101	-0.105	0.054	1.858	0.063
Marker Variable -> Normative Commitment	-0.027	-0.025	0.055	0.487	0.626
Marker Variable -> Continuance Commitment	-0.069	-0.066	0.059	1.173	0.241

The t-statistics for the marker variable's paths are consistently low, further reinforcing its lack of influence on the model. For instance, though nearing marginal significance, the marker variable's effects on Role Ambiguity ($t = 1.604$) and Affective Commitment ($t = 1.858$) fail to meet the threshold for statistical relevance. The low t-values and the nonsignificant p-values underscore that the construct variance is primarily due to substantive relationships rather than methodological artifacts. Finally, incorporating the

marker variable in the analysis provides strong evidence that CMV is not a concern in this study. The absence of significant marker variable effects demonstrates the methodological rigor of the research design and confirms that the observed relationships between the constructs are valid and not confounded by shared measurement methods. This focused assessment ensures the findings' reliability and credibility, affirming the study's theoretical and practical contributions.

4.4 Demographic Characteristics

The data for this research were gathered from six distinguished universities in Jiangsu Province, China, specifically targeting university contract-based lecturers as participants. These institutions, recognized for their academic excellence and strategic importance, include Yancheng Institute of Technology, Suzhou University of Science and Technology, Huaiyin Institute of Technology, Nanjing Institute of Technology, Jiangsu Institute of Technology, and Jiangsu Ocean University. These six universities were chosen based on their designation as first-class applied undergraduate universities by the Jiangsu Provincial Department of Education in 2024. This selection was outlined in the official notice (Su Education Office Gao Han, 2024), which identified these institutions following an evaluation process involving independent applications, condition reviews, expert demonstrations, and result announcements. Their status as construction units for first-class applied undergraduate universities makes them representative of higher education institutions actively contributing to developing applied academic practices in Jiangsu Province. To improve transparency about the sampling coverage, the distribution of usable responses across the six universities is reported in appendix.

The decision to focus on these universities was made to ensure alignment with the study's objectives of examining role stressors, job stress, and organizational commitment among contract-based university lecturers. These institutions were strategically selected as they represent a broad spectrum of applied academic disciplines and operate within the evolving framework of applied undergraduate education in Jiangsu. This focus provides a relevant context for understanding the dynamics of academic stressors and organizational commitment, offering findings that can be generalized across similar regional institutions. In addition, collecting responses from multiple universities supports a broader view of contract lecturers' experiences under different institutional settings within the same provincial policy environment.

The total number of completed and usable responses received for this study was 305, which formed the finalized dataset. A total of 762 questionnaires were distributed, of which 305 were fully completed and usable, while 457 were either partially filled or not returned. This resulted in a response rate of 40.03%, calculated as the number of usable responses divided by the total distributed questionnaires multiplied by 100. This final sample size of 305 ensures robust statistical analysis and provides a strong basis for the study's insights (MacCallum et al., 1999; Wolf et al., 2013). Importantly, this sample size also meets the minimum requirement established in using G Power. The power analysis indicated that at least 160 respondents were required for the planned regression-based testing (medium effect size, power 0.95, alpha 0.05). Therefore, the final dataset of 305 exceeds the required threshold, confirming that the study has adequate sample size for hypothesis testing and PLS-SEM estimation. The moderate response rate reflects the target population's engagement. Ensuring data integrity by excluding incomplete responses further strengthens the credibility and reliability of the research findings.

Following the demonstration of the overall sample size and the initial data collection process, we examine the demographic characteristics of the participants, as summarized in Table 4.3. This table provides a detailed sample breakdown across various demographic variables, including gender, age, degree, and salary range. Understanding these characteristics is crucial for contextualizing the research findings and assessing their representativeness and applicability to broader populations within the academic sector in China. These demographic results also help readers understand the background of contract lecturers in the sample and provide a basis for interpreting variations in perceived stress and commitment across different personal and career conditions.

Table 4.3: Demographic Characteristics of the Participants

Demographic Variable	Category	Frequency	Percent
Gender	Male	162	53.1%
	Female	143	46.9%
Age	20 to 30	72	23.6%
	31 to 40	85	27.9%
	41 to 50	94	30.8%
	50+	54	17.7%
Degree	Bachelors	160	52.5%
	Masters	91	29.8%
	Ph.D.	54	17.7%
Salary (RMB)	5000-10,000	74	24.3%
	11,000-15,000	92	30.2%
	16,000-20,000	83	27.2%
	21,000 +	56	18.4%

The sample exhibits a relatively balanced distribution between male and female participants, with males constituting 53.1% (162 individuals) and females comprising 46.9% (143 individuals). This near parity in gender distribution underscores the diversity of the academic workforce at the selected universities and allows for the exploration of gender perspectives in the study's context. The participants span a wide age range, reflecting the varied stages of academic careers present within the sample. Those aged 20 to 30 years old

account for 23.6% (72 individuals), indicating the presence of early career lecturers. The 31 to 40 age group represents 27.9% (85 individuals), while the 41 to 50 age group is the most represented at 30.8% (94 individuals), highlighting the significant contribution of mid-career professionals. Those aged over 50 years comprise 17.7% (54 individuals), reflecting the seasoned segment of the academic community.

The educational qualifications of the participants vary, with a majority holding Bachelor's degrees (52.5%, 160 individuals), followed by those with Master's degrees (29.8%, 91 individuals) and Ph.D. holders (17.7%, 54 individuals). This distribution reflects a broad academic attainment spectrum, underscoring the sample's diverse intellectual capital. Salary ranges among the participants indicate the economic diversity within the academic profession. Those earning between 5,000 and 10,000 (RMB) represent 24.3% (74 individuals) of the sample, while the 11,000 to 15,000 (RMB) range is the most common at 30.2% (92 individuals). Participants earning between 16,000 and 20,000 (RMB) account for 27.2% (83 individuals), and those with salaries exceeding 21,000 (RMB) make up 18.4% (56 individuals). These figures highlight the variability in financial remuneration among lecturers, potentially reflecting differences in rank, experience, and institutional policies. The demographic characteristics provide a comprehensive sample overview, illustrating a diverse group of participants across gender, age, degree, and salary. This diversity contributes to the overall research by showing that the findings are drawn from lecturers with different background conditions, which strengthens the interpretation of the structural relationships and improves the relevance of the results for contract lecturers working in applied undergraduate universities in Jiangsu Province.

4.5 Measurement Model Assessment

Figure 4.1 shows the research model, which captures the direct and moderating relationships among the proposed constructs. The model includes three independent variables: role ambiguity, conflict, and overload. Additionally, job stress is an independent and dependent variable, while affective commitment, normative commitment, and continuance commitment are the primary dependent variables. Job insecurity acts as a moderating variable within the model. In this study, Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to analyze reflective and formative measurement models while addressing the non-normal distribution of the data. For this purpose, WarpPLS 8.0 was utilized, leveraging its robust algorithms for handling composite and factor-based data in SEM. The analysis was conducted on 305 valid responses, providing comprehensive insights despite the dataset's non-normality.

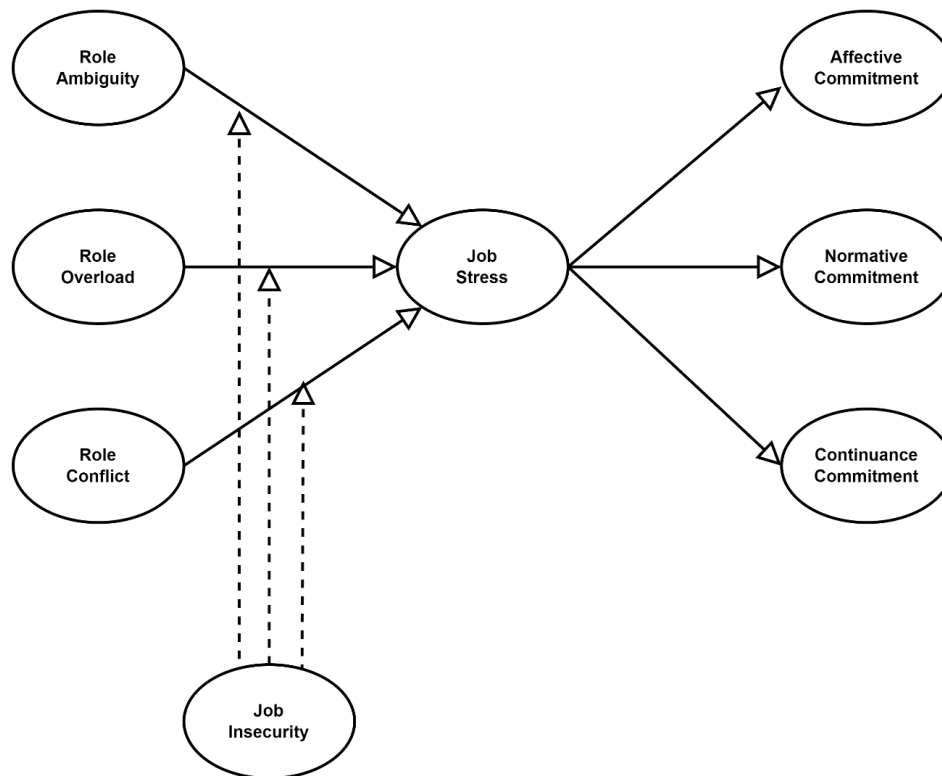


Figure 4.1: Research Model

The measurement model was evaluated for reliability, convergent, and discriminant validity using Confirmatory Factor Analysis (CFA). Item loadings above 0.70 were considered ideal (Chin, 1998; Hair et al., 2017). However, items with loadings between 0.40 and 0.70 were retained under specific conditions, as Henseler et al. (2009) suggested, while loadings above 0.50 were generally deemed acceptable (Gefen et al., 2000). Following the CFA, Composite Reliability (CR) was used to assess the internal consistency of the constructs. CR values exceeding the minimum threshold of 0.70 were deemed acceptable for moderate reliability (Fornell & Larcker, 1981; Hair et al., 2011).

Additionally, the Average Variance Extracted (AVE) was calculated to evaluate the variance explained by the constructs, with 0.50 or higher considered sufficient (Bagozzi & Yi, 1988). Constructs with CR values exceeding 0.60 were retained even if their AVE fell within the range of 0.40 to 0.50 (Fornell & Larcker, 1981). In this study, all items met the required loading, reliability, and validity thresholds, and no items were removed from the model. This ensured the retention of all constructs and items, preserving the comprehensiveness of the dataset and its representation of the study variables. Table 4.4 provides a detailed summary of the measurement model evaluation, confirming that the constructs meet the established criteria for reliability and validity.

Table 4.4: Results of the Measurement Model

Variables	Items	CR	AVE	Factor Loading
Role Ambiguity	RA1	0.962	0.807	0.894
	RA2			0.901
	RA3			0.905
	RA4			0.896
	RA5			0.902
	RA6			0.893
Role Overload	RO1	0.969	0.796	0.896
	RO2			0.906
	RO3			0.894
	RO4			0.881
	RO5			0.891
	RO6			0.889
	RO7			0.889
	RO8			0.892
Role Conflict	RC1	0.959	0.795	0.902
	RC2			0.889
	RC3			0.896
	RC4			0.887
	RC5			0.889
	RC6			0.887
Job Insecurity	J11	0.970	0.784	0.888
	J12			0.883
	J13			0.874
	J14			0.887
	J15			0.887
	J16			0.886
	J17			0.891
Job Stress	JS1	0.962	0.801	0.907
	JS2			0.881
	JS3			0.895
	JS4			0.897
	JS5			0.896
	JS6			0.893
	JS7			0.897
	JS8			0.894
Affective Commitment	AC1	0.960	0.800	0.882
	AC2			0.897
	AC3			0.891
	AC4			0.905
	AC5			0.891
	AC6			0.900
Normative Commitment	NC1	0.957	0.815	0.905
	NC2			0.900
	NC3			0.890
	NC4			0.912
	NC5			0.907
Continuance Commitment	CC1	0.958	0.822	0.910
	CC2			0.911
	CC3			0.913
	CC4			0.907
	CC5			0.891

4.5.1 Convergent Validity

Table 4.4 also systematically presents the CR, AVE, and factor loadings for each item within the constructs of role ambiguity, role overload, role conflict, job insecurity, job stress, affective commitment, normative commitment, and continuance commitment. For example, role ambiguity is evaluated with a CR of 0.923 and an AVE of 0.655, indicating a highly reliable construct that captures a significant portion of the variance in its items, evidenced by loading factors ranging from 0.801 to 0.825. These metrics underscore the robustness of the construct, ensuring its strong representation and reliability. Similarly, role overload demonstrates high reliability and validity, with a CR of 0.946 and an AVE of 0.636. The factor loadings, ranging from 0.794 to 0.820, further confirm the consistent representation of this construct in the dataset. role conflict, with a CR of 0.920 and an AVE of 0.648, maintains similar levels of reliability and validity, as indicated by item loadings between 0.787 and 0.814.

Job insecurity and job stress also reflect strong measurement reliability, with CR values of 0.941 and 0.942 and AVE values of 0.605 and 0.634, respectively. The loading factors for job insecurity range from 0.758 to 0.785, while job stress items show loadings between 0.762 and 0.810, highlighting the constructs' precise measurement and relevance to the study framework. Organizational commitment, affective, normative, and continuance commitment exhibit robust reliability and validity. Affective Commitment has a CR of 0.932 and an AVE of 0.651, with loadings between 0.781 and 0.825. Normative commitment shows a CR of 0.923 and an AVE of 0.681, with loadings from 0.796 to 0.832, while continuance commitment achieves a CR of 0.930 and an AVE of 0.689, with loadings ranging from 0.799 to 0.834. These metrics demonstrate the constructs' strong representation and ensure

comprehensive coverage within the study. Table 4.4 affirms the constructs' reliability and validity through CR and AVE metrics and demonstrates the constructs' distinctiveness and relevance in capturing the phenomena of interest. The high factor loadings across all items substantiate the constructs' robust representation within the study's framework, providing a solid foundation for subsequent analyses and interpretations.

4.5.2 Cross Loadings

The assessment of loadings and cross-loadings was conducted to evaluate the internal consistency of the measurement model (Chin, 2010; Lee & Chen, 2010). Internal consistency ensures that measurement items are reliable in representing their respective constructs. Various guidelines exist for determining acceptable loading values. Anderson and Gerbing (1988) proposed several thresholds, including the recommendation by Bagozzi et al. (1991) that loadings should exceed 0.50. Hair et al. (2006) suggested a minimum cut-off point of 0.60, while Hulland (1999) argued that loadings above 0.70 indicate strong internal consistency. For this study, the criterion Bagozzi et al. (1991) set was followed, ensuring all item loadings met or exceeded the threshold of 0.50. This approach confirmed the validity and internal consistency of the constructs. Table 4.5 presents the loadings and cross-loadings for all measurement items, highlighting that the constructs in the model satisfy the requirements for internal consistency and validity. These findings support the robustness of the measurement model, establishing a solid foundation for further analysis.

The results in Table 4.5 showcase the loadings and cross-loadings for the constructs: role ambiguity, role overload, role conflict, job insecurity, job stress, affective commitment, normative commitment, and continuance commitment. The primary loadings for all items

are well above the acceptable threshold of 0.70, confirming strong internal consistency and construct reliability. For instance, role ambiguity items (RA_1 to RA_6) exhibit loadings ranging from 0.801 to 0.825 on their respective construct, with much lower cross-loadings on other constructs, affirming discriminant validity. Similarly, role overload (RO_1 to RO_8) and Role Conflict (RC_1 to RC_6) items consistently load higher on their constructs (e.g., RO_2 = 0.906, RC_1 = 0.902) compared to their cross-loadings, ensuring clear construct boundaries.

