JOB STRESS, INCENTIVES, AND PERFORMANCE: A STUDY OF UNIVERSITY LECTURERS IN A RESOURCE-CONSTRAINED REGION OF CHINA

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ARTICLE HISTORY
Received: 6 January 2025 **Revised:** 20 January 2025 **Published:** 28 January 2025

ABSTRACT

This study applies Yerkes-Dodson and performance management theories to analyze the effects of job stress and incentive systems on lecturer performance at Longdong University, Gansu, China. The data were collected from 508 lecturers by using structured questionnaires. Descriptive statistics and multiple regression analysis were employed to analyze the data. The findings reveal that organizational and personal job stress significantly impact performance, with personal stress contributing to a 15.3% variance in job performance. Incentive systems, including promotions, rewards, and assessments, positively influence performance, with promotion incentives accounting for a 22.8% improvement. These results underscore the need for tailored stress management and incentive optimization strategies to enhance lecturer performance and support institutional development in resource-constrained higher education contexts.

Keywords: Job Stress, Incentive System, Job Performance

CITATION INFORMATION: Yuan, P., & Kongruang, C. (2025). Job Stress, Incentives, and Performance: A Study of University Lecturers in a Resource-Constrained Region of China. *Procedia of Multidisciplinary Research, 3*(1), 5.

INTRODUCTION

University lecturers play a pivotal role in shaping the quality of higher education, yet they often face significant challenges that affect their job performance. In China, the increasing imbalance between research and teaching responsibilities, coupled with an overemphasis on quantitative assessment metrics, has exacerbated job stress among lecturers (Dima, Meseșan Schmitz, & Șimon, 2021). This problem is particularly acute in less developed regions, where resource constraints, heavy workloads, and limited opportunities for professional growth create unique institutional challenges (Bell & Ofori, 2020). Such stressors not only hinder lecturers' ability to deliver high-quality education but also impede their research output, ultimately affecting institutional development.

Longdong University, located in Qingyang, Gansu Province, serves as a representative case for exploring these dynamics. As the only provincial full-time undergraduate institution in a resource-constrained region, its lecturers face a dual burden of meeting both teaching and research expectations with minimal support (Liu & Kong, 2017). Despite these challenges, studies specifically addressing how job stress and incentive systems interact to influence lecturer performance in such contexts remain limited. Existing research predominantly focuses on developed regions or overlooks the nuanced challenges faced by lecturers in underdeveloped areas (Li & Khattak, 2023).

This study addresses this research gap by applying Yerkes-Dodson theory and performance management theory to investigate the relationship between job stress, incentive systems, and lecturer performance. By analyzing data from 508 lecturers at Longdong University, this study not only quantifies the effects of various stressors and incentives but also provides actionable recommendations for managing stress and optimizing incentives to enhance performance. These findings contribute to the broader understanding of lecturer performance dynamics in resource-constrained regions and offer practical insights for improving institutional outcomes in similar contexts.

LITERATURE REVIEWS

Job Performance

Job performance is a multidimensional structure that includes task performance direct outputs of teaching and research and contextual performance including collaborative and innovative behaviors that contribute to the broader organizational environment (Kalogiannidis, 2020). For university lecturers, task performance includes providing high-quality education and generating impactful research, while situational performance includes mentoring students, participating in interdisciplinary collaborations, and contributing to institutional development. Effective job performance is influenced by individual abilities, organizational support, and external influences such as socioeconomic conditions (Ridlo, Wardahana, & Jessica, 2021).

Job Stress and Performance

Job stress, defined as the strain from mismatched demands and resources, has both positive and negative effects. Yerkes-Dodson theory suggests moderate stress enhances productivity, while excessive stress leads to burnout. Lecturers face stress from organizational (e.g., workloads, evaluations), personal (e.g., work-life balance), and social factors (e.g., societal expectations). Prior studies highlight stress's dual impact but lack detailed analysis of specific stressors (Wartono, 2017).

Incentive Systems and Performance

Incentive systems, including financial (e.g., bonuses) and non-financial rewards (e.g., recognition), align individual efforts with institutional goals. While financial incentives provide immediate motivation, promotion and recognition incentives yield long-term benefits but are often constrained in underdeveloped areas (Fang, 2019). Research reveals inconsistent findings on the effectiveness of different incentive types (Hill & Jones, 2020).

Integration of Job Stress, Incentives, and Job Performance

In less developed areas such as Qingyang, Gansu Province, the interaction between job stress, incentive system and job performance is particularly significant. Lecturers here face unique pressures compared to their counterparts in developed regions because of limited resources, limited research opportunities and a heavier teaching load (Wu & Zhuo, 2024). Balancing stress management and incentive optimization is the key to improving job performance. Stressors must be managed within "optimal functional zones," as described in Yerkes-Dodson theory, while incentive systems should be tailored to the teacher's career goals and institutional needs (Kim, Shin, & Hwang, 2024). By integrating these strategies, universities can foster a supportive environment that promotes excellence in teaching and research.

Few studies examine the combined impact of stress and incentives on performance, particularly in resource-limited universities. Existing research often overlooks the differential effects of stressors on task and contextual performance or how incentives mitigate stress. This study addresses these gaps, focusing on Longdong University, a resource-constrained institution, to provide actionable insights for improving lecturer performance. Based on the review literature, the conceptual framework can be drawn as Figure 1.

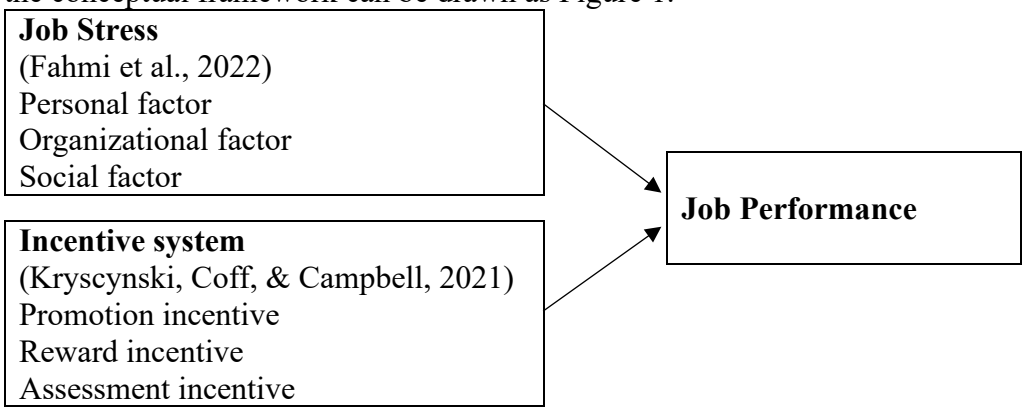

Figure 1 Conceptual Framework

On the basis of literature review and conceptual framework, this study proposes the following research hypotheses:

H1: Job Stress is statistically associated with the job performance of lecturers at Longdong University of Gansu Province in Qingyang City.

H2: The incentive system is statistically associated with the job performance of lecturers in Longdong University of Gansu Province in Qingyang City.

RESEARCH METHODOLOGY

This study employs a quantitative research design to investigate the effects of job stress and incentive systems on the job performance of university lecturers at Longdong University, Qingyang, Gansu Province. A census method was adopted to include all 524 lecturers, ensuring comprehensive coverage and eliminating sampling bias, which is essential given the small and homogeneous population size. The use of the census method is particularly justified in this study as it provides a complete representation of the population, minimizing the risk of underrepresentation and ensuring the findings are both precise and generalizable to the entire lecturer population. Unlike probability sampling, which selects a subset of individuals, the census method captures the perspectives of all lecturers, offering a more nuanced understanding of the effects of job stress and incentive systems in this specific institutional setting (Miao, Bozionelos, Zhou, & Newman, 2022). Data were collected using a structured questionnaire developed based on a literature review, encompassing four sections: demographic information, job stress (personal, organizational, and social factors), incentive

systems (promotion, reward, and assessment incentives), and job performance (task and contextual performance). To ensure content validity, three experts reviewed the questionnaire using the Index of Item-Objective Congruence (IOC), and a pilot study with 30 participants yielded a Cronbach's Alpha coefficient of 0.87, indicating high reliability (Ridlo, Wardahana, & Jessica, 2021). A total of 508 valid responses were obtained (97% response rate), with items rated on a 6-point Likert scale to reduce central tendency bias. Data analysis was conducted using SPSS 27.0, incorporating descriptive statistics, reliability testing, correlation analysis, and multiple regression analysis. The regression model examined the effects of personal, organizational, and social stressors, along with promotion, reward, and assessment incentives, on job performance. Diagnostics confirmed linearity, normality, homoscedasticity, and no multicollinearity, ensuring robust results. Ethical considerations, including informed consent and confidentiality, were strictly adhered to. This methodology provides a valid and reliable framework for exploring the interplay between job stress, incentives, and performance in resource-constrained settings.