Table 4.5: Loadings and Cross Loadings

Item(s)	RA	RO	RC	JI	JS	AC	NC	CC
RA_1	0.894	0.024	-0.012	-0.098	0.116	-0.024	-0.039	-0.023
RA_2	0.901	0.018	0.023	-0.02	0.019	-0.019	0.006	0.008
RA_3	0.905	-0.031	-0.035	0.198	-0.193	0.026	0.046	-0.050
RA_4	0.896	-0.013	0.055	-0.011	-0.033	0.029	-0.013	0.008
RA_5	0.902	0.006	-0.028	-0.326	0.275	0.006	0.001	0.059
RA_6	0.893	-0.003	-0.003	0.257	-0.185	-0.019	-0.039	-0.023
RO_1	-0.021	0.896	0.023	0.103	-0.154	-0.005	-0.001	-0.066
RO_2	0.020	0.906	-0.011	-0.248	0.278	-0.004	0.006	-0.010
RO_3	0.049	0.894	-0.031	-0.092	0.085	-0.009	-0.043	-0.016
RO_4	-0.020	0.881	0.023	0.337	-0.369	-0.008	0.014	0.030
RO_5	0.008	0.891	0.009	-0.153	0.156	0.087	0.003	0.005
RO_6	0.002	0.889	0.056	0.099	-0.064	-0.032	-0.058	0.008
RO_7	0.032	0.889	-0.036	-0.124	0.135	-0.029	0.028	-0.007
RO_8	-0.071	0.892	-0.032	0.084	-0.075	0.000	0.050	0.057
RC_1	-0.015	0.004	0.902	-0.108	0.095	-0.026	0.014	0.001
RC_2	0.016	0.044	0.889	0.215	-0.245	0.016	0.001	-0.007
RC_3	0.039	-0.035	0.896	-0.205	0.158	0.044	-0.011	0.067
RC_4	-0.026	0.005	0.887	0.309	-0.314	0.03	-0.013	-0.105
RC_5	-0.018	0.011	0.889	-0.105	0.178	-0.036	0.039	-0.012
RC_6	0.005	-0.029	0.887	-0.103	0.124	-0.029	-0.031	0.055
JI_1	-0.053	0.001	0.051	0.888	-0.222	0.010	0.046	-0.056
JI_2	0.051	-0.043	0.003	0.883	-0.214	-0.028	0.019	0.025
JI_3	-0.039	0.066	0.024	0.874	0.042	-0.011	-0.031	-0.035

Table 4.5: continued

Item(s)	RA	RO	RC	JI	JS	AC	NC	CC
JI_4	0.000	0.029	-0.007	0.887	0.309	-0.018	0.023	0.034
JI_5	0.005	-0.001	0.02	0.887	-0.058	0.045	-0.056	0.004
JI_6	0.019	-0.045	-0.063	0.886	0.313	-0.010	0.050	0.017
JI_7	0.017	-0.007	-0.029	0.891	-0.169	0.012	-0.050	0.010
JS_1	0.035	0.019	0.028	-0.046	0.907	-0.030	0.032	-0.062
JS_2	-0.005	0.016	-0.014	-0.237	0.881	0.020	-0.031	0.012
JS_3	-0.013	-0.030	0.057	-0.249	0.895	0.007	-0.064	0.027
JS_4	-0.015	-0.030	0.011	-0.219	0.897	0.002	-0.033	0.092
JS_5	-0.039	0.018	-0.003	0.359	0.896	-0.023	0.041	-0.082
JS_6	-0.015	0.055	-0.026	0.634	0.893	-0.030	0.059	-0.035
JS_7	0.030	-0.020	-0.069	-0.089	0.897	0.019	-0.028	-0.016
JS_8	0.022	-0.027	0.017	-0.153	0.894	0.036	0.024	0.064
AC_1	-0.024	0.027	0.022	-0.024	0.027	0.882	-0.044	0.013
AC_2	-0.019	-0.003	-0.014	-0.019	-0.003	0.897	-0.003	0.017
AC_3	0.026	0.006	-0.025	0.026	0.006	0.891	0.021	-0.001
AC_4	0.029	-0.052	0.026	0.029	-0.052	0.905	-0.011	-0.049
AC_5	0.006	0.018	0.024	0.006	0.018	0.891	0.034	0.012
AC_6	-0.019	0.004	-0.033	-0.019	0.004	0.900	0.003	0.008
NC_1	-0.039	0.022	-0.028	-0.039	0.022	-0.007	0.905	-0.012
NC_2	0.006	0.027	-0.025	0.006	0.027	0.057	0.900	-0.014
NC_3	0.046	-0.032	0.044	0.046	-0.032	0.008	0.890	-0.071
NC_4	-0.013	0.024	-0.02	-0.013	0.024	-0.032	0.912	0.010
NC_5	0.001	-0.042	0.030	0.001	-0.042	-0.026	0.907	0.085
CC_1	-0.023	-0.016	-0.030	-0.023	-0.016	0.002	0.003	0.910
CC_2	0.008	0.003	0.004	0.008	0.003	0.003	0.025	0.911
CC_3	-0.050	-0.002	-0.001	-0.05	-0.002	-0.031	0.008	0.913
CC_4	0.008	-0.007	0.000	0.008	-0.007	0.030	-0.007	0.907
CC_5	0.059	0.022	0.027	0.059	0.022	-0.004	-0.029	0.891

Note. RA: Role Ambiguity, RO: Role Overload, RC: Role Conflict, JI: Job Insecurity, JS: Job Stress, AC: Affective Commitment, NC: Normative Commitment, CC: Continuance Commitment.

Job insecurity items demonstrate primary loadings between 0.874 and 0.891, while job stress items range from 0.881 to 0.907, further confirming the reliability and distinctiveness of these constructs. Likewise, the organizational commitment dimensions,

affective, normative, and continuance commitment, display strong item loadings (e.g., AC_4 = 0.905, NC_5 = 0.907, CC_4 = 0.907), showcasing their robust representation. The low cross-loadings across unrelated constructs substantiate the discriminant validity of the measurement model. Overall, the findings in Table 4.5 validate the reliability and distinctiveness of the constructs, providing a strong foundation for further structural analysis.

4.5.3 Critical Value (t-value)

In this research, the significance of each measurement item was evaluated by calculating the t-values, as suggested by Komiak and Benbasat (2006). The t-value reflects the statistical significance of the loading factor for each item, indicating how well the item represents its respective construct. Higher t-values signify stronger relationships and greater reliability of the measurement items. The t-values were computed by dividing the loading factors by their respective standard errors, ensuring a robust assessment of each item's contribution to the model. The results of these calculations are summarized in Table 4.6, providing an overview of the statistical significance of each construct's measurement items.

Table 4.6: Results of the Model Constructs

Variables	Items Code	Loading Factor	Standard Error	t-Value
Role Ambiguity	RA1	0.894	0.053	17.939
	RA2	0.901	0.054	18.106
	RA3	0.905	0.055	18.206
	RA4	0.896	0.052	17.987
	RA5	0.902	0.053	18.117
	RA6	0.893	0.054	17.930
Role Overload	RO1	0.896	0.051	17.979
	RO2	0.906	0.052	18.210
	RO3	0.894	0.053	17.937
	RO4	0.881	0.050	17.647
	RO5	0.891	0.052	17.883
	RO6	0.889	0.051	17.820
	RO7	0.889	0.053	17.833
	RO8	0.892	0.052	17.895
Role Conflict	RC1	0.902	0.054	18.137
	RC2	0.889	0.052	17.836
	RC3	0.896	0.055	17.993
	RC4	0.887	0.053	17.786
	RC5	0.889	0.051	17.825
	RC6	0.887	0.052	17.781
Job Insecurity	J11	0.888	0.054	17.805
	J12	0.883	0.053	17.692
	J13	0.874	0.055	17.487
	J14	0.887	0.052	17.790
	J15	0.887	0.054	17.774
	J16	0.886	0.053	17.766
	J17	0.891	0.052	17.884
Job Stress	JS1	0.907	0.053	18.251
	JS2	0.881	0.052	17.652
	JS3	0.895	0.054	17.978
	JS4	0.897	0.053	18.005
	JS5	0.896	0.051	17.994
	JS6	0.893	0.052	17.911
	JS7	0.897	0.053	18.013
	JS8	0.894	0.052	17.953
Affective Commitment	AC1	0.882	0.051	17.673
	AC2	0.897	0.052	18.022
	AC3	0.891	0.053	17.865
	AC4	0.905	0.054	18.196
	AC5	0.891	0.052	17.864
	AC6	0.9	0.051	18.079
Normative Commitment	NC1	0.905	0.053	18.192
	NC2	0.9	0.054	18.083
	NC3	0.89	0.052	17.856
	NC4	0.912	0.055	18.367
	NC5	0.907	0.051	18.250
Continuance Commitment	CC1	0.91	0.054	18.308
	CC2	0.911	0.053	18.340
	CC3	0.913	0.051	18.388
	CC4	0.907	0.052	18.232
	CC5	0.891	0.054	17.874

4.5.4 Discriminant Validity

To assess discriminant validity, the AVE square root was compared with the constructs' intercorrelations, following the guidelines of Chin (2010). As shown in Table 4.7, the diagonal values (square roots of AVEs) exceed the off-diagonal correlations, confirming the model's discriminant validity (Fornell & Larcker, 1981). Specifically, the square root of AVE for role ambiguity was 0.899, while role overload was recorded as 0.892, followed by role conflict with 0.892. Job insecurity and Job Stress exhibited AVEs of 0.885 and 0.895, respectively. Affective, normative, and continuance commitment also showed AVE square roots of 0.894, 0.903, and 0.906, respectively. These results demonstrate that each construct is distinct and reliably measured, further validating the robustness of the measurement model.

Table 4.7: Discriminant Validity

	RA	RO	RC	JI	JS	AC	NC	CC
RA	0.899							
RO	0.244	0.892						
RC	0.271	0.279	0.892					
JI	0.275	0.244	0.249	0.885				
JS	0.268	0.241	0.255	0.367	0.895			
AC	0.217	0.254	0.254	0.250	0.256	0.894		
NC	0.207	0.295	0.245	0.290	0.290	0.308	0.903	
CC	0.261	0.279	0.257	0.294	0.284	0.224	0.271	0.906

Note. The diagonal values indicate the Average Variance Extracted (AVE) square root, while the off-diagonal values represent the correlations between constructs.

The analysis of Table 4.7 confirms the discriminant validity of the constructs using the Fornell-Larcker criterion. The square roots of the AVEs for each construct exceed their inter-construct correlations, indicating that the constructs are distinct and measure unique

aspects of the theoretical framework. For instance, the square root of AVE for role ambiguity (0.899) is higher than its correlations with other constructs, such as role overload (0.244) and job insecurity (0.275). Similarly, role overload, with an AVE of 0.892, demonstrates greater internal reliability than its correlations with role conflict (0.279) and job stress (0.241). The same pattern is observed across other constructs, including job stress (0.895) and organizational commitment dimensions, such as affective commitment (0.894), normative commitment (0.903), and continuance commitment (0.906). These results confirm that all constructs in the model satisfy the discriminant validity requirement, ensuring they are well-defined and do not overlap significantly with other variables. This establishes a strong foundation for subsequent structural analyses.

4.5.5 Results of the Reliability Test

To ensure the reliability of the research constructs, a reliability test was conducted using Cronbach's alpha, a widely recognized measure of internal consistency. Cronbach's alpha measures how closely a set of items is related as a group, indicating the scale's reliability. Previous studies, such as those by Cronbach (1951) and Nunally and Bernstein (1978), have recommended a minimum threshold of 0.70 for Cronbach's alpha to confirm acceptable reliability. Constructs meeting or exceeding this value are considered reliable for research purposes. The computed Cronbach's alpha values for all constructs in this study are presented in Table 4.8, confirming the robustness and consistency of the measurement scales. This validation underscores the reliability of the constructs, ensuring they effectively capture the intended dimensions of the study.

Table 4.8: Reliability Test Results

Variables	Item Codes	Cronbach's Alpha	Loadings	Number of Items
Role Ambiguity	RA1 RA2 RA3 RA4 RA5 RA6	0.952	0.893-0.905	6(6)
Role Overload	RO1 RO2 RO3 RO4 RO5 RO6 RO7 RO8	0.963	0.881-0.906	8(8)
Role Conflict	RC1 RC2 RC3 RC4 RC5 RC6	0.949	0.887-0.902	6(6)
Job Insecurity	JI1 JI2 JI3 JI4 JI5 JI6 JI7	0.954	0.874-0.891	7(7)
Job Stress	JS1 JS2 JS3 JS4 JS5 JS6 JS7 JS8	0.965	0.881-0.907	8(8)
Affective Commitment	AC1 AC2 AC3 AC4 AC5 AC6	0.950	0.882-0.905	6(6)
Normative Commitment	NC1 NC2 NC3 NC4 NC5	0.943	0.890-0.907	5(5)
Continuance Commitment	CC1 CC2 CC3 CC4 CC5	0.946	0.891-0.913	5(5)

4.6 Structural Model Assessment

The measurement model's reliability, convergent validity, and discriminant validity were validated through confirmatory factor analysis (CFA). These preliminary results indicated that the measurement model met satisfactory thresholds, making it suitable for further structural analysis and hypothesis testing. Several statistical methods were employed to evaluate the hypotheses. These included computing regression weights, R-squared (R^2) values to assess the strength of exogenous-endogenous relationships, and average variance accounted for (AVA) to measure overall model fit. Additionally, hypothesis testing incorporated bootstrapped critical ratios (t-values) and p-values for statistical significance (Fornell & Larcker, 1981; O'Cass, 2002; Cramer & Howitt, 2004). A hypothesis was considered supported if the R^2 value exceeded 0.10 (Falk & Miller, 1992), and the p-value met the threshold of < 0.05 (t-value > 1.645) for significance at the 95% confidence level or p-value < 0.01 (t-value > 2.33) for significance at the 99% confidence level, particularly in one-tailed testing scenarios (O'Cass & Grace, 2003; Gelman, 2012).

Furthermore, as suggested by Chin (1998), the strength of the independent variables in explaining the variance of the dependent variables was measured using effect size (f^2). Effect sizes were categorized as small (0.02), medium (0.15), or large (0.35) according to Cohen's (1988) guidelines. Reporting both effect size and t-values provides robust evidence of significant relationships between variables, ensuring a comprehensive interpretation of the model's predictive power (Hair et al., 2017). Variance Inflation Factor (VIF) values were also calculated to address potential multicollinearity issues. VIF values below the threshold of 10 were ensured, confirming the absence of multicollinearity concerns among the

constructs (Bock et al., 2005). This step further validated the robustness of the structural model.

4.6.1 Coefficient of Determination (R^2)

Prior to hypotheses testing, the coefficient of determination (R^2) was calculated to assess the explanatory power of the model and determine whether it could be categorized as substantial, moderate, or weak, following the guidelines of Cohen (1988) and Hair et al. (2013). The R^2 value for the primary dependent variable, job stress, was found to be 0.778, indicating a substantial level of variance explained by the three independent variables: role ambiguity, role overload, and role conflict. The secondary dependent variables, affective commitment, normative commitment, and continuance commitment were evaluated. The R^2 values were 0.592 (substantial) for affective commitment, 0.331 (moderate) for normative commitment, and 0.351 (moderate) for continuance commitment, demonstrating the predictive power of job stress in explaining these constructs. The detailed R^2 values for each dependent variable are presented in Table 4.9, confirming the robustness of the model in capturing the relationships among the constructs.

Table 4.9: R-squared (R^2) Values

Construct(s)	R-squared Value	Interpretation
Job Stress	0.778	Substantial
Affective Commitment	0.592	Substantial
Normative Commitment	0.331	Moderate
Continuance Commitment	0.353	Moderate

4.6.2 Predictive Relevance (Q²)

The predictive relevance of the model was evaluated by calculating Q² values for the dependent variables. Following Hair et al. (2016), a Q² value greater than zero indicates the model has predictive relevance for the given constructs. In this study, the Q² value for the primary dependent variable, job stress, was 0.736, demonstrating that the independent variables, role ambiguity, role overload, and role conflict, contribute to predicting Job Stress with substantial relevance. For the secondary dependent variables, affective, normative, and continuance commitment, the Q² values were 0.592, 0.330, and 0.352, respectively. These values indicate that the primary dependent variable, Job Stress, has predictive relevance for these constructs. The summary of Q² values for all dependent variables is provided in Table 4.10, confirming the model's strong predictive capability across all levels.

Table 4.10: Q-squared (Q²) Values

Construct(s)	Q-squared Value	Interpretation
Job Stress	0.736	Substantial
Affective Commitment	0.592	Substantial
Normative Commitment	0.330	Moderate
Continuance Commitment	0.352	Moderate

4.6.3 Results of Path Analysis (Direct Effect)

The path analysis results for various hypotheses, examining the relationships between Role Ambiguity, Role Overload, Role Conflict, Job Stress, Affective Commitment, Normative Commitment, and Continuance Commitment, along with the moderating effect of Job Insecurity, are presented in Table 4.11 and Table 4.12. Each hypothesis explores a different aspect of these relationships within the organization's academic context.

The direct effects path analysis results, summarized in Table 4.11, illustrate the relationships among key variables, including role ambiguity, role overload, role conflict, job stress, affective commitment, normative commitment, and continuance commitment. Additionally, job insecurity, the moderating variable of the study, is also reflected in the analysis. Figure 4.2 visualizes the research model, illustrating the path coefficients, t-values, and p-values, providing a concise overview of the tested relationships and their statistical significance.

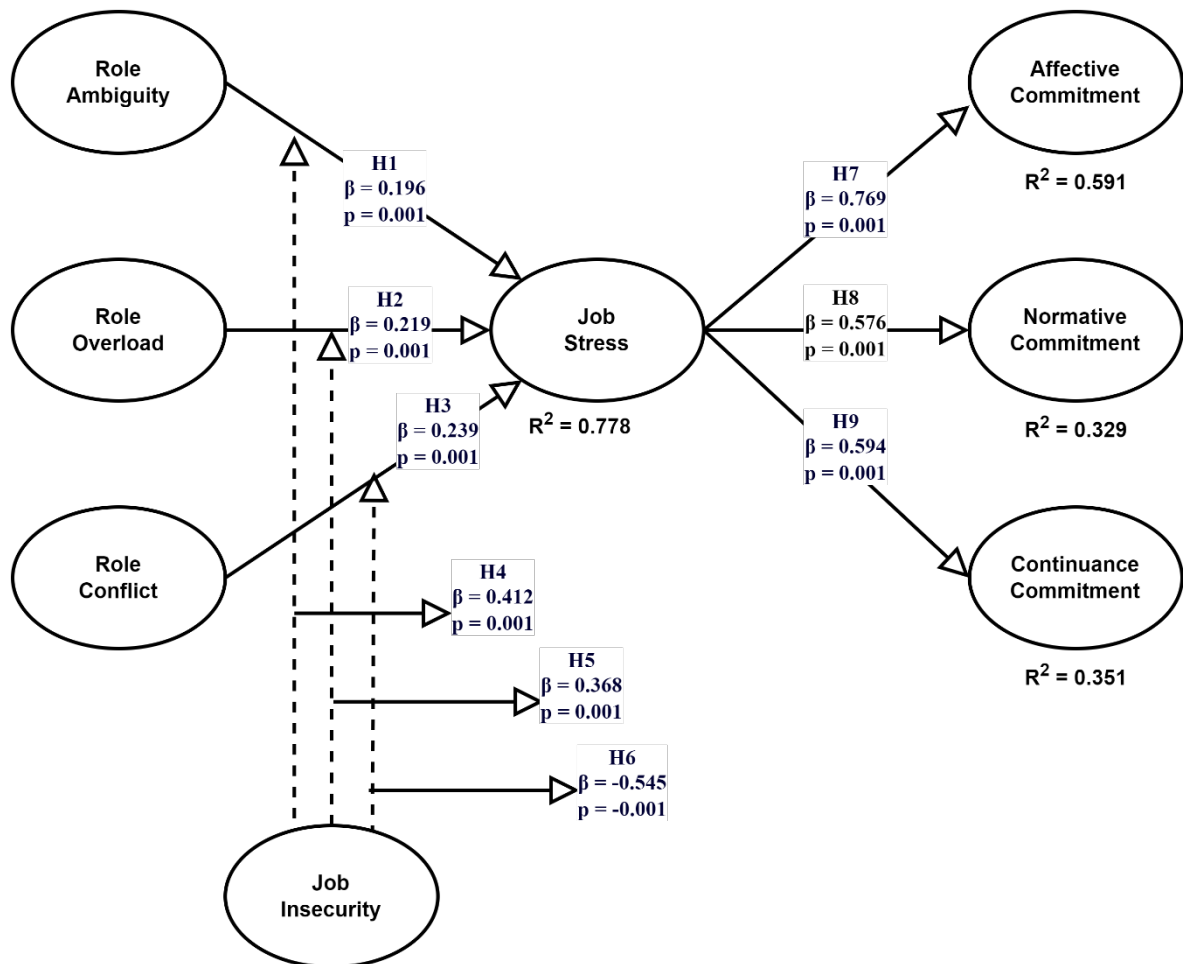


Figure 4.2: Path Analysis of Structural Model

Table 4.11: Hypotheses Testing Results (Direct Effects)

Hypothesis	Relationship	β	Std. Error	t-value	p-value	Decision	VIF	f ²
H1	Role Ambiguity → Job Stress	0.196	0.056	3.526	.001**	Supported	1.250	0.125
H2	Role Overload → Job Stress	0.219	0.055	2.951	.002**	Supported	1.271	0.115
H3	Role Conflict → Job Stress	0.239	0.055	3.117	.001**	Supported	1.247	0.102
H7	Job Stress → Affective Commitment	0.769	0.051	15.148	.001**	Supported	1.267	0.156
H8	Job Stress → Normative Commitment	0.576	0.052	10.998	.001**	Supported	1.335	0.172
H9	Job Stress → Continuance Commitment	0.594	0.052	11.378	.001**	Supported	1.286	0.168

Note. * $p < .05$, ** $p < .01$

4.6.3.1 Role Ambiguity and Job Stress

The relationship between role ambiguity and job stress was examined in Hypothesis 1. The results indicate a significant positive effect of role ambiguity on Job Stress ($\beta = 0.196$; $p < 0.001$), confirming that higher levels of role ambiguity are strongly associated with increased job stress. Thus, H1 is supported, validating the hypothesized positive relationship between these variables.

4.6.3.2 Role Overload and Job Stress

The relationship between role overload and job stress was examined in Hypothesis 2 (H2). The results reveal a significant positive impact of role overload on job stress ($\beta = 0.219$; $p < 0.001$), indicating that increased role overload contributes to higher levels of Job Stress.

These findings emphasize the detrimental effect of excessive work demands on employees' mental well-being, supporting the hypothesis that role overload substantially contributes to Job Stress. Thus, H2 is supported.

4.6.3.3 Role Conflict and Job Stress

Hypothesis 3 (H3) evaluates the impact of role conflict on job stress. The findings indicate a significant positive relationship between role conflict and job stress ($\beta = 0.239$; $p < 0.001$), demonstrating that conflicting demands in the workplace significantly increase Job Stress levels. This outcome highlights the disruptive influence of role conflict on employees' ability to manage their responsibilities effectively, aligning with the hypothesized relationship. As a result, H3 is supported.

4.6.3.4 Job Stress and Affective Commitment

Hypothesis 7 (H7) proposed a positive relationship between job stress and affective commitment. The results confirm this hypothesis, revealing a significant positive association ($\beta = 0.769$; $p < 0.001$). This finding indicates that higher levels of job stress are linked with increased affective commitment, suggesting that employees experiencing heightened stress may develop a stronger emotional attachment and loyalty to their organization. These results align with the hypothesized relationship, providing strong support for H7.

4.6.3.5 Job Stress and Normative Commitment

Hypothesis 8 (H8) examined the relationship between job stress and normative commitment, proposing a positive association. The results support this hypothesis, revealing

a significant positive effect of job stress on normative commitment ($\beta = 0.576$; $p < 0.001$). This finding indicates that higher levels of job stress are associated with an increased sense of obligation among employees to remain with their organization. These results validate the hypothesized relationship, confirming that job stress positively influences normative commitment, supporting H8.

4.6.3.6 Job Stress and Continuance Commitment

Hypothesis 9 (H9) assessed the relationship between job stress and continuance commitment, hypothesizing a positive linkage. The analysis confirms this hypothesis, revealing a significant positive relationship between job stress and continuance commitment ($\beta = 0.594$; $p < 0.001$). This result suggests that higher levels of job stress contribute to an increased perception of the costs associated with leaving the organization, strengthening continuance commitment. These findings align with the proposed hypothesis, providing strong support for H9.

4.6.4 Results of Path Analysis (Moderating Effect)

Job insecurity was hypothesized to moderate the relationships between role ambiguity and job stress, role overload and job stress, and role conflict and job stress. This moderation analysis directly addresses (RQ3), which asks whether job insecurity changes the strength of the relationships between role stressors and job stress among contract-based university lecturers. In other words, RQ3 focuses on whether the effect of role ambiguity, role overload, and role conflict on job stress becomes stronger or weaker when lecturers feel

more insecure about their jobs. The results of these moderation tests are presented in Table 4.12.

Table 4.12: Hypotheses Testing Results (Moderating Effects)

Hypothesis	Relationship	β	Std. Error	t-value	p-value	Decision	VIF	f ²
H4	Role Ambiguity $\times$ Job Insecurity $\rightarrow$ Job Stress	0.412	0.054	7.669	.000**	Supported	1.591	0.134
H5	Role Overload $\times$ Job Insecurity $\rightarrow$ Job Stress	0.368	0.054	6.799	.001**	Supported	1.641	0.089
H6	Role Conflict $\times$ Job Insecurity $\rightarrow$ Job Stress	0.545	0.053	10.355	.001**	Supported	1.531	0.078

Note. * $p < .05$, ** $p < .01$

4.6.4.1 Job Insecurity as a Moderator between Role Ambiguity and Job Stress

Hypothesis 4 (H4) examined the moderating effect of job insecurity on the relationship between role ambiguity and job stress. The results reveal a significant positive moderating effect ($\beta = 0.412$; $t = 7.669$; $p < 0.001$), indicating that job insecurity reduces the impact of role ambiguity on job stress. This suggests that the positive relationship between role ambiguity and job stress strengthens as job insecurity increases. Consequently, H4 is supported, emphasizing the moderating influence of job insecurity on this relationship.

Figure 4.3 visually represents the moderating effect of job insecurity on the relationship between role ambiguity and job stress.

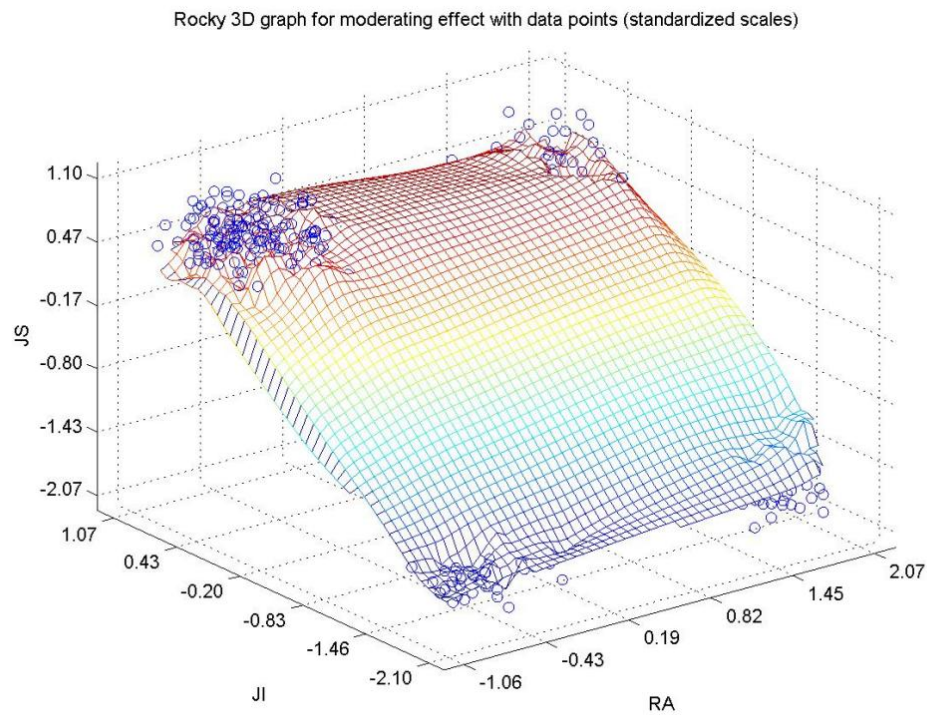


Figure 4.3: Moderating Effect of Job Insecurity on Role Ambiguity and Job Stress

The graph illustrates the interaction effect of role ambiguity and job insecurity on job stress. The sloping surface suggests that the relationship between role ambiguity and job stress changes depending on job insecurity. Specifically, as job insecurity increases (moving along the JI axis), the impact of role ambiguity on job stress diminishes, reflecting the significant positive moderating effect identified in the hypothesis ($\beta = 0.412$). This interaction effect aligns with the statistical findings, showing that the relationship between role ambiguity and job stress is stronger at higher levels of job insecurity, as indicated by the flatter slope in those regions. This visual effectively complements the hypothesis results by highlighting how the interaction shapes the outcomes in a three-dimensional space, providing additional clarity to the significant moderating role of job insecurity.

4.6.4.2 Job Insecurity as a Moderator between Role Overload and Job Stress

Hypothesis 5 (H5) evaluated whether job insecurity moderates the relationship between role overload and job stress. The analysis reveals a significant positive moderating effect ($\beta = 0.368$; $t = 6.799$; $p < 0.01$), indicating that job insecurity strengthens the positive relationship between role overload and job stress. This finding suggests that at higher levels of job insecurity, the impact of role overload on job stress is reduced. Consequently, H5 is supported, emphasizing the critical role of job insecurity in influencing how role overload leads to job stress.

Figure 4.4 visually represents the moderating effect of job insecurity on the relationship between role overload and job stress for H5.

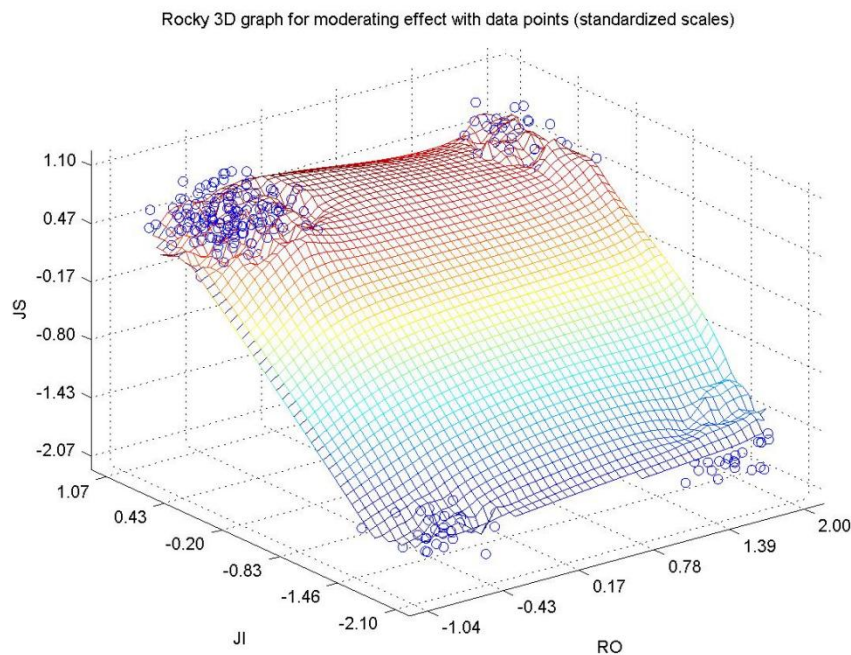


Figure 4.4: Moderating Effect of Job Insecurity on Role Overload and Job Stress

The graph demonstrates how role overload interacts with job insecurity to influence job stress. The sloping surface indicates that different levels of job insecurity affect the relationship between role overload and job stress. Specifically, as job insecurity increases (moving along the JI axis), the positive effect of role overload on job stress strengthens, which corresponds to the significant positive moderating effect ($\beta = 0.368$; $t = 6.799$; $p < 0.01$) identified in the analysis. This is evidenced by the flattening of the slope in the regions of high job insecurity, illustrating that Job Insecurity dampens the effect of role overload on job stress. This visual aligns with the statistical findings, providing a clear, graphical representation of the moderating role of job insecurity. It reinforces that the impact of role overload on job stress diminishes as job insecurity increases, thereby supporting H5.

4.6.4.3 Job Insecurity as a Moderator between Role Conflict and Job Stress

Hypothesis 6 (H6) examined whether job insecurity moderates the relationship between role conflict and stress. The analysis revealed a significant positive moderating effect ($\beta = 0.545$; $t = 10.355$; $p < 0.01$), indicating that job insecurity strengthens the positive relationship between role conflict and job stress. This suggests that at higher levels of job insecurity, the impact of role conflict on job stress is magnified. Consequently, H6 is supported, emphasizing job insecurity's critical role in intensifying the effect of role conflict on job stress.

Figure 4.5 visually represents the moderating effect of job insecurity on the relationship between role conflict and job stress for H6.

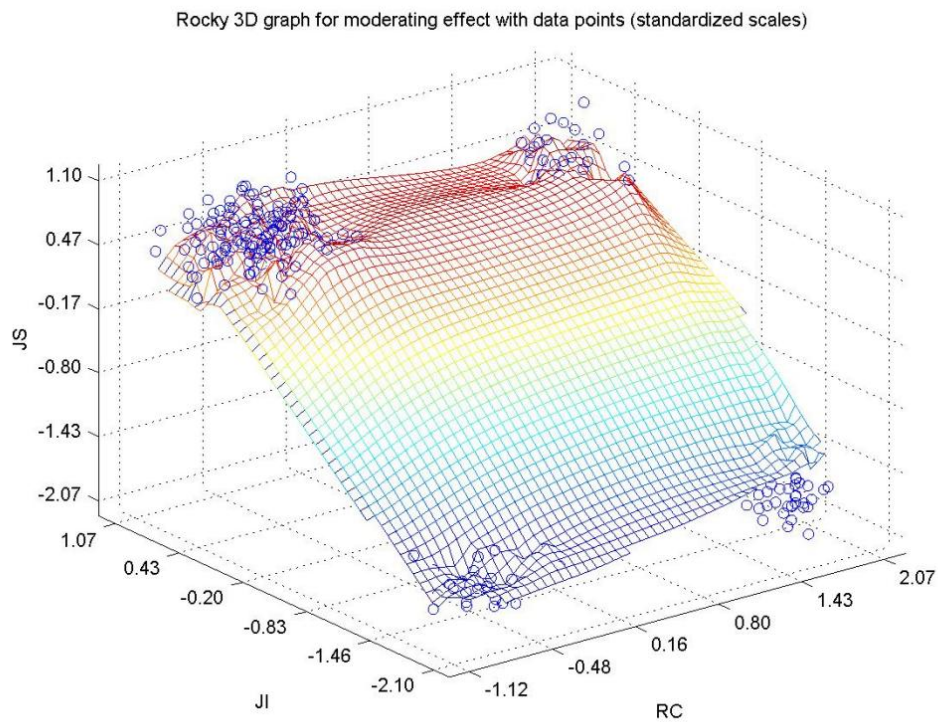


Figure 4.5: Moderating Effect of Job Insecurity on Role Conflict and Job Stress

The graph demonstrates how role conflict interacts with job insecurity to influence stress. The sloping surface shown in the 3D graph indicates that different levels of job insecurity influence the relationship between role conflict and job stress. Specifically, as job insecurity increases (moving along the JI axis), the positive effect of role conflict on job stress strengthens. The graph visually aligns with the statistical findings, where the steepening of the slope represents the strengthening of the relationship between role conflict and job stress as Job Insecurity increases. This supports the statistical results ($\beta = 0.545$; $t = 10.355$; $p < 0.01$), reinforcing the moderating role of job insecurity as shown in Table 4.13. It shows that as Job Insecurity rises, the effect of role conflict on job stress becomes more pronounced, indicating a heightened stress response under conditions of high role conflict for individuals facing greater insecurity.