RESEARCH RESULTS

Respondents' Profiles and Studied Variables

Based on the basic information such as gender, age, highest level of education, and total working experience in the information of this survey, it is analyzed as follows:

Table 1 Demographic Data

Question	**Frequency**	**Percentage**
1) Gender		
Male	266	52.362%
Female	242	47.638%
2) Age group		
30 years and under	53	10.433%
31-35 years	103	20.276%
36-40 years	96	18.898%
41-45 years	92	18.110%
46 years and over	164	32.283%
3) Marital status		
Married	348	68.504%
Single	160	31.496%
Other…….	0	0
4) Highest level of education		
Undergraduate or below	56	11.027%
Master's degree	404	79.528%
Doctoral degree	48	9.445%
5) Monthly income		
Below 5,000 RMB	114	22.441%
5,001 RMB-7,000 RMB	176	34.646%
7,001 RMB-9,000 RMB	170	33.465%
9,001 RMB and above	48	9.448%
6) Working experience		
5 years and below	62	12.208%
6-10 years	175	34.449%
11-15 years	172	33.858%
16-20 years	45	8.525%
Above 20 years	54	10.960%

Table 1 shows that the respondents are predominantly experienced and highly educated lecturers. The gender distribution is relatively balanced, with 52.4% male and 47.6% female. Most respondents are over 45 years old (32.3%) or in the 31–35 age group (20.3%), and the majority are married (68.5%). In terms of education, 79.5% hold a master's degree, while 9.4% have a doctoral degree. Monthly income is concentrated in the 5,001–9,000 RMB range (68.1%), and work experience is primarily between 6–15 years (68.3%). These characteristics reflect a mid-career academic population, offering a diverse and representative perspective of the faculty at the surveyed institution.

Descriptive statistic on job stress, incentive system and job performance

Table 2 Descriptive statistics of job stress, incentive systems, and job performance

Question	Mean	Standard deviation	Level of perception
Personal factor	4.072	1.626	Somewhat agree
Organizational factor	4.101	1.642	Somewhat agree
Social factor	4.060	1.641	Somewhat agree
Promotion incentive	4.026	1.606	Somewhat agree
Reward incentive	4.043	1.565	Somewhat agree
Assessment incentive	4.065	1.534	Somewhat agree
Task performance	3.934	1.614	Somewhat agree
Contextual performance	3.981	1.608	Somewhat agree

Table 2 shows that respondents generally exhibit a positive perception towards job stress, incentive systems, and job performance, with ratings falling within the "Somewhat Agree" range. Personal, organizational, and social factors of job stress were recognized as influential, alongside promotion, reward, and assessment incentives, which were seen as key motivators. Both task and contextual performance received similar ratings, reflecting the dual importance of teaching and research responsibilities. The findings highlight that workload, institutional support, and societal expectations significantly impact performance, while incentives such as career advancement, financial rewards, and fair evaluations enhance motivation. These results emphasize the need for effective stress management and incentive strategies to optimize job performance in resource-limited settings.

Correlation analysis and multiple regression analysis

Table 3 Relationship between job stress and incentive system and job performance

		X1.1	X1.2	X1.3	X2.1	X2.2	X2.3	Y
X1.1	personal factor	1						
X1.2	organizational factor	0.724**	1					
X1.3	social factor	0.724**	0.691**	1				
X2.1	promotion incentive	0.716**	0.717**	0.678**	1			
X2.2	reward incentive	0.740**	0.740**	0.718**	0.666**	1		*
X2.3	assessment incentive	0.701**	0.721**	0.687**	0.696**	0.705**	1	
Y	Job performance	0.753**	0.734**	0.724**	0.759**	0.733**	0.743**	1

**. The correlation is significant at the 0.01 level (two-tailed).

Table 3 shows strong positive correlations between job stress factors, incentive systems, and job performance, all statistically significant at the 0.01 level. Among stress factors, personal stress had the strongest positive association with job performance (r = 0.753), followed by organizational (r = 0.734) and social factors (r = 0.724). For incentive systems, promotion incentives showed the strongest relationship (r = 0.759), followed by assessment incentives (r = 0.743) and reward incentives (r = 0.733). These findings highlight the importance of

managing stress within optimal levels and optimizing promotion incentives to enhance lecturer performance effectively.