Table 4.13: Summary of All Hypotheses Testing Results

Hypothesis	Relationship	Result
H1	Role Ambiguity → Job Stress	Supported
H2	Role Overload → Job Stress	Supported
H3	Role Conflict → Job Stress	Supported
H4	Role Ambiguity × Job Insecurity → Job Stress	Supported
H5	Role Overload × Job Insecurity → Job Stress	Supported
H6	Role Conflict × Job Insecurity → Job Stress	Supported
H7	Job Stress → Affective Commitment	Supported
H8	Job Stress → Normative Commitment	Supported
H9	Job Stress → Continuance Commitment	Supported

4.7 Chapter Summary

All in all, sufficient evidence regarding reliability, convergent validity, and discriminant validity was established to proceed with hypothesis testing in this study. As proposed, the findings supported all nine hypotheses, demonstrating significant relationships and moderating effects. These included positive associations between role stressors (role ambiguity, role overload, and role conflict) and job stress, as well as the influence of job stress on the dimensions of organizational commitment (affective, normative, and continuance commitment). Additionally, the moderating role of job insecurity was confirmed in the relationships between role ambiguity and job stress, role overload and job stress, and role conflict and job stress. This suggests that job insecurity amplifies the effects of role ambiguity, role overload, and role conflict. These results highlight the robustness of the proposed model in explaining the relationships among role stressors, job stress, job insecurity, and organizational commitment. The implications of these findings and their theoretical and practical significance are further discussed in the next chapter.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.1 Overview

The previous chapter presented the statistical results on the relationships among role stressors, job stress, job insecurity, and organizational commitment among Chinese contract-based university lecturers. Chapter 5 explains these results and links them back to the research questions and hypotheses. The aim is not to repeat the numerical values, but to explain what the findings mean in the academic work setting of Jiangsu Province and why these patterns may appear under contract-based employment.

To improve clarity and flow, the discussion is organized using the research questions. Research Question 1 examines whether role ambiguity, role overload, and role conflict increase job stress, which directly links to H1, H2, and H3. Research Question 2 examines whether job stress predicts affective, normative, and continuance commitment, addressing H7, H8, and H9. Research Question 3 examines whether job insecurity alters the strength of the relationships between role stressors and job stress, corresponding to H4, H5, and H6. This order follows the logic of the proposed model: first, identifying the main sources of stress; second, explaining how stress relates to different forms of commitment; and third, showing how job insecurity intensifies the stress process for contract-based lecturers.

Based on these discussions, the chapter then highlights what the findings add to theory and what they suggest for university management and policy in supporting contract-based lecturers. It also clarifies the main limits of the study and outlines practical directions for future research to strengthen the design and test the model in other settings. The chapter

concludes by summarizing the study's main message and its value for understanding stress and commitment in higher education employment systems.

5.2 Discussion

The current study has highlighted the dynamic and multifaceted nature of the academic environment in China, particularly in how it contributes to stress and organizational commitment among contract-based university lecturers. The results reveal that role stressors, namely role ambiguity, role overload, and role conflict, significantly contribute to job stress. This is in line with well-established occupational stress theories, such as Shagirbasha et al. (2024) role theory, which posits that role ambiguity and conflict arise from unclear or conflicting expectations, leading to increased strain on individuals. Similarly, role overload occurs when the demands on individuals exceed their capacity to perform, adding further pressure. For contract-based lecturers, these stressors are exacerbated by the inherent uncertainties in their employment status, leading to increased job stress and affecting their commitment to their institutions.

The academic environment for lecturers in China is unique due to several structural factors, including the widespread use of contract-based employment, intense pressure to publish, and balancing multiple roles such as teaching, research, and administrative duties. Contract-based lecturers, in particular, face heightened insecurity regarding their employment status, making them more vulnerable to the adverse effects of role stressors. The uncertainty surrounding contract renewals, career progression, and job insecurity means these lecturers may experience more significant anxiety than their tenured counterparts, as they are often more precarious (Oddo et al., 2024; Sverke et al., 2002). This context

exacerbates the impact of role ambiguity, overload, and conflict on job stress, as the uncertainty around future employment amplifies the stressors already present in their roles.

Role ambiguity, in particular, is a salient issue in academic settings where expectations regarding teaching quality, research output, and administrative responsibilities may not always be communicated. Contract-based lecturers may struggle with vague job descriptions or unclear guidelines about success in their roles, contributing to heightened stress levels (Beehr & Bhagat, 1985; Mueller et al., 2024). In the Chinese higher education system, this issue is compounded by the evolving nature of the academic profession, where institutions increasingly emphasize research output, leaving contract-based lecturers uncertain about how to prioritize their tasks. This ambiguity can lead to significant job stress as lecturers try to navigate their responsibilities without clear benchmarks for performance.

Role overload is another significant stressor, as lecturers must juggle many responsibilities that stretch their capacity to meet institutional demands. The pressure to publish research, secure funding, and fulfil teaching duties creates an overwhelming workload for many academic staff (Si, 2024; Winefield et al., 2003). This overload is particularly stressful for contract-based lecturers because they may feel compelled to take on additional tasks to prove their worth and secure contract renewals. The fear of being perceived as underperforming adds another layer of stress, as contract-based employees are often evaluated more rigorously than their tenured counterparts.

Role conflict, where conflicting demands are placed on lecturers by different stakeholders (e.g., administrators, students, and departmental heads), also contributes to job stress. Contract-based lecturers, in particular, may feel torn between meeting the demands of their teaching roles, which often require extensive interaction with students, and their

research roles, which demand time and focus on academic outputs. This dual expectation creates a problematic conflict, especially when teaching and research are critical to securing future employment. The conflicting nature of these roles can cause significant strain, as lecturers cannot satisfy the competing demands placed upon them (Blix et al., 1994; Kim & Maijan, 2024).

The cumulative effect of these role stressors, ambiguity, overload, and conflict, on job stress is evident in the data, which confirms that these factors significantly contribute to the overall stress levels experienced by contract-based lecturers in China. What makes this situation particularly concerning is the ripple effect of job stress on organizational commitment. Stressful working conditions can lead to emotional exhaustion and burnout, adversely affecting lecturers' loyalty and attachment to their institutions (Bhatti et al., 2022; Gillespie et al., 2001). Organizational commitment is a critical factor in determining job satisfaction, retention, and overall performance, making it essential for institutions to address these stressors proactively.

Moreover, the relationship between role stressors and job stress is not just a matter of individual well-being but also impacts the broader organizational climate. High levels of job stress among lecturers can reduce job performance, lower job satisfaction, and contribute to an adverse organizational culture (Jex et al., 1992; Kim & Maijan, 2024). In the context of higher education, where the quality of teaching and research directly influences institutional success, the stakes are exceptionally high. If contract-based lecturers are consistently overwhelmed by role-related stress, their ability to contribute meaningfully to their institutions may be compromised, ultimately affecting their reputation and performance.

In summary, this study's findings underscore the importance of addressing role ambiguity, overload, and conflict to mitigate job stress among contract-based university lecturers in China. When left unchecked, these stressors not only harm lecturers' well-being but also undermine their organizational commitment, which is essential to the long-term success of higher education institutions. Academic institutions can improve employee well-being and institutional performance by recognizing the unique challenges faced by contract-based lecturers and implementing targeted interventions to reduce these stressors.

5.2.1 Research Question 1: Do Role Stressors (i.e., Role Ambiguity, Role Overload, and Role Conflict) Affect Job Stress Among Chinese Contract-Based University Lecturers?

This section addresses Research Question 1 by discussing the findings related to H1, H2, and H3. These hypotheses test whether expectations of role ambiguity, role overload, and role conflict increase job stress among contract-based lecturers. The results support all three hypotheses. This means that job stress in this sample is not random. It is closely connected to how lecturers understand their roles, how much work they carry, and how often they face incompatible demands. After establishing this overall pattern, the discussion below explains each role stressor separately and clarifies why it increases stress in the contract-based academic context.

H1 posits that role ambiguity significantly impacts job stress, suggesting that unclear job expectations are a significant source of anxiety for contract-based lecturers. The findings support this hypothesis, aligning with broader literature on occupational stress, consistently identifying role ambiguity as a key contributor to heightened job-related anxiety (Baraldi et al., 2023; Beehr & Bhagat, 1985; Tubre & Collins, 2000). Role ambiguity refers to the lack of clarity in employees' work expectations, which can create confusion, frustration, and job

stress (Mwakyusa & Mcharo, 2024). In the context of contract-based positions, this ambiguity is often more pronounced due to the transient nature of employment contracts, which typically lack clear guidelines regarding job roles, promotion prospects, and the renewal of contracts (De Cuyper & De Witte, 2005; Sverke et al., 2002; Wu et al., 2022). Consequently, lecturers in these positions are more likely to experience more significant uncertainty and instability, exacerbating their job stress.

The lack of clearly defined expectations can leave contract-based lecturers in constant anxiety, unsure whether they meet institutional standards or fulfil the requirements necessary for contract renewal (Hook, 2023; Probst, 2003). This uncertainty complicates day-to-day tasks and generates a broader sense of insecurity regarding future employment, as contract renewal is often contingent upon meeting ambiguous or conflicting performance criteria (Cheng & Chan, 2008; Sverke et al., 2002). This finding echoes the work of Herman et al. (2023) and Mwakyusa and Mcharo (2024), who identified role ambiguity as a significant contributor to stress in academic environments, where the complexity of job responsibilities, including teaching, research, and administrative duties, often lacks clear boundaries.

Academic staff, especially those in contract-based roles, frequently face competing priorities and unclear expectations, leading to heightened stress (Odengo, 2023; Winefield et al., 2003). Contract-based lecturers often must balance multiple roles without clearly understanding what is prioritized, adding to their frustration and stress levels (Giauque et al., 2013; Wu, 2024). The absence of structured frameworks for success in teaching, research, and administrative duties amplifies this stress, as lecturers may struggle to allocate their efforts effectively (Bakker et al., 2005). This further aligns with previous research suggesting

that role ambiguity can lead to emotional exhaustion and burnout, particularly in high-demand professions like academia (Maslach & Leiter, 2008; Taris, 2006).

Moreover, role ambiguity heightens stress and adversely impacts job satisfaction and well-being (Bliese & Castro, 2000; Tubre & Collins, 2000). When lecturers are unclear about their responsibilities, they are less likely to experience a sense of accomplishment or satisfaction (Uyeri, 2024). This lack of clarity can erode their confidence in their abilities and diminish their overall job satisfaction, which may reduce motivation and performance over time (Giauque et al., 2013). The emotional toll of ambiguity is particularly evident in contract-based roles, where job insecurity adds a layer of stress (Cheng & Chan, 2008; Sverke et al., 2002). Without clear contract renewal or promotion guidelines, these lecturers remain uncertain about their long-term career prospects, compounding the anxiety caused by ambiguous job expectations (Probst, 2003).

The findings of this study align with earlier research indicating that role ambiguity is a pervasive issue in academic settings and a critical factor in job stress (Gillespie et al., 2001; Winefield et al., 2003). Addressing this issue requires clear communication, structured role definitions, and regular supervisor feedback. Research suggests that providing such clarity can help alleviate the stress associated with ambiguity, improve job satisfaction, and enhance overall well-being (Antoniou et al., 2003; Bliese & Castro, 2000; Szromek & Wolniak, 2020). In particular, institutions can reduce ambiguity by implementing structured onboarding processes, offering transparent criteria for performance evaluations, and establishing clear guidelines for contract renewals (Cuyper et al., 2008; Odengo, 2023).

Additionally, providing professional development opportunities, such as training in time management, conflict resolution, and balancing multiple roles, could further reduce the

stress caused by role ambiguity (Maden-Eyiusta, 2021; Taris, 2006). Equipping lecturers with the tools to navigate their responsibilities more effectively would mitigate stress and enhance their sense of control and competence, leading to greater job satisfaction (Bakker et al., 2005; Szromek & Wolniak, 2020). Furthermore, institutions could foster a more supportive work environment by offering mentorship programs or peer support networks to help lecturers manage the demands of their roles and reduce feelings of isolation (Maslach & Leiter, 2008; Ueno et al., 2024).

Finally, this study reaffirms that role ambiguity significantly impacts job stress, particularly for contract-based lecturers. Clear communication and structured role definitions are essential for reducing the anxiety associated with ambiguity and improving the well-being of academic staff. By addressing these issues, academic institutions can create a more supportive, less stressful work environment, ultimately enhancing job satisfaction, reducing burnout, and improving performance among their lecturers.

Similarly, H2 proposes that role overload significantly contributes to job stress, a finding supported by this study. In an academic environment, lecturers are expected to balance multiple responsibilities, including teaching, research, administrative duties, and student mentoring, often resulting in overwhelming pressure due to time and resource constraints (Jin et al., 2024; Winefield et al., 2003). This phenomenon is well documented in the literature, where role overload refers to situations in which the demands placed on employees exceed their ability to manage them effectively (Antonioni et al., 2003; Bakker et al., 2005; Beehr et al., 1976; Yunus et al., 2023). The consequences of role overload are particularly pronounced in high-pressure professions such as academia, where lecturers are

required to engage in cognitively demanding and emotionally taxing tasks (Bakker et al., 2008; Jamal, 1985; Suttles, 2024).

For contract-based lecturers, role overload is often exacerbated by their precarious employment status, which adds to the already significant stress of balancing numerous professional obligations. Research by (Dupret & Pultz, 2021; Sverke et al., 2002) has shown that job insecurity amplifies the effects of role overload, as employees in temporary or insecure positions are more likely to overextend themselves to secure their future employment. Contract-based lecturers, driven by the uncertainty of contract renewals or potential career advancement, often feel compelled to take on additional tasks beyond their core responsibilities, further heightening their stress levels (Cuyper et al., 2008; Nisar & Rasheed, 2020; Probst, 2003).

This study's findings align with previous research identifying role overload as a critical predictor of job stress, particularly in professions that require significant intellectual and emotional investment (Beehr et al., 1976; Winefield et al., 2003). The cognitive load associated with managing multiple academic roles, whether in teaching, research, or administrative duties, has contributed significantly to job stress (Antoniou et al., 2003; Szromek & Wolniak, 2020). Lecturers may feel unable to perform effectively across all areas, resulting in frustration, burnout, and diminished job satisfaction (Jamal, 1985; Maslach & Leiter, 2008; Saadeh & Suifan, 2020).

Moreover, the broader occupational stress literature has well-established the link between role overload and job stress. Studies by Lambert et al. (2021) and Mahmoud et al. (2021) have demonstrated that role overload contributes to increased job stress and higher levels of burnout, especially in professions where individuals are expected to maintain high

performance across multiple dimensions. The pressure to publish, teach, mentor students, and engage in academic administrative tasks can result in a workload that exceeds what is realistically manageable (Gillespie et al., 2001; Kinman & Wray, 2020).

The findings of this study also underscore the specific challenges faced by contract-based lecturers, who often feel obligated to overperform to demonstrate their value to the institution and secure contract renewals. This sense of insecurity and the need to prove oneself has been identified as a critical factor that exacerbates role overload (Ahmad et al., 2021; Cuyper et al., 2008; Probst, 2003). Hu et al. (2024) found that job insecurity increases stress and pushes employees to take on more tasks to secure their positions, thus creating a vicious cycle of overload and stress. In such contexts, contract-based lecturers may have to accept additional responsibilities, even if it leads to significant personal strain (Giauque et al., 2013; Kinman & Wray, 2020).

Reducing the pressures of role overload requires institutions to adopt a more equitable distribution of tasks between permanent and contract-based staff. Studies have shown that addressing workload imbalances can significantly alleviate job stress and improve overall job satisfaction (Antoniou et al., 2003; Probst, 2003; Tang & Vandenberghe, 2021). By ensuring that contract-based lecturers are not disproportionately burdened, academic institutions can foster a more supportive work environment, reducing the adverse impacts of role overload (Bakker et al., 2005; Fadli et al., 2024; Maslach & Leiter, 2008).

Furthermore, providing support mechanisms such as mentoring programs, time management training, and mental health resources can help lecturers manage their workloads more effectively (Bakker et al., 2005; Fadli et al., 2024; Maslach & Leiter, 2008). Research suggests that offering flexible work arrangements and additional administrative support can

also help reduce the stress associated with role overload, especially for contract-based roles (Giauque et al., 2013; Kinman & Wray, 2020). Institutions should also prioritize clear communication about role expectations and offer resources that enable lecturers to fulfil their responsibilities without feeling overwhelmed (Hasan et al., 2024; Jamal, 1984; Leiter & Maslach, 2017).

Finally, role overload significantly contributes to job stress among contract-based lecturers, and this study reinforces the need for academic institutions to recognize and address the pressures their staff face. By creating a more balanced workload and providing targeted support, institutions can reduce the stress associated with role overload and improve lecturers' overall well-being (Ahmad et al., 2021; Beehr et al., 1976; Sverke et al., 2002; Winefield et al., 2003). Reducing role overload is essential to improving job satisfaction and fostering a healthier, more productive academic environment.

H3 posits that role conflict significantly contributes to job stress, a finding confirmed in this study, though its impact is slightly less pronounced than role ambiguity and role overload. Role conflict arises when individuals face incompatible demands or expectations from different sources, such as departmental heads, university administration, and students (Beynon, 2024). In academic environments, lecturers are often expected to excel in both teaching and research, which can create tension and conflicting priorities. These dual expectations can be especially burdensome for contract-based lecturers, who may feel pressured to demonstrate their value in both areas to secure contract renewals or future employment opportunities (Sverke et al., 2002; Winefield et al., 2003).

Research supports that role conflict substantially contributes to job stress across various occupational settings, including academia. Studies have consistently shown that

when employees face contradictory demands, they experience heightened stress and reduced job satisfaction (O'Sullivan et al., 2024; Rizzo et al., 1970; Tubre & Collins, 2000). For contract-based lecturers, the need to meet often competing demands, such as maintaining high standards in teaching while producing publishable research, can lead to frustration and overwhelm (Gillespie et al., 2001; Hoseini et al., 2021). This tension is exacerbated when institutional support is lacking or there is insufficient guidance on balancing these competing priorities (Giauque et al., 2013; Lee & Jung, 2021).

However, the slightly lower impact of role conflict on job stress in this study, compared to role ambiguity and role overload, could indicate that lecturers have developed coping mechanisms to manage these conflicting demands. Previous research suggests that individuals in highly demanding professions may adopt various coping strategies, such as prioritizing tasks, seeking support from colleagues, or compartmentalizing responsibilities to manage role conflict more effectively (Folkman, 1984; Glazer & Beehr, 2005; Ngirande, 2021). For example, lecturers may prioritize their teaching responsibilities during the academic year and focus on research during breaks, which allows them to navigate conflicting expectations more effectively (Bakker et al., 2005; Tang & Vandenberghe, 2021).