Table 4 Multiple regression analysis test

Model	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Regression	488.765	6	81.461	225.560	0.000b
Residual	180.935	501	0.361		
Total	**669.700**	**507**			

a. Dependent variable: Y
b. Predictors: (Constant), X2.3, X2.2, X2.1, X1.3 X1.2, X1.1

Model		**Unstandardized Coefficients**	**Standardized Coefficients**	**Tolerance**	**VIF**
		B	**Beat**		
Constant	0.341		0.001		
X1.1 personal factor	0.153	0.172	0.000	0.315	3.178
X1.2 organizational factor	0.089	0.102	0.013	0.318	3.142
X1.3 social factor	0.116	0.132	0.001	0.361	2.772
X2.1 promotion incentive	0.228	0.253	0.000	0.367	2.725
X2.2 reward incentive	0.126	0.134	0.001	0.323	3.095
X2.3 assessment incentive	0.181	0.188	0.000	0.358	2.796
R^2= 0.730, Adjust R^2= 0.727, F =225.560, Sig=.0.000					

The multiple regression analysis (Table 4) revealed that the model was statistically significant ($F = 225.56$, $p < 0.001$) with an R-squared value of 0.727, explaining 72.7% of the variance in job performance. Among the predictors, promotion incentives had the strongest positive impact on job performance ($B = 0.228$, $\beta = 0.253$, $p < 0.001$), followed by assessment incentives ($B = 0.181$, $\beta = 0.188$, $p < 0.001$) and reward incentives ($B = 0.126$, $\beta = 0.134$, $p < 0.01$). Personal ($B = 0.153$, $\beta = 0.172$, $p < 0.01$) and social factors ($B = 0.116$, $\beta = 0.132$, $p < 0.01$) also showed significant positive effects, while organizational factors had a weaker but still significant influence ($B = 0.089$, $\beta = 0.102$, $p = 0.013$). These findings highlight the critical role of promotion incentives and stress management, particularly personal and social factors, in enhancing job performance.

Table 5 Hypothesis test results

Research Hypotheses	**Result**
H1: Job Stress is statistically associated with the job performance of lecturers at Longdong University of Gansu Province in Qingyang City.	Supported
H2: The incentive system is statistically associated with the job performance of lecturers in Longdong University of Gansu Province in Qingyang City.	Supported

Hypothesis testing confirms that both work pressure and incentive system have significant effects on work performance, and incentive system has a greater impact. Promotion incentive is the most influential factor, while personal and social pressure factors have a positive impact on performance under effective management. To improve lecturers' performance, universities should optimize incentive systems (such as promotions, awards, evaluations) and implement stress management strategies to maintain productive stress levels and ultimately promote institutional development.

DISCUSSION & CONCLUSION

This study provides critical insights into the interplay between job stress, incentive systems, and job performance among university lecturers in a resource-constrained setting, confirming both research hypotheses: H1, job stress is statistically associated with job performance, and H2, incentive systems are statistically associated with job performance. The findings highlight that moderate stress, particularly from organizational and personal factors, enhances performance by fostering focus and motivation, consistent with the Yerkes-Dodson theory. However, excessive stress, driven by heavy workloads and limited institutional support, negatively impacts teaching and research performance. Incentive systems, especially promotion and reward incentives, were found to significantly improve performance, with promotion incentives contributing to a 22.8% improvement. However, rigid assessment systems showed limited effectiveness, highlighting the need for more balanced and flexible evaluation practices.

The study has both theoretical and practical implications. Theoretically, it extends performance management theory by integrating stress management and incentive optimization, offering a nuanced understanding of their combined effects in resource-constrained contexts. Practically, it provides actionable recommendations for university administrators and policymakers: Implement targeted stress management strategies to mitigate excessive stress, such as reducing workloads and providing support systems. Optimize incentive systems by balancing financial rewards with professional recognition and revising promotion criteria to value teaching and research equally. Revise evaluation systems to encourage innovation in both teaching and research through fair and balanced assessments. Invest in professional development programs to equip lecturers with resilience and adaptive skills.

While the findings align with prior studies, they emphasize the unique stressors and challenges faced by lecturers in underdeveloped regions, such as the disproportionate burden of organizational stress and the limited impact of rigid assessment systems (Ridlo, Wardahana, & Jessica, 2021). These differences underscore the importance of tailoring strategies to specific institutional and cultural contexts.

However, the study has limitations. Its cross-sectional design restricts causal inferences, and its focus on a single institution limits the generalizability of the findings. Future research should employ longitudinal designs, include diverse institutions, and explore mediating factors such as cultural and technological influences. Moreover, examining the impact of lecturer performance on student outcomes would provide a more holistic understanding of performance dynamics.

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Data Availability Statement: The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Conflicts of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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