Nonetheless, role conflict remains a significant source of stress, mainly when institutional priorities are unclear or when lecturers are not provided with adequate resources or support. Several studies have highlighted the adverse consequences of unresolved role conflict, including reduced job satisfaction, burnout, and even turnover intentions (Leiter & Maslach, 2017; Maden-Eyiusta, 2021; Taris, 2006). This is particularly problematic in academic settings because lecturers who cannot manage conflicting demands may disengage,

ultimately affecting their performance and well-being (Antoniou et al., 2003; Rafiq et al., 2021).

The findings of this study suggest that while contract-based lecturers may have developed some resilience in handling role conflict, it remains a persistent issue that can undermine their job satisfaction and overall well-being. Previous research indicates that clearer institutional priorities and better support systems could help mitigate the effects of role conflict. For instance, providing more transparent guidelines on the relative importance of teaching versus research or offering flexible work arrangements could help lecturers manage these competing demands more effectively (Sverke et al., 2002; Tubre & Collins, 2000).

Moreover, institutions can play a crucial role in reducing the impact of role conflict by fostering a more collaborative work environment. Studies show that employees with access to supportive colleagues and supervisors are better equipped to handle conflicting demands (Hessari et al., 2024). Creating a culture of open communication, where lecturers feel comfortable discussing their workload and seeking advice on managing competing priorities, could further alleviate the stress caused by role conflict (Maslach & Leiter, 2008; Xie et al., 2021). Additionally, professional development opportunities focusing on conflict resolution and time management could give lecturers the tools to navigate their responsibilities more effectively (Antoniou et al., 2003; Taris, 2006; Zang et al., 2022).

In conclusion, although role conflict may not have as pronounced an effect on job stress as role ambiguity or overload, it remains a significant issue that needs to be addressed within academic institutions. Clearer institutional priorities, better support systems, and targeted professional development can help lecturers manage these conflicting demands,

ultimately reducing stress and improving job satisfaction. By addressing the root causes of role conflict, institutions can create a more supportive environment that fosters lecturers' well-being and the institution's success.

5.2.2 Research Question 2: Does Job Stress Affect the Organizational Commitment (i.e., Affective, Normative, and Continuance Commitment) of Chinese Contract-Based University Lecturers?

After confirming in Research Question 1 that role stressors increase job stress, the next step is to explain what job stress is linked with in terms of lecturers' commitment to their universities. Therefore, this section addresses Research Question 2 through H7, H8, and H9, which test whether job stress predicts affective, normative, and continuance commitment. The findings show significant positive relationships between job stress and each commitment dimension. This indicates that when lecturers experience higher job stress, they also report stronger emotional attachment, stronger feelings of duty to stay, and stronger perceived costs of leaving. The discussion below explains each commitment dimension separately and connects the results to the realities of contract-based academic employment, where stress may shape commitment through coping, duty, and risk-based staying decisions.

The findings of this study confirm a significant positive relationship between job stress and affective commitment, supporting H7. This suggests that higher levels of job stress are associated with an increased emotional attachment to and identification with the organization. Although at first glance, this may seem counterintuitive, it aligns with existing research that demonstrates how, in specific contexts, stress can strengthen an employee's emotional bond with their employer. This relationship can be understood through Dodanwala et al. (2023) model of organizational commitment, which emphasizes affective commitment as the emotional attachment an individual feels toward their organization, leading to a desire

to remain part of it. Employees who experience high levels of job stress may develop a stronger emotional connection with their institution as a coping mechanism, viewing their perseverance under pressure as part of their commitment to the organization's success (Bentein et al., 2005; Roth et al., 2002; Wongsuwan et al., 2023).

In academic environments, especially for contract-based lecturers, job stress frequently arises from the challenge of balancing multiple responsibilities such as teaching, research, administration, and student mentorship. This pressure is often exacerbated by the uncertainty of contract renewals, driving lecturers to feel a heightened sense of responsibility and attachment to their institution. In this scenario, job stress can paradoxically lead to more substantial affective commitment, as lecturers may believe that enduring these stressful conditions is part of their professional duty and an opportunity to demonstrate their worth to the institution. Such findings are consistent with previous studies, which suggest that in high-stress work environments, employees often cultivate a deeper emotional bond with their organization, motivated by a desire to contribute meaningfully to the organization's success, particularly when they feel their efforts are recognized (Jaramillo et al., 2005; Mathieu & Zajac, 1990; Yunus et al., 2023).

The phenomenon where job stress strengthens affective commitment may also be tied to self-justification, where employees rationalize their efforts in stressful situations by reaffirming their emotional investment in the organization (Hobfoll, 1989; Rafiq et al., 2021). This dynamic is particularly relevant for academic staff, who often view their roles as not just jobs but as meaningful vocations tied to educational outcomes and institutional goals (Debus et al., 2020; Kinman & Jones, 2008). As a result, the emotional attachment of

lecturers may deepen as they cope with stress, viewing it as part of their commitment to the academic community and student success.

However, this relationship also presents potential long-term risks if job stress remains unaddressed. Prolonged exposure to high stress without sufficient support or coping mechanisms can lead to adverse outcomes such as burnout, emotional exhaustion, and eventual disengagement from the institution (Maslach et al., 2001; Saadeh & Suifan, 2020). While the initial increase in affective commitment may buffer the immediate adverse effects of stress, the relentless pressure could erode lecturers' emotional reserves over time, diminishing their ability to sustain their commitment. Emotional exhaustion, a key component of burnout, is particularly prevalent in academic settings, where sustained stress without resolution can lead to a breakdown in job satisfaction and organizational loyalty (Kinman & Wray, 2020; Schaufeli & Bakker, 2004).

To mitigate these risks, academic institutions must recognize the dual-edged nature of job stress and its impact on affective commitment. Providing lecturers with robust support systems, including stress management resources, clear communication regarding job expectations, and opportunities for professional development, can help sustain their emotional connection to the institution without leading to burnout. Institutions should prioritize creating a supportive work environment that acknowledges the pressures faced by contract-based lecturers, offering practical solutions such as workload redistribution and mental health resources to manage stress effectively (Gillespie et al., 2001; Vickovic & Morrow, 2020; Winefield et al., 2003).

In conclusion, while job stress can foster more substantial affective commitment in the short term, institutions should be cautious about the long-term effects of sustained stress

on lecturers' well-being. By addressing the sources of stress and providing adequate support, academic institutions can help maintain a healthy level of affective commitment while preventing the adverse consequences of burnout and disengagement. This proactive approach can ensure that lecturers remain emotionally connected to their institution in a sustainable and fulfilling manner.

The study identified a significant positive relationship between job stress and normative commitment, supporting H8. This indicates that lecturers feel a stronger sense of obligation to remain with their institution as job stress increases. Normative commitment is characterized by an individual's feeling of duty or obligation to stay with their employer, often influenced by internalized social norms, loyalty, or moral responsibility (Meyer et al., 1993; Wang et al., 2020). In the context of contract-based lecturers, this relationship indicates that despite the heightened stress they experience, they may feel a more vital moral duty to remain with their institution, which may stem from various personal and institutional factors.

One possible explanation for this finding is that contract-based lecturers may perceive their continued employment as a way to reciprocate the investment that the institution has made in them, whether through professional development opportunities, career support, or resources provided for their academic growth (Bentein et al., 2005; Modaresnezhad et al., 2021). This sense of reciprocity aligns with social exchange theory, which suggests that individuals develop normative commitment when they feel obligated to reciprocate benefits they have received from their employer (Blau, 1964; Untarini et al., 2020). In the case of academic staff, this might involve returning the support received through their loyalty and hard work, even when they are under considerable stress.

Additionally, as discussed by Lee and Jung (2021), the influence of social norms and values likely plays a role in this relationship. Lecturers, particularly those who value their roles in shaping students' academic success and contributing to the reputation of their department or university, may experience job stress but feel that leaving the institution would violate their internalized sense of responsibility. This sense of duty is especially prominent in academic environments where the commitment to student success, research, and institutional excellence is deeply embedded in the professional identity of lecturers (Eisenberger et al., 2002; Karas & Režňáková, 2021). As a result, even in the face of significant job stress, lecturers may stay with their institution because of this internalized sense of obligation.

However, while job stress may temporarily enhance normative commitment, it is essential to recognize that this relationship can have adverse long-term consequences if left unaddressed. Sustained job stress and the obligation to remain in a demanding work environment can lead to feelings of entrapment. Lecturers may feel obligated to stay, not because of a genuine desire to continue their work but because of a perceived moral duty or fear of disappointing their students or institution (Meyer & Herscovitch, 2001; Rafiq et al., 2021). Over time, this can lead to reduced job satisfaction, increased burnout, and a decline in overall well-being and performance (Maslach et al., 2001; Raub et al., 2021). This phenomenon, where individuals remain committed to their organization despite stress and dissatisfaction, has been termed “continuance entrapment” in the literature, where individuals feel trapped by the weight of their obligations (Bagdžiūnienė et al., 2022; Vandenberghe & Tremblay, 2008).

In order to prevent these adverse outcomes, academic institutions must provide support systems that help lecturers manage job stress effectively while maintaining a healthy sense of normative commitment. Offering resources such as counseling services, stress management workshops, and opportunities for open dialogue about job-related pressures can foster a more positive work environment. Institutions should also ensure that the obligations and expectations placed on lecturers are reasonable and manageable, avoiding situations where stress exacerbates feelings of obligation to the point of entrapment (Eisenberger et al., 2002; Guo et al., 2022). By doing so, institutions can maintain the benefits of normative commitment, such as loyalty and dedication, while reducing the risk of burnout and disengagement.

Moreover, clear communication about career progression, job expectations, and contract renewals can help alleviate some of the uncertainty contributing to job stress for contract-based lecturers. When lecturers feel secure in their roles and supported by the institution, their sense of normative commitment is more likely rooted in genuine loyalty and job satisfaction rather than in feelings of obligation created by stress. This approach would allow institutions to foster a more sustainable commitment that promotes well-being and long-term organizational success (Allen & Meyer, 1990; Uyeri, 2024).

In summary, while job stress can strengthen normative commitment in the short term, academic institutions must recognize the potential long-term risks associated with this relationship. By providing adequate support and ensuring that lecturers do not feel overburdened by their obligations, institutions can cultivate a healthy sense of loyalty and duty without compromising the well-being of their staff.

This study found a significant positive relationship between job stress and continuance commitment, supporting H9. This suggests that lecturers experiencing high stress levels are more likely to stay with their institution due to the perceived economic, professional, or social costs of leaving. Continuance commitment, as defined by Isom (2023), refers to an individual's decision to stay with their organization because the perceived costs of leaving are too high. In contract-based lecturers, this commitment could stem from limited alternative employment opportunities, the financial risks in seeking a new position, or concerns about job market competitiveness (Allen & Meyer, 1996; Weichselbraun et al., 2024).

This finding is consistent with previous research that has demonstrated how job stress can reinforce continuance commitment, especially when employees feel trapped by the potential consequences of leaving their jobs (Powell & Meyer, 2004; Raub et al., 2021). Lecturers in stressful academic environments may believe that leaving their current institution would place their financial stability, professional standing, or career trajectory at risk. The academic job market, particularly for contract-based positions, is often competitive and unpredictable, and lecturers may feel that securing a new role could be even more challenging, contributing to their decision to remain despite the high levels of stress they experience (Alblihed & Alzghaibi, 2022; Shore & Tetrick, 1991).

Although it may ensure short-term retention, continuity commitment is typically regarded as less desirable, based on necessity rather than genuine loyalty or emotional attachment to the institution (Hook, 2023; Meyer et al., 2002). Employees who stay in an organization primarily due to continuance commitment often report lower levels of job satisfaction and engagement, leading to a decline in performance and well-being over time

(Jaros, 1997; Szromek & Wolniak, 2020). Contract-based lecturers, for instance, may remain with their institutions out of fear of losing income or professional connections rather than because they are motivated by their passion for teaching or research.

Moreover, continuance commitment can harm both the individual and the institution. Lecturers who stay because they feel they have no other options may become disengaged, less productive, or more prone to burnout (Allen & Meyer, 1990; Saadeh & Suifan, 2020). This disengagement could adversely impact the quality of education provided to students and the overall academic environment, as lecturers who are not fully invested in their work may struggle to maintain high teaching, research, or service standards. As job stress reinforces continuance commitment, the resulting adverse outcomes can create a cycle of dissatisfaction and reduced performance, which can be difficult to break without institutional intervention (Abaidoo & Agyapong, 2024; Eisenberger et al., 2002).

For academic institutions, the challenge lies in addressing the underlying sources of job stress contributing to continuance commitment. While retaining staff through high levels of commitment may seem advantageous, it is essential to recognize that commitment driven by stress and fear of leaving is not sustainable in the long run. Lecturers who stay because they feel they have no other viable options will likely experience diminished job satisfaction, leading to poorer outcomes regarding personal well-being and institutional success (Lee & Mitchell, 1994; Zitek et al., 2023). In this sense, institutions should aim to foster more desirable forms of commitment, such as affective and normative commitment, based on emotional attachment and loyalty to the institution rather than the perceived costs of leaving.

Institutions can take proactive steps to reduce job stress and minimize its influence on continuance commitment by offering more support to lecturers in managing their

workloads and stress levels. Providing clear communication about job expectations, opportunities for career advancement, and professional development can help lecturers feel more secure in their roles, reducing their reliance on continuance commitment as a means of staying in the organization (Abaidoo & Agyapong, 2024; Meyer et al., 1993). By addressing the factors contributing to job stress, institutions can create an environment where lecturers are motivated to stay because they feel valued and supported, not because they have no other choice.

In conclusion, while job stress may reinforce continuance commitment, academic institutions must recognize this relationship's potential long-term adverse effects. Continuance commitment, driven by stress and a fear of leaving, can lead to disengagement and reduced performance. Therefore, institutions should strive to reduce job stress and foster more positive forms of commitment, ensuring that lecturers remain with the institution because of genuine loyalty and job satisfaction rather than the perceived costs of leaving.

5.2.3 Research Question 3: Does Job Insecurity Moderate the Impact of Role Stressors on Job Stress Among Chinese Contract-Based University Lecturers?

The final discussion section focuses on the moderator, explaining when and why role stressors become more stressful. This section addresses Research Question 3 using H4, H5, and H6, which test whether job insecurity strengthens the effects of role ambiguity, role overload, and role conflict on job stress. The results show that job insecurity significantly strengthens these relationships. This means that role stressors lead to higher stress for all lecturers, but the impact becomes stronger when lecturers feel uncertain about job continuity. In contract-based employment, this finding is important because it shows that reducing job

stress is not only a matter of managing workload and role clarity. It also requires institutional steps that reduce uncertainty around contracts, renewal conditions, and career pathways.

A key finding of this study is the significant positive moderating role of job insecurity in the relationship between role stressors (such as role ambiguity, role overload, and role conflict) and job stress. Job insecurity, defined as the perceived threat of job loss or uncertainty about continued employment, amplifies the impact of these role stressors. This means that lecturers who feel uncertain about their job continuity experience higher stress levels when faced with unclear roles or excessive workloads. This aligns with a robust body of literature on job insecurity, which consistently demonstrates that the perception of unstable employment exacerbates the effect of workplace stressors, leading to heightened anxiety, reduced job satisfaction, and lower well-being (De Witte, 2005; Debus et al., 2020; Probst, 2003; Sverke et al., 2002). For contract-based lecturers who operate in a context where job renewal is often uncertain, the perception of job insecurity can significantly intensify their overall stress levels, undermining mental health and job performance (Ashford et al., 1989; Hellgren et al., 1999; Rahayu & Hidayat, 2021).

The significantly positive moderating influence of job insecurity was particularly pronounced in the relationship between role ambiguity and job stress, thus supporting H4. When job expectations are unclear, as in contract-based positions, a heightened sense of job insecurity intensifies anxiety and diminishes the sense of control. This finding is consistent with prior research, which has shown that job insecurity strengthens the effects of role stressors by reducing employees' perceived control and increasing vulnerability within the work environment (Alquist & Baumeister, 2024; Cheng & Chan, 2008). The combination of unclear expectations and fear of job loss creates a stress spiral, as lecturers feel less equipped

to navigate vague demands while simultaneously fearing employment discontinuity (Debus et al., 2020; Kinnunen et al., 2000; Staufenbiel & König, 2010). This undermines their coping capacity and diminishes their motivation and focus (Cuyper et al., 2008; Hoseini et al., 2021).

The significant positive interaction between job insecurity and role overload also underscores the detrimental influence of employment uncertainty in exacerbating workplace stress, supporting H5. When lecturers face excessive workloads, a strong sense of job insecurity intensifies their struggle to meet these demands due to fears of non-renewal or perceived underperformance. Research has long established that role overload, where employees feel pressured to fulfill numerous responsibilities within limited time and resources, is a major driver of stress (Glazer & Beehr, 2005; Jamal, 1984; Raub et al., 2021). Job insecurity exacerbates this stress, as contract-based lecturers experiencing doubts about future employment may overexert themselves in fear of losing their positions (Sverke et al., 2002; Tang & Vandenberghe, 2021). This aligns with findings by Debus et al. (2020), who noted that job insecurity contributes to burnout and deteriorated job satisfaction, undermining productivity and well-being.

The moderating effect of job insecurity on the relationship between role conflict and job stress (H6) was significant and positive. When employees encounter incompatible or contradictory demands, role conflict contributes to job stress. This study indicates that perceived job insecurity intensifies this effect, suggesting that lecturers who worry about their employment future experience greater stress when faced with conflicting role expectations. This challenges prior assumptions that job insecurity plays a limited role in role conflict dynamics. Instead, the findings suggest that insecurity amplifies the adverse

impact of role conflict, possibly because lecturers in precarious positions feel less empowered to reject, question, or negotiate conflicting demands. In response, lecturers experiencing job insecurity may adopt survival-oriented coping strategies, such as overcommitment, task prioritization, or self-sacrifice, which may further heighten their stress levels (Bakker et al., 2005; Beehr & Bhagat, 1985; Han et al., 2020).

These findings align with research suggesting that job insecurity shapes individuals' cognitive appraisal of stressors, making them appear more threatening and less manageable (Debus et al., 2020; Folkman, 1984; Jex & Bliese, 1999). Therefore, lecturers may feel the stress of role conflict, ambiguity, and overload more acutely in environments with high job insecurity, leading to negative effects on their well-being and job satisfaction. Given these insights, reducing job insecurity through institutional interventions becomes critical. Academic institutions can alleviate the impact of role stressors on job stress by improving employment stability and offering transparent communication about contract renewals, performance expectations, and promotion pathways (De Witte, 2005; Sverke et al., 2002). In addition, institutions should implement support systems such as professional development programs, mentorship opportunities, and workload management training to help lecturers manage role conflict more effectively. Moreover, institutions should implement faculty support systems such as mentoring, workload balancing, and career counseling programs to help lecturers manage stressors effectively (Bliese & Castro, 2000; Szromek & Wolniak, 2020).

By fostering a more secure and supportive work environment, institutions can mitigate the negative effects of job insecurity on role stressors, thereby improving lecturer well-being and performance. The results underscore the importance of addressing job

insecurity explicitly, in addition to managing role-related stressors. In conclusion, this study emphasizes that job insecurity intensifies the relationship between role stressors and job stress. While stress from unclear roles and high demands is substantial on its own, the perception of job instability magnifies these effects, particularly in contract-based academic settings. To reduce these stressors and promote a healthier work environment, academic institutions must prioritize job security initiatives, transparent contract policies, and professional support systems.

5.3 Theoretical and Practical Implications

This study's findings offer theoretical and practical implications for educational institutions, particularly for contract-based lecturers. The study has provided new insights into the relationships between job stress, role stressors, and organizational commitment. By highlighting the influence of job stress on affective, normative, and continuance commitment, it extends existing models of organizational commitment. These implications extend to academia and broader sectors where contract-based employment is prevalent. The sections below elaborate on the theoretical and practical implications of the study's findings.

5.3.1 Theoretical Implications

This study has made several significant theoretical contributions, especially in expanding our understanding of how role stressors and job insecurity affect organizational commitment among contract-based lecturers. First and foremost, the study contributes to the literature on organizational commitment by demonstrating the moderating role of job insecurity. Previous research has often focused on the direct relationship between job stress

and organizational commitment, but this study highlights how job insecurity can intensify the effects of job stress on various forms of commitment (e.g., affective, normative, and continuance) (De Witte, 2005; Sverke et al., 2002; Wang et al., 2020). The findings align with and extend Meyer et al. (1991) three-component model of organizational commitment by introducing job insecurity as a key external factor that shapes how employees experience and respond to workplace stress. Furthermore, this adds a novel contribution to existing models of organizational commitment, notably the three-component model (Ahmad et al., 2021), by showing that external stressors, such as job insecurity, can shape how individuals experience and respond to workplace stress. These findings demonstrate that job stress significantly impacts affective, normative, and continuance commitment. The study further integrates the three-component model with social exchange theory by highlighting how job insecurity and workplace stress jointly influence employees' sense of obligation and emotional attachment to their organisation, particularly among contract-based lecturers.

The unique contribution of this research is its illumination of the complex interaction between job insecurity and role stressors in shaping organizational commitment. The study's findings enrich role theory by Kahn et al. (1964), demonstrating that role ambiguity and role overload significantly contribute to job stress, especially when compounded by job insecurity. This interaction highlights the cascading effects of unclear and excessive job demands on lecturers' stress levels and organizational commitment. By confirming that role ambiguity and role overload are magnified under conditions of job insecurity, this study offers a more dynamic application of role theory to academic settings. Specifically, it adds theoretical value by demonstrating that role stressors do not operate in isolation but are intensified by contextual employment insecurities, an area previously underexplored in the theory. This integration extends role theory beyond its traditional formulation by introducing

job insecurity as a boundary condition that shapes the strength and outcomes of role stressors. It offers a more contextualized and realistic framework for understanding stress responses in precarious academic employment. These findings align with the theoretical framework of role theory, which posits that unclear and conflicting role expectations lead to stress and organizational consequences. Prior studies have often treated job insecurity and role stressors as separate phenomena, but this study demonstrates that they interact in ways that magnify workplace stress's impact. The findings suggest that job insecurity exacerbates the stress caused by role ambiguity and role overload, making it more likely for individuals to experience more vital forms of continuance commitment. This reveals a dynamic process wherein job stress induced by unclear roles or excessive workloads becomes even more potent in an environment of job insecurity, pushing lecturers to remain committed out of fear of job loss (Ashford et al., 1989; Cheng & Chan, 2008; DeMatthews et al., 2021).

Moreover, the findings emphasize the importance of role stressors, role ambiguity, role overload, and role conflict, in contributing to job stress and organizational commitment. This study advances role theory by demonstrating how the interaction between role stressors and job insecurity contributes to distinct organisational commitment dimensions, including emotional attachment and obligatory retention. Role theory, which posits that unclear and conflicting role expectations lead to stress, is supported by this study, but with an added dimension of how these stressors interact with job insecurity to influence commitment (Kahn et al., 1964; Karas & Režňáková, 2021). This study extends the application of role theory by showing that the impact of role ambiguity and role overload on stress, and ultimately on commitment, is more pronounced when compounded by job insecurity. This theoretical contribution is particularly relevant to contract-based employment, where job roles are often

less clearly defined, and the fear of non-renewal or job loss is ever-present (Maden-Eyiusta, 2021; Sverke et al., 2002).

The study also enriches the conversation around affective commitment by showing that job stress does not always have a purely adverse impact. In some cases, job stress may strengthen emotional attachment to the institution as a coping mechanism, complicating how we understand stress and commitment in academic settings (Meyer et al., 2002; Rafiq et al., 2021). The finding that job stress can lead to heightened affective commitment offers a fresh perspective on employees' emotional responses under pressure. This suggests that while job stress typically detracts from well-being, in some instances, lecturers may channel their stress into a greater sense of belonging or loyalty to the institution, driven by the desire to persevere in challenging circumstances. This phenomenon aligns with psychological theories of stress and resilience, in which individuals facing adversity may double down on their attachment to the organization to find stability (Hobfoll, 1989; Raub et al., 2021).

Furthermore, this study contributes to the literature on social exchange theory by showing that contract-based lecturers may feel obligated to remain with their institution because of the investments they have made in their professional development. This helps explain the positive relationship between job stress and normative commitment, as lecturers may perceive leaving the institution as a violation of the reciprocity norm, even if their work environment is stressful (Eisenberger et al., 2002; Tang & Vandenberghe, 2021; Wiener, 1982). The findings show that job stress, compounded by job insecurity, increases employees' moral obligation to remain committed, thereby supporting the principles of social exchange theory. Specifically, the study shows that perceived institutional support fosters normative commitment, as lecturers feel compelled to reciprocate through loyalty, even under stressful

conditions. This theoretical insight links to the broader application of social exchange theory in explaining the retention of contract-based employees. Lecturers who perceive these benefits are more likely to stay committed to their institution out of a moral duty to reciprocate, even when faced with considerable job stress (Alblihed & Alzghaibi, 2022; Blau, 1964). This theoretical insight extends the application of social exchange theory into the academic sector, particularly for contract employees who may not have the same long-term security as permanent staff.

Additionally, the study offers new insights into the connection between job stress and continuance commitment. Continuance commitment, which arises when employees feel the costs of leaving an organization are too high, is traditionally viewed as an adverse form of commitment, in which individuals stay not because they want to but because they feel they have no choice (Allen & Meyer, 1996; Annamalai, 2022). This study deepens our understanding of this dynamic by demonstrating that job stress can lead to a stronger sense of continuance commitment when compounded by job insecurity. Contract-based lecturers, who often face precarious employment conditions, may feel that the risks of leaving the institution, whether due to financial instability, loss of professional standing, or limited alternative job opportunities, are too high, reinforcing their decision to stay. These findings expand on continuance commitment by integrating job stress and insecurity as key drivers, thereby adding a contextual dimension to existing theories of organizational retention.

Finally, this study offers a broader theoretical contribution by bridging multiple frameworks, role theory, social exchange theory, and the three-component model of organizational commitment, to offer a comprehensive view of how job stress and job insecurity influence contract-based employees. The integration of these frameworks

demonstrates how external factors, such as job insecurity, and internal factors, such as role stressors, jointly affect organizational commitment, making this study a valuable contribution to the theoretical discourse on workplace stress. It builds on existing research by providing empirical evidence from an academic context in which contract-based employment is increasingly common and where the pressures of job insecurity and role stressors are particularly acute. The study advances theoretical understanding and opens new avenues for research into the unique challenges contract-based workers face across various sectors.

5.3.2 Practical Implications

The findings of this study offer clear and practical guidance for universities that rely on contract-based lecturers. Since role ambiguity, role overload, and role conflict were linked with higher job stress, and job stress was linked with stronger forms of organizational commitment, universities should not ignore stress as “normal” in academic work. Instead, they should manage the conditions that create stress so that lecturers can remain committed in a healthy, sustainable way. The following actions can help universities reduce harmful stress, support lecturers' well-being, and strengthen institutional performance.

First, universities should improve clarity and transparency about job roles and expectations. Role ambiguity was a strong predictor of job stress, indicating that unclear duties and performance standards can create ongoing pressure for contract-based lecturers. Universities should provide written role descriptions that clearly explain teaching workload, research expectations, administrative tasks, and evaluation criteria. Regular feedback and simple performance review guidelines can also reduce uncertainty, especially when contract

renewal depends on meeting specific standards (Blix et al., 1994; Chen et al., 2022; Gillespie et al., 2001).

Second, universities should manage workload distribution to reduce role overload. Contract-based lecturers often handle heavy workloads because they combine teaching, research tasks, administrative work, and student support (Gabriel, Butts, et al., 2022; Winefield et al., 2003). Universities should set fair workload limits and avoid assigning extra duties only because contract-based staff are available or “flexible.” Practical steps include balancing teaching hours across semesters, providing administrative assistance, and reducing unnecessary reporting tasks. Training on time management and work-life balance can also help lecturers handle workload pressure more effectively (Fadli et al., 2024; Fauzi et al., 2024; Ramachandaran et al., 2024).

Third, universities should reduce job insecurity through transparent employment and career policies. Job insecurity is a major concern in contract-based employment and can increase stress, especially when lecturers are unsure about contract renewal or future career options (Ma, 2024; Sverke et al., 2002). Universities can reduce this stress by sharing clear contract renewal procedures, timelines, and performance criteria. Where possible, offering longer contracts, stable renewal policies, and clear pathways toward longer-term positions can reduce anxiety and support retention (Cogan et al., 2025; Houston et al., 2025).

Fourth, universities should pay attention to the risks linked with high continuance commitment. Some lecturers may stay mainly because leaving feels costly, not because they feel supported or satisfied. This can protect short-term staffing needs but may reduce motivation and performance over time (Debus et al., 2020). Universities should therefore address stress early by providing access to counseling services, stress management support,

and mental health resources. These supports can help lecturers cope in healthier ways and reduce the feeling of being “stuck” in a stressful job (Wang et al., 2020; Zhang et al., 2024).

Fifth, universities should build a more supportive community for contract-based lecturers by involving them in policy discussions and decision-making that affect their work. Contract-based lecturers often feel excluded from departmental planning, teaching reforms, and discussions about workload. Involving them in committee meetings (where appropriate), teaching policy discussions, and feedback sessions can improve their sense of inclusion, reduce isolation, and improve well-being across the university community. This involvement can also help universities design more realistic policies, as contract-based lecturers experience these pressures firsthand.

Sixth, universities should provide recognition and reward systems for contract-based lecturers, not only for permanent staff. A common issue in universities is that contract-based staff contribute heavily to teaching and student outcomes but receive limited recognition. Simple and fair reward practices, such as teaching awards, certificates, public recognition, training sponsorship, research support, or small performance-based incentives, can strengthen morale and reduce frustration. Recognition signals that the institution values its contribution, which can improve emotional attachment and loyalty, and help build a more stable academic workforce (Ahmad et al., 2021; Meyer et al., 2002).

Overall, universities can improve lecturer well-being and strengthen organizational outcomes by clarifying job expectations, managing workload fairly, reducing job insecurity, offering support services, involving contract-based staff in policy discussions, and giving recognition and rewards that include contract-based lecturers. These actions can help create

a healthier academic environment where commitment is built through support and fairness, not through stress and insecurity.

5.4 Limitations of the Study

This study offers significant contributions to understanding the role of job stress and organizational commitment in academic institutions, particularly among contract-based lecturers. Examining how role stressors, such as role ambiguity, role overload, and role conflict, interact with job insecurity to influence various forms of organizational commitment provides valuable insights into the challenges faced by temporary faculty members. Additionally, the findings regarding the moderating role of job insecurity enrich organizational commitment theory and role stress literature, highlighting the complex dynamics influencing lecturers' emotional attachment, sense of obligation, and loyalty to their institutions. These insights offer valuable implications for academic research and organizational practice, particularly in improving contract-based employees' working conditions and retention strategies.

However, the study has limitations that should be considered when interpreting the findings. First, the sample is limited to contract-based lecturers in a specific academic context, focusing only on six universities in Jiangsu Province, China. This narrow scope may restrict the generalizability of the results to other academic settings or regions. Cultural, institutional, and socio-economic factors may significantly alter lecturers' experiences in other environments, potentially leading to different dynamics between job stress, job insecurity, and organizational commitment.

Second, the study employs a cross-sectional design, collecting data at a single point in time. While this approach effectively identifies correlations between variables, it does not allow for conclusions about causality or the directionality of relationships. For instance, while the study suggests that job stress influences commitment, it is equally possible that lecturers with higher commitment levels experience more stress due to their greater involvement and dedication. A longitudinal design would provide more substantial evidence of how these relationships evolve.

Third, reliance on self-reported data introduces potential biases such as social desirability or response consistency. Participants may respond in ways that reflect positively on themselves or align with previous answers, which could affect the reliability of the findings. While self-reported data are common in organizational research, incorporating additional data sources, such as supervisor assessments or performance evaluations, could provide a more holistic understanding of the phenomenon.

Finally, the study primarily focuses on contract-based lecturers, which limits its scope in capturing broader organizational perspectives. While this group is essential to the research focus, the experiences of other stakeholders, such as permanent faculty, administrators, and students, are not included. Understanding how these stakeholders perceive role stress, job insecurity, and organizational commitment could provide a more comprehensive view of institutional dynamics and improve organizational policies to benefit all employees. Despite these limitations, the study lays a strong foundation for future research to explore these critical areas further.

5.5 Directions for Future Research

Future research could expand these findings by examining the same variables in different academic or professional contexts to determine whether the observed patterns hold in diverse settings. For instance, comparative studies across various cultural and institutional frameworks could highlight differences in how job stress, job insecurity, and organizational commitment interact, providing more globally applicable insights. Additionally, investigating these dynamics in non-academic sectors could broaden the understanding of how contract-based employment influences organizational commitment.

A longitudinal study design could also be employed to explore how job stress and organizational commitment evolve, particularly concerning contract renewals, career progression, or changes in organizational policies. Longitudinal data would help establish causality and clarify whether changes in commitment levels lead to variations in job stress or vice versa.

Additional data sources, such as supervisor evaluations, peer feedback, or objective work performance measures, could complement self-reported data and provide a more comprehensive understanding of the relationships between job stress and commitment. Combining quantitative data with qualitative interviews or focus groups, mixed-method approaches could add depth to the findings by uncovering nuances not captured through survey responses alone.

Furthermore, future studies could include perspectives from other stakeholders, such as permanent faculty, administrators, and students, to better understand how role stress and organizational commitment are perceived across various institutional levels. This would provide deeper insights into the organizational culture, power dynamics, and structural

factors shaping the experiences of contract-based and permanent staff. Including cross-sectional perspectives would also offer a more integrated approach to addressing institutional challenges.

Finally, research could investigate institutional strategies to reduce job insecurity for contract-based lecturers. This includes examining the effects of multi-year contracts, pathways to tenure, and other career stability initiatives on reducing stress and enhancing organizational commitment. Additionally, exploring the effectiveness of mentoring programs, professional development opportunities, and workload management policies could yield actionable recommendations for academic institutions. By addressing these areas, future research can build on the present findings to further enrich the understanding of job stress and organizational commitment in academic settings while offering practical solutions for improving workplace environments.

5.6 Conclusion

In conclusion, this study has provided significant insights into the complex relationships among job stress, role stressors, job insecurity, and organizational commitment within the specific context of contract-based university lecturers in Jiangsu Province, China. The findings underscore the positive impact of role ambiguity, role overload, and role conflict on job stress and demonstrate how this stress subsequently influences various dimensions of organizational commitment—namely, affective, normative, and continuance commitment. These stressors are particularly pronounced in the contract-based academic context, where lecturers face intensified expectations amidst constrained institutional support.

Moreover, the study reveals that job insecurity, defined as the perceived risk of job loss and uncertainty about continued employment, serves as a significant positive moderator, further intensifying the effect of role stressors on job stress. This amplifying effect is especially relevant for contract-based lecturers, who must simultaneously manage demanding work roles and persistent concerns about employment continuity. Such findings extend the theoretical understanding of role theory and organizational commitment frameworks by illustrating how employment insecurity dynamically shapes stress experiences in higher education institutions.

From a practical standpoint, the research emphasizes the urgent need for academic institutions to reduce job-related stressors by ensuring clearer communication about job roles, fair and realistic workload allocations, and transparent career development policies. These strategies are critical not only for reducing job stress but also for enhancing lecturers' emotional engagement and long-term commitment to their institutions. By addressing the dual burden of high role demands and employment uncertainty, institutions can help foster a healthier, more resilient academic workforce.

Although this study is limited by its cross-sectional design and reliance on self-reported data, it establishes a robust foundation for future research. Longitudinal studies can further explore the evolving nature of stress and commitment over time, and multi-stakeholder analyses could uncover institutional practices that effectively buffer against job insecurity. Additionally, exploring the effects of targeted policies, such as mentorship programs or tenure-track opportunities, would provide further evidence-based strategies to support contract-based lecturers.

Overall, the study reinforces the importance of proactively managing job stress and employment uncertainty in the academic sector, particularly for non-tenured staff. As shown in the findings, the emotional attachment and organizational commitment of contract-based lecturers are intricately shaped by the interaction between role-related stressors and the perceived threat of job loss. By adopting more inclusive and supportive employment practices, universities in China and similar educational systems can strengthen faculty well-being and institutional performance, ultimately contributing to a more sustainable and high-performing academic environment.

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APPENDICES

Appendix A: Summary of Previous Studies to Support the Current Work

Author(s) and Year	Variables Examined	Sample Characteristics	Findings
(Rizzo et al., 1970)	Role ambiguity, role conflict	Various organizational settings	Identified role ambiguity and conflict as significant stressors.
(Beehr et al., 1976)	Role overload, role ambiguity, nonparticipation	Employees in multiple work environments	Classified role stressors into role overload, ambiguity, and nonparticipation.
(Abdel-Halim, 1978),	Role overload, role ambiguity, role conflict	Organizational employees	Emphasized the impact of conflicting, incompatible, or unclear expectations.
(Greenhaus & Parasuraman, 2014),	Role ambiguity, role conflict	Employees across different sectors	Highlighted the adverse personal consequences of role ambiguity and conflict.
(Raub et al., 2021)	Role overload, role ambiguity, nonparticipation	Workers in various occupational fields	Examined the psychological states affected by role stressors.
(Pratiwi, 2019)	Role overload, role ambiguity, role conflict	Academic and non-academic staff	Analyzed how these stressors impact job satisfaction and commitment.
(Eatough et al., 2011)	Role overload, role conflict, role ambiguity	Various professional settings	Categorized stressors into role ambiguity, conflict, and overload.
(Lankau et al., 2006),	Role conflict, role ambiguity	Employees in diverse job roles	Investigated the relationship between role stressors and job performance.
(Um & Harrison, 1998)	Role ambiguity, role conflict	Social work environments	Defined role stressors as problematic due to unclear, conflicting expectations.
(Ahmad, 2023)	Role ambiguity, role conflict	Employees in multiple sectors	A significant correlation was found between role ambiguity, conflict, and job stress.
(Probst et al., 2020)	Role overload, role ambiguity, role conflict	High-risk job environments	Discussed the perceived dangerousness of a job and its impact on role stressors.
(Lambert et al., 2021)	Role conflict, role ambiguity, role overload, and dangerousness	Correctional job environments	Identified critical stressors in correctional settings, including role conflict and job dangerousness.

(Dijkstra et al., 2020)	Role ambiguity, role conflict	Employees in professional and technical roles	Examined how role conflict arises from contradictory demands and its effects on job performance.
(Hoseini et al., 2021)	Role overload, role conflict, role ambiguity	Various organizational settings	Confirmed role overload, conflict, and ambiguity as prevalent stressors in the workplace.
(Yongkang et al., 2014)	Role overload, role conflict, role ambiguity	Middle-level cadres in the Chinese local government	Highlighted the stress caused by role overload, conflict, and ambiguity among government employees.
(Kahn et al., 1964)	Role ambiguity	Various professional environments	Described role ambiguity as a lack of predictability in role performance outcomes.
(Tubre & Collins, 2000),	Role conflict	Employees in diverse roles	Observed that role conflict is associated with adverse personal consequences, though typically weaker than ambiguity.
(Gupta & Beehr, 1979)	Job stress factors	Employees from various organizations, including a printing firm, an R&D enterprise, automotive parts suppliers, and a medical facility service division	The impact of unclear roles, excessive workload, underused skills, and insufficient resources on employee behaviors like missing work and quitting
(Jamal, 2011)	Job stress, organizational commitment	Employees of a major multinational corporation in Malaysia and Pakistan	Investigated how organizational commitment influences the link between job stress and work performance
(Arshadi & Damiri, 2013)	Job stress, intention to leave, work performance	Employees of the Iranian National Drilling Company	Examined how self-esteem tied to the organization moderates the effects of job stress on work performance and intention to leave
(Rizwan et al., 2014)	Job stress factors, job satisfaction, performance	Employees in Bahawalpur, Pakistan	Analyzed the impact of conflicting roles and unclear job responsibilities on job satisfaction and performance
(Said & El-Shafei, 2021)	Occupational stress, job satisfaction	Diverse employees	Evaluated factors contributing to job stress, including managerial responsibilities and workload
(Nart & Batur, 2014)	Work-family conflict, job stress,	Elementary school	Investigated the impact of work-family conflict on job

	organizational commitment	lecturers in Turkey	stress and organizational commitment
(Safaria, 2014)	Job stress, role stressors, job insecurity, leadership styles	University academic staff in Jogjakarta, Indonesia	Explored the prediction of job stress based on role stressors and job insecurity
(Nisar & Rasheed, 2020)	Job stress	Academic staff in private universities in Pakistan	Examined various stressors faced by academic staff
(Irving & Coleman, 2003)	Role ambiguity, job stress	Employees at a Canadian government agency's regional office	Explored the association between role ambiguity and job stress
(Duxbury & Halinski, 2018)	Role overload, job stress	Canadian male and female police officers	Examined the relationship between role overload and job stress
(Kristanto et al., 2021)	Job stress, performance	Government officers in Baperlitbang Banjarnegara, Indonesia	Studied the interplay between job stress and performance
(Cooper et al., 1989)	Job stress	Randomly selected general practitioners in England	Identified causes of job stress leading to job dissatisfaction and adverse mental well-being
(Abualrub et al., 2010).	Work-related stress, job performance	American hospital nurses and non-American nurses	Examined the impact of work-related stress on job performance and how coworker support influences this dynamic
(Karimi et al., 2014)	Job stress	Nurses from the emergency and surgery departments in Yasuj, southwest Iran	Studied job stress among nurses in high-pressure environments
(Kafashpoor et al., 2014)	Job stress	Nurses in Mashhad's public hospitals Iran	Analyzed the stress levels of nurses in public hospitals
(Alipour & Kamaee Monfared, 2015)	Job stress	Nurses working in the hospitals of Behbahan, Iran	Investigated job stress among nurses in Iranian hospitals
(Ruzungunde et al., 2016)	Job stress	Healthcare personnel in the Eastern Cape Province of South Africa	Studied job stress among healthcare workers
(Tripathi et al., 2019)	Job stress	House officers at Synergy Institute of Medical Sciences & Hospital, Dehradun,	Examined job stress in healthcare settings

		India	
(Stout & Posner, 1984)	Stress, role ambiguity, role conflict, job satisfaction	Employees in mental health, mental retardation, and physical rehabilitation facilities	There is a significant correlation between role ambiguity and job stress. Higher stress levels are often linked with increased ambiguity in one's role.
(Irving & Coleman, 2003)	Role ambiguity, job tension, different forms of organizational commitment	Employees of a regional branch of a Canadian governmental agency	Job tension is found to have a positive correlation with continuance commitment. Individuals with a higher level of continuance commitment tend to be more vulnerable to organizational stressors than those with a lower level of such commitment.
(Lambert et al., 2005a)	Role conflict, role ambiguity, role overload, dangerousness, job stress	Private prison staff	Factors such as role conflict, ambiguity, overload, and perceived danger significantly impact the levels of job stress, satisfaction, and organizational commitment among staff in private prisons.
(Ram et al., 2011).	Role conflict, role ambiguity, work stress	Pakistani managers of manufacturing industries	Role conflict and role ambiguity are positively and significantly related to work stress.
(Safaria, 2014)	Leadership practices, role ambiguity, role conflict, job stress, religious coping	Academic staff from Jogjakarta, Indonesia	Leadership practices, role ambiguity, and role conflict are directly and significantly linked to job insecurity. Role conflict and role ambiguity also directly and significantly impact job stress.
(Karimi et al., 2014)	Role overload, role conflict, role ambiguity, occupational stress, job stress	Nurses in Yasuj hospitals in southwest Iran	Role overload, conflict, ambiguity, and occupational stress are significantly and positively related.
(Yongkang et al., 2014)	Role conflict, role ambiguity, role overload, job stress	Chinese Middle-Level Cadres	Job anxiety and stress are significantly and positively related to factors like role ambiguity, role conflict, and role overload. Role ambiguity considerably heightens job anxiety and stress. Role conflict and role overload significantly contribute to increased time pressure and elevated levels of

			job anxiety and stress.
(Parvaiz et al., 2015)	Role conflict, role overload, leadership support, organizational politics, stress	Academic staff of private universities in Pakistan	All the independent variables are significantly and positively correlated with stress.
(Alghamdi, 2017)	Role overload, job stress	Female university lecturers	Job stress among female university lecturers is a consequence of role overload. There is a notable positive correlation between the extent of role overload and the level of job stress experienced.
(Halinski & Duxbury, 2017)	Role overload, stress	Male and female police officers in Canada	The connection between excessive work responsibilities and stress is more pronounced in male police officers, while the link between excessive family responsibilities and stress is more evident in female police officers.
(Mittal & Bhakar, 2018)	Role overload, job stress, job satisfaction, job performance	Married working women in the banking sector in the Raipur Chhattisgarh region of India	Role overload significantly influences job-related stress. Employees who experience an excess of responsibilities often demonstrate reduced efficiency and subpar performance. However, a minor performance improvement is observed with moderate role overload, suggesting that a certain stress level can benefit performance.
(Adiguzel & Kucukoglu, 2019)	Work stress, role conflict, job insecurity, organizational culture	White-collar employees working in different departments of different companies	A certain amount of positive stress motivates employees, increases job satisfaction, and supports employee performance and development.
(Rahayu & Hidayat, 2021)	Role conflict, employee performance, job stress	Employees of the Regional Financial and Asset Management Office in Yogyakarta, Indonesia	Role conflict negatively affects employee performance. Role conflict positively influences job stress. Job stress negatively impacts employee performance. Role conflict has a negative effect on employee performance through the mediation of job stress.
(Rangrez et al., 2022)	Role conflict, role ambiguity, job insecurity, role overload, turnover	Employees of start-up companies in India	Role overload, conflict, and ambiguity directly correlate with increased job stress. Job insecurity is a partial mediator

	intention, job stress		in the link between job stress and aspects such as role conflict, role ambiguity, role overload, and the intention to leave the job.
(Ashford et al., 1989)	Organizational change, role ambiguity, role conflict, locus of control, job insecurity	Employees from a variety of organizations in the northeastern United States	Organizational changes, role ambiguity, and external locus of control are positively associated with job insecurity. However, role conflict is unrelated to job insecurity.
(Blackmore & Kuntz, 2011)	Organizational support, perceived employability, role ambiguity, role overload, job insecurity	Employees from around New Zealand involved in a restructuring process	A substantial inverse correlation exists between the excess of responsibilities in a role, and the sense of insecurity in one's job, but role ambiguity is unrelated to perceptions of job insecurity.
(Keim et al., 2014)	Predictors of job insecurity, including locus of control, role ambiguity, conflict, job insecurity	Samples from other studies included in this review	Job insecurity is related to higher amounts of role ambiguity. Individuals who lack clarity regarding their job responsibilities and objectives tend to experience increased anxiety about maintaining employment. Significant role conflict is related to greater job insecurity.
(Safaria, 2014)	Leadership practices, role ambiguity, role conflict, job stress	Academic staff from Jogjakarta, Indonesia	The relationship between leadership practices, role ambiguity, and role conflict is directly and significantly linked to job insecurity. Role conflict and ambiguity are directly and significantly related to job stress.
(Inayati & Apriliya, 2017)	Work-family conflict, job insecurity, organizational commitment	Employees of PT. Mitra Kabel Indonesia in Surabaya	Job insecurity has a positive and significant impact on the role of stress (role ambiguity, role conflict, and role overload).
(Adiguzel & Kucukoglu, 2019)	Work stress, role conflict, job insecurity, organizational culture	White-collar employees in Turkey	Job insecurity and role conflict have a negative significant relationship.
(Cicei, 2012)	Occupational stress, organizational commitment	Employees from five public organizations in Romania	Strong negative associations have been observed between work-related stress and emotional commitment and

			commitment to staying with the job.
(Kafashpoor et al., 2014)	Job stress, turnover intention, job satisfaction, affective commitment	Nurses in Mashhad's public hospitals	A direct and adverse correlation was observed between job stress and employees' emotional commitment.
(Nart & Batur, 2014)	Job stress, organizational commitment, job performance	Elementary school educators in the South Marmara Region of Turkey	Job-related stress exhibited minimal influence on continuance and normative commitment, with no discernible impact on affective commitment. Additionally, no correlation was observed between job stress and the job performance of Turkish primary lecturers.
(Özgür et al., 2014)	Work-family conflict, job stress, organizational commitment, job performance	Turkish primary lecturers	Work-family conflict has a significant adverse impact on job stress and a somewhat lesser impact on organizational commitment. Job stress is associated with a detrimental effect on organizational commitment.
(Alipour & Kamaee Monfared, 2015)	Job stress, organizational commitment	Nurses working in the hospitals of Behbahan in Iran	A notable negative correlation exists between workplace stress and an individual's organizational commitment. Workplace stress is inversely related to affective, normative, and continuance commitment.
(Bhatti et al., 2016)	Job stress, organizational commitment	Employees of AL-Falha Bank, Allied Bank, Faysal Bank	There is a clear and substantial correlation between workplace stress and organizational dedication. Stress significantly diminishes an employee's allegiance to the company.
(Ruzungunde et al., 2016)	Job stress, components of organizational commitment	Healthcare personnel in the Eastern Cape Province of South Africa	Work-related stress weakens organizational commitment, except for those with strong normative commitment, who remain resilient. Affective and continuance commitment decline as stress increases.

Appendix B: Questionnaire



Dear Participant,

This survey is carried out as a research requirement for Doctor of Philosophy (Management) at Universiti Malaysia Sarawak (UNIMAS). Thank you for taking the time to assist with this research study. This study aims to explore **The Inter-Relationship Between Role Stressors on Job Stress and Organizational Commitment: Job Insecurity as a Moderator, among contract-based university lecturers in Jiangsu Province, China.**

Completing this questionnaire will take approximately **15 to 20 minutes** of your time.

Your Rights and Privacy:

- ☒ Participation in this survey is entirely **voluntary**.
- ☒ Your responses will remain **confidential and anonymous**.
- ☒ You have the right to withdraw at any time **without any consequence**.
- ☒ The purpose of this study is **strictly academic**.

The findings will contribute to improving our understanding of stress factors and organizational commitment among university lecturers.

Your insights are invaluable in helping us develop strategies to improve workplace policies in the academic sector.

SECTION A: DEMOGRAPHIC INFORMATION

(Please mark [✓] the appropriate option or fill in the blanks where necessary.)

Gender

☐ Male

☐ Female

☐ Other (Please specify): _____

Age Group

☐ 20 – 30 years

☐ 31 – 40 years

☐ 41 – 50 years

☐ Above 50 years

Highest Educational Qualification

☐ Bachelor's Degree

☐ Master's Degree

☐ Ph.D.

Monthly Salary (RMB)

☐ Below 5,000

☐ 5,000 – 10,000

☐ 11,000 – 15,000

☐ 16,000 – 20,000

☐ Above 20,000

SECTION A: ROLE STRESSORS

(Please indicate your level of agreement with the following statements.)

Scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Somewhat Disagree, 4 = Neutral, 5 =

Somewhat Agree, 6 = Agree, 7 = Strongly Agree

Role Ambiguity

#	Statement	1	2	3	4	5	6	7
RA1	I feel secure about how much authority I have.	☐	☐	☐	☐	☐	☐	☐
RA2	Clear, planned goals and objectives exist for my job.	☐	☐	☐	☐	☐	☐	☐
RA3	I know that I have divided my time properly.	☐	☐	☐	☐	☐	☐	☐
RA4	I know what my responsibilities are.	☐	☐	☐	☐	☐	☐	☐
RA5	I know exactly what is expected of me.	☐	☐	☐	☐	☐	☐	☐
RA6	Explanation is clear of what has to be done.	☐	☐	☐	☐	☐	☐	☐

Role Overload

#	Statement	1	2	3	4	5	6	7
RO1	I have to do things that I do not really have the time and energy for.	☐	☐	☐	☐	☐	☐	☐
RO2	There are too many demands on my time.	☐	☐	☐	☐	☐	☐	☐
RO3	I need more hours in the day to do all the things that are expected of me.	☐	☐	☐	☐	☐	☐	☐
RO4	I cannot ever seem to catch up.	☐	☐	☐	☐	☐	☐	☐
RO5	I do not ever seem to have any time for myself.	☐	☐	☐	☐	☐	☐	☐
RO6	I seem to have to overextend myself in order to be able to finish everything I have to do.	☐	☐	☐	☐	☐	☐	☐
RO7	I feel I have to do things hastily and maybe less carefully in order to get everything done.	☐	☐	☐	☐	☐	☐	☐
RO8	I just can't find the energy in me to do all the things expected of me.	☐	☐	☐	☐	☐	☐	☐

Role Conflict

#	Statement	1	2	3	4	5	6	7
RC1	I have to do things that should be done differently.	☐	☐	☐	☐	☐	☐	☐
RC2	I receive an assignment without any guidance to complete it.	☐	☐	☐	☐	☐	☐	☐
RC3	I have to break the rule or policy in order to carry out an assignment.	☐	☐	☐	☐	☐	☐	☐
RC4	I work with two or more groups who operate quite differently.	☐	☐	☐	☐	☐	☐	☐
RC5	I receive incompatible requests from two or more people.	☐	☐	☐	☐	☐	☐	☐
RC6	When I do things, only one person accepts it, and the others do not.	☐	☐	☐	☐	☐	☐	☐

Job Insecurity

#	Statement	1	2	3	4	5	6	7
JI1	I am worried about having to leave my job before I would like to.	☐	☐	☐	☐	☐	☐	☐
JI2	There is a risk that I will have to leave my present job in the month or year to come.	☐	☐	☐	☐	☐	☐	☐
JI3	I feel uneasy about losing my job in the near future.	☐	☐	☐	☐	☐	☐	☐
JI4	My future career opportunities in this organization are not favorable.	☐	☐	☐	☐	☐	☐	☐
JI5	I feel that my organization cannot provide me with a good job content in the near future.	☐	☐	☐	☐	☐	☐	☐
JI6	I believe that this organization will not need me in the future.	☐	☐	☐	☐	☐	☐	☐
JI7	My pay development in this organization is not promising.	☐	☐	☐	☐	☐	☐	☐

Job Stress

#	Statement	1	2	3	4	5	6	7
JS1	I feel emotionally drained by my job.	☐	☐	☐	☐	☐	☐	☐
JS2	I feel burned out by my job.	☐	☐	☐	☐	☐	☐	☐
JS3	I feel frustrated at my job.	☐	☐	☐	☐	☐	☐	☐
JS4	I feel tense at my job.	☐	☐	☐	☐	☐	☐	☐
JS5	I lose my appetite because of my job-related problems.	☐	☐	☐	☐	☐	☐	☐
JS6	Job-related problems keep me awake at night.	☐	☐	☐	☐	☐	☐	☐
JS7	Job-related problems make my stomach upset.	☐	☐	☐	☐	☐	☐	☐
JS8	Job-related problems make my heart beat faster than usual.	☐	☐	☐	☐	☐	☐	☐

Affective Commitment

#	Statement	1	2	3	4	5	6	7
AC1	I would be happy to spend the rest of my career with this organization.	☐	☐	☐	☐	☐	☐	☐
AC2	I really feel this organization's problems are my own.	☐	☐	☐	☐	☐	☐	☐
AC3	I feel a strong sense of belonging to my organization.	☐	☐	☐	☐	☐	☐	☐
AC4	I feel "emotionally attached" to this organization.	☐	☐	☐	☐	☐	☐	☐
AC5	I feel like "part of the family" at my organization.	☐	☐	☐	☐	☐	☐	☐
AC6	This organization has a great deal of personal meaning to me.	☐	☐	☐	☐	☐	☐	☐

Normative Commitment

#	Statement	1	2	3	4	5	6	7
NC1	I would not leave my organization right now because I have a sense of obligation to the people in it.	☐	☐	☐	☐	☐	☐	☐
NC2	This organization deserves my loyalty.	☐	☐	☐	☐	☐	☐	☐
NC3	I would feel guilty if I left my organization now.	☐	☐	☐	☐	☐	☐	☐
NC4	It would not be right to break my personal relationships by leaving this organization.	☐	☐	☐	☐	☐	☐	☐
NC5	I think it is necessary to show loyalty to the organization.	☐	☐	☐	☐	☐	☐	☐

Continuance Commitment

#	Statement	1	2	3	4	5	6	7
CC1	It would be very hard for me to leave my organization right now, even if I wanted to.	☐	☐	☐	☐	☐	☐	☐
CC2	Too much of my life would be disrupted if I decided I wanted to leave my organization right now.	☐	☐	☐	☐	☐	☐	☐
CC3	If I had not already put so much of myself into this organization, I might consider working elsewhere.	☐	☐	☐	☐	☐	☐	☐
CC4	It would be hard for me to get used to a new workplace.	☐	☐	☐	☐	☐	☐	☐
CC5	I feel that it is more difficult to leave this organization over time.	☐	☐	☐	☐	☐	☐	☐

Appendix C: SPSS Output

Demographic Profile of the Respondents

Statistics

	Gender	Age	Recruiting Style	Degree	Salary
N	Valid	305	305	305	305
	Missing	0	0	0	0
Mean		1.47	2.43	1.46	1.65
Median		1.00	2.00	1.00	1.00
Std. Deviation		.500	1.036	.499	.763
Minimum		1	1	1	1
Maximum		2	4	2	3

Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	162	53.1	53.1	53.1
Female	143	46.9	46.9	100.0
Total	305	100.0	100.0	

Age

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	72	23.6	23.6	23.6
2	85	27.9	27.9	51.5
3	94	30.8	30.8	82.3
4	54	17.7	17.7	100.0
Total	305	100.0	100.0	

Degree

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	160	52.5	52.5	52.5
2	91	29.8	29.8	82.3
3	54	17.7	17.7	100.0
Total	305	100.0	100.0	

Salary

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	74	24.3	24.3	24.3
2	92	30.2	30.2	54.4
3	83	27.2	27.2	81.6
4	56	18.4	18.4	100.0
Total	305	100.0	100.0	

Distribution of Usable Responses by University (N = 305)

University	Frequency	Percent
Yancheng Institute of Technology	51	16.72%
Suzhou University of Science and Technology	51	16.72%
Huaiyin Institute of Technology	51	16.72%
Nanjing Institute of Technology	51	16.72%
Jiangsu Institute of Technology	51	16.72%
Jiangsu Ocean University	50	16.39%
Total	305	100.00%

Mean and Standard Deviation for the Overview of the Variables

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
RA1	305	1	7	4.87	2.066
RA2	305	1	7	4.93	2.001
RA3	305	1	7	4.91	2.018
RA4	305	1	7	4.97	2.000
RA5	305	1	7	4.87	1.995
RA6	305	1	7	4.94	1.992
RO1	305	1	7	4.84	2.054
RO2	305	1	7	4.90	2.083
RO3	305	1	7	4.86	2.070
RO4	305	1	7	4.82	2.028
RO5	305	1	7	4.83	1.985
RO6	305	1	7	4.87	2.060
RO7	305	1	7	4.90	1.950
RO8	305	1	7	4.90	1.996
RC1	305	1	7	4.87	2.003
RC2	305	1	7	4.85	1.982
RC3	305	1	7	4.82	1.952
RC4	305	1	7	4.77	2.006
RC5	305	1	7	4.90	2.000
RC6	305	1	7	4.87	2.016
JI1	305	1	7	4.79	1.979
JI2	305	1	7	4.81	1.965
JI3	305	1	7	4.90	2.000
JI4	305	1	7	4.86	1.960
JI5	305	1	7	4.78	1.973
JI6	305	1	7	4.82	2.061
JI7	305	1	7	4.92	1.997
JS1	305	1	7	5.00	2.031
JS2	305	1	7	4.86	2.043
JS3	305	1	7	4.81	1.987
JS4	305	1	7	4.72	1.970
JS5	305	1	7	4.88	2.030
JS6	305	1	7	4.88	2.045
JS7	305	1	7	4.91	2.096
JS8	305	1	7	4.94	1.993

AC1	305	1	7	4.87	1.930
AC2	305	1	7	4.90	2.003
AC3	305	1	7	4.81	2.022
AC4	305	1	7	4.89	1.980
AC5	305	1	7	4.86	2.016
AC6	305	1	7	4.83	1.986
NC1	305	1	7	4.82	2.015
NC2	305	1	7	4.77	2.023
NC3	305	1	7	4.90	2.053
NC4	305	1	7	4.96	2.027
NC5	305	1	7	4.85	2.021
CC1	305	1	7	4.82	2.052
CC2	305	1	7	4.82	2.052
CC3	305	1	7	4.88	2.060
CC4	305	1	7	4.95	2.011
CC5	305	1	7	4.88	1.999
Valid N (listwise)	305				

Appendix D: WarpPLS 8.0 Output

Measurement Items Model

Variables	Composite Reliability	Average Variance Extraction (AVE)	R Square	Cronbach's Alpha
Role Ambiguity	0.962	0.807		0.952
Role Overload	0.969	0.796		0.963
Role Conflict	0.959	0.795		0.949
Job Insecurity	0.970	0.784		0.954
Job Stress	0.962	0.801	0.778	0.965
Affective Commitment	0.960	0.800	0.591	0.950
Normative Commitment	0.957	0.815	0.329	0.943
Continuance Commitment	0.958	0.822	0.351	0.946

Estimated Correlations Among Latent Variables

	RA	RC	RO	JS	JI	AC	NC	CC
RA								
RC	0.271							
RO	0.244	0.279						
JS	-0.275	-0.249	-0.244					
JI	-0.268	-0.255	-0.241	0.967				
AC	-0.316	-0.320	-0.311	0.743	0.756			
NC	-0.282	-0.305	-0.333	0.663	0.667	0.614		
CC	-0.324	-0.284	-0.252	0.820	0.827	0.685	0.580	

Cross Loadings

Item(s)	RA	RO	RC	JI	JS	AC	NC	CC
RA_1	0.894	0.024	-0.012	-0.098	0.116	-0.024	-0.039	-0.023
RA_2	0.901	0.018	0.023	-0.02	0.019	-0.019	0.006	0.008
RA_3	0.905	-0.031	-0.035	0.198	-0.193	0.026	0.046	-0.05
RA_4	0.896	-0.013	0.055	-0.011	-0.033	0.029	-0.013	0.008
RA_5	0.902	0.006	-0.028	-0.326	0.275	0.006	0.001	0.059
RA_6	0.893	-0.003	-0.003	0.257	-0.185	-0.019	-0.039	-0.023
RO_1	-0.021	0.896	0.023	0.103	-0.154	-0.005	-0.001	-0.066
RO_2	0.02	0.906	-0.011	-0.248	0.278	-0.004	0.006	-0.01
RO_3	0.049	0.894	-0.031	-0.092	0.085	-0.009	-0.043	-0.016
RO_4	-0.02	0.881	0.023	0.337	-0.369	-0.008	0.014	0.03
RO_5	0.008	0.891	0.009	-0.153	0.156	0.087	0.003	0.005
RO_6	0.002	0.889	0.056	0.099	-0.064	-0.032	-0.058	0.008
RO_7	0.032	0.889	-0.036	-0.124	0.135	-0.029	0.028	-0.007
RO_8	-0.071	0.892	-0.032	0.084	-0.075	0	0.05	0.057
RC_1	-0.015	0.004	0.902	-0.108	0.095	-0.026	0.014	0.001
RC_2	0.016	0.044	0.889	0.215	-0.245	0.016	0.001	-0.007
RC_3	0.039	-0.035	0.896	-0.205	0.158	0.044	-0.011	0.067
RC_4	-0.026	0.005	0.887	0.309	-0.314	0.03	-0.013	-0.105
RC_5	-0.018	0.011	0.889	-0.105	0.178	-0.036	0.039	-0.012
RC_6	0.005	-0.029	0.887	-0.103	0.124	-0.029	-0.031	0.055
JI_1	-0.053	0.001	0.051	0.888	-0.222	0.01	0.046	-0.056
JI_2	0.051	-0.043	0.003	0.883	-0.214	-0.028	0.019	0.025
JI_3	-0.039	0.066	0.024	0.874	0.042	-0.011	-0.031	-0.035
JI_4	0	0.029	-0.007	0.887	0.309	-0.018	0.023	0.034
JI_5	0.005	-0.001	0.02	0.887	-0.058	0.045	-0.056	0.004
JI_6	0.019	-0.045	-0.063	0.886	0.313	-0.01	0.05	0.017
JI_7	0.017	-0.007	-0.029	0.891	-0.169	0.012	-0.05	0.01
JS_1	0.035	0.019	0.028	-0.046	0.907	-0.03	0.032	-0.062
JS_2	-0.005	0.016	-0.014	-0.237	0.881	0.02	-0.031	0.012
JS_3	-0.013	-0.03	0.057	-0.249	0.895	0.007	-0.064	0.027
JS_4	-0.015	-0.03	0.011	-0.219	0.897	0.002	-0.033	0.092
JS_5	-0.039	0.018	-0.003	0.359	0.896	-0.023	0.041	-0.082
JS_6	-0.015	0.055	-0.026	0.634	0.893	-0.03	0.059	-0.035
JS_7	0.03	-0.02	-0.069	-0.089	0.897	0.019	-0.028	-0.016
JS_8	0.022	-0.027	0.017	-0.153	0.894	0.036	0.024	0.064
AC_1	-0.024	0.027	0.022	-0.024	0.027	0.882	-0.044	0.013
AC_2	-0.019	-0.003	-0.014	-0.019	-0.003	0.897	-0.003	0.017
AC_3	0.026	0.006	-0.025	0.026	0.006	0.891	0.021	-0.001
AC_4	0.029	-0.052	0.026	0.029	-0.052	0.905	-0.011	-0.049
AC_5	0.006	0.018	0.024	0.006	0.018	0.891	0.034	0.012

AC_6	-0.019	0.004	-0.033	-0.019	0.004	0.9	0.003	0.008
NC_1	-0.039	0.022	-0.028	-0.039	0.022	-0.007	0.905	-0.012
NC_2	0.006	0.027	-0.025	0.006	0.027	0.057	0.9	-0.014
NC_3	0.046	-0.032	0.044	0.046	-0.032	0.008	0.89	-0.071
NC_4	-0.013	0.024	-0.02	-0.013	0.024	-0.032	0.912	0.01
NC_5	0.001	-0.042	0.03	0.001	-0.042	-0.026	0.907	0.085
CC_1	-0.023	-0.016	-0.03	-0.023	-0.016	0.002	0.003	0.91
CC_2	0.008	0.003	0.004	0.008	0.003	0.003	0.025	0.911
CC_3	-0.05	-0.002	-0.001	-0.05	-0.002	-0.031	0.008	0.913
CC_4	0.008	-0.007	0	0.008	-0.007	0.03	-0.007	0.907
CC_5	0.059	0.022	0.027	0.059	0.022	-0.004	-0.029	0.891

Note. RA: Role Ambiguity, RO: Role Overload, RC: Role Conflict, JI: Job Insecurity, JS: Job Stress, AC: Affective Commitment, NC: Normative Commitment, CC: Continuance Commitment.

Outer Loadings

Item(s)	RA	RO	RC	JI	JS	AC	NC	CC
RA_1	0.894							
RA_2	0.901							
RA_3	0.905							
RA_4	0.896							
RA_5	0.902							
RA_6	0.893							
RO_1		0.896						
RO_2		0.906						
RO_3		0.894						
RO_4		0.881						
RO_5		0.891						
RO_6		0.889						
RO_7		0.889						
RO_8		0.892						
RC_1			0.902					
RC_2			0.889					
RC_3			0.896					
RC_4			0.887					
RC_5			0.889					
RC_6			0.887					
JI_1				0.888				
JI_2				0.883				
JI_3				0.874				
JI_4				0.887				
JI_5				0.887				
JI_6				0.886				
JI_7				0.891				
JS_1					0.907			
JS_2					0.881			
JS_3					0.895			
JS_4					0.897			
JS_5					0.896			
JS_6					0.893			
JS_7					0.897			
JS_8					0.894			
AC_1						0.882		
AC_2						0.897		
AC_3						0.891		
AC_4						0.905		
AC_5						0.891		

AC 6						0.9		
NC 1							0.905	
NC 2							0.9	
NC 3							0.89	
NC 4							0.912	
NC 5							0.907	
CC 1								0.91
CC 2								0.911
CC 3								0.913
CC 4								0.907
CC 5								0.891

Note. RA: Role Ambiguity, RO: Role Overload, RC: Role Conflict, JI: Job Insecurity, JS: Job Stress, AC: Affective Commitment, NC: Normative Commitment, CC: Continuance Commitment.

T-ratio for loadings

	RA	RO	RC	JI	JS	AC	NC	CC
RA1	17.939							
RA2	18.106							
RA3	18.206							
RA4	17.987							
RA5	18.117							
RA6	17.930							
RO1		17.979						
RO2		18.210						
RO3		17.937						
RO4		17.647						
RO5		17.883						
RO6		17.820						
RO7		17.833						
RO8		17.895						
RC1			18.137					
RC2			17.836					
RC3			17.993					
RC4			17.786					
RC5			17.825					
RC6			17.781					
JI1				17.805				
JI2				17.692				
JI3				17.487				
JI4				17.790				
JI5				17.774				
JI6				17.766				
JI7				17.884				
JS1					18.251			
JS2					17.652			
JS3					17.978			
JS4					18.005			
JS5					17.994			
JS6					17.911			
JS7					18.013			
JS8					17.953			

AC1						13.509		
AC2						14.372		
AC3						13.455		
AC4						14.144		
AC5						13.945		
AC6						14.788		
NC1							17.039	
NC2							17.420	
NC3							16.916	
NC4							15.324	
NC5							16.533	
CC1								17.168
CC2								17.162
CC3								16.227
CC4								17.900
CC5								17.558

SEM Analysis in WarpPLS 8.0

