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A STUDY ON THE POSITIVE AND NEGATIVE IMPACTS OF UNIVERSITY "TENURE TRACK" SYSTEM ON YOUNG TEACHERS' ACADEMIC PRODUCTIVITY IN CHINA

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ABSTRACT

This study aims to examine the dual (both positive and negative) effects of China's tenure-track employment system on the academic productivity of young university teachers. Building on prior research that highlights the challenges associated with the tenure-track system (e.g., impacts on well-being), this study seeks to explore how this system influences faculty performance and to identify strategies for mitigating its adverse effects. A quantitative survey approach was adopted, involving 300 young teachers from universities across China. Data were collected באמצעות a structured questionnaire measuring key constructs such as tenure motivation, perceived job insecurity, and workload pressure. Structural equation modeling (SEM) was employed to examine both direct and mediated relationships among the tenure-track system, psychological factors, and academic productivity. The findings indicate that the tenure-track system has both beneficial and detrimental effects. While tenure motivation positively contributes to academic productivity, factors such as fear of failure, job-related anxiety, and excessive workload pressure significantly hinder performance. Mediation analysis further reveals that achievement motivation and job-related anxiety serve as key mechanisms linking institutional factors to academic outcomes. These results underscore the importance of addressing faculty well-being through appropriate policy adjustments. This study provides novel insights into the dual effects of the tenure-track system within the context of Chinese higher education, where institutional structures and cultural factors shape faculty experiences. Unlike previous studies, it integrates quantitative evidence to examine the interplay between institutional arrangements and psychological factors, offering practical implications for enhancing faculty support and academic productivity.

KEYWORDS: Tenure Track System, Performance Based Rewards, Mentor Support, Perceived Job Insecurity, Academic Productivity, Achievement Motivation, Job Related Anxiety.

1. INTRODUCTION

The tenure-track system is a faculty employment mechanism that enables universities to recruit high-quality scholars and evaluate them during a fixed probationary period before granting tenured positions. Since the 1990s, Chinese higher education institutions have gradually adopted a U.S.-style tenure-track system (Wang and Wang, 2024), with the aim of improving institutional performance and academic standards.Under this system, faculty members who meet specified probationary requirements may obtain long-term employment, institutional recognition, and academic freedom. The tenure-track typically consists of three stages—assistant professor, associate professor, and professor—and failure to meet promotion criteria within a limited timeframe may result in contract termination (Xia et al., 2022). In China, the system was first introduced by Tsinghua University in 1993 and later adopted by Peking University in 2003.Despite its formal structure, the implementation of the tenure-track system in China is influenced by a more humanistic institutional context, resulting in relatively flexible enforcement of evaluation criteria. However, prior research indicates that the tenure process remains complex and demanding, particularly for early-career faculty (Gosling et al., 2020). While achieving tenure is considered highly prestigious, many faculty members face challenges due to insufficient preparation for research, teaching, and institutional responsibilities. Studies further suggest that factors such as collaboration, work–life balance, institutional resources, and clear evaluation policies are critical for success in the tenure process. In addition, mentorship support from senior faculty plays an important role in enhancing early-career academics' experience and performance.

At the same time, the tenure-track system is associated with a range of challenges. Empirical evidence shows that early-career teachers often experience confusion, anxiety, and low job satisfaction during the initial stages (Aziz and Butt, 2022). These challenges may not only affect teachers' well-being but also negatively influence student outcomes. In addition, faculty members frequently encounter difficulties related to teaching motivation, classroom management, workload pressure, and interpersonal relationships, as well as communication with stakeholders. Prolonged exposure to such pressures may lead to feelings of insecurity, helplessness, and even burnout.Against this backdrop, it is necessary to examine the dual effects of both motivational and stress-related factors on the academic productivity of young teachers in Chinese universities. Such an analysis can provide a foundation for developing more effective strategies to enhance academic performance and support faculty development.

1.1. Research Aim

The present study aims to analyse the dual effects of the tenure track employment system in Chinese universities by concentrating on the productivity of young teachers.

1.2. Research Objectives

- To investigate the positive and negative aspects of the "tenure track" employment system in Chinese universities on the academic productivity of young teachers- This objective will analyse the positive aspects, like Tenure motivation, Mentorship support, and Performance-based rewards and negative aspects, like Perceived job insecurity, Workload pressure, Fear of failure of the "tenure track" employment system in Chinese universities.
- To identify the motivating factors, like performance-based rewards, mentorship support and tenure motivation and stress factors, like perceived job insecurity, workload pressure and fear of failure affecting the academic productivity of young teachers- This will analyse the motivating and stress factors that affect academic productivity in Chinese universities.
- To evaluate the impact of the tenure track employment system in Chinese universities on the academic productivity of young teachers in China- This will evaluate the impact of independent and dependent variables, along with the mediating roles of achievement motivation and job anxiety.
- To provide recommendations for enhancing the employment practices and thereby the well-being of young teachers in universities in China- This will suggest the recommendations, like stress management, mental health programs, and administrative assistance to enhance employment practices and well-being among young teachers.

2. LITERATURE REVIEW

2.1. The Positive Aspects of the "Tenure Track" Employment System

The study of Agah (2019) explains that the research productivity of the faculty members can be influenced by both intrinsic and extrinsic motivation factors. Institutional expectations and administrative leadership are the two extrinsic factors that influence the productivity of teachers. On the other hand, rewards like financial incentives are also a great motivation for teachers. The intrinsic motivational factor like personal enjoyment was found to improve faculty performance. Beyond that, the study of Xi et al. (2023) even pointed out that the tenure track system is one of the major motivators to increase the number of research outputs for young scholars. This analysis suggests that there is a connection between tenure motivation and academic productivity. Hence, the following hypothesis can be assumed.

H1: Tenure motivation of the tenure track employment system positively associates with academic productivity

The study of Wang and Wang (2024) explains that strong mentorship is necessary for teachers to overcome their challenges during the tenure track. Apart from that, a lack of mentoring in academics is found to affect the productivity of teachers negatively, and they find it difficult to navigate the problems during their academic journey when there is a lack of mentoring. If professional development opportunities and mentoring are present, it can help the young faculty members to succeed in their careers, says Larson et al. (2019). Thus, mentorship support has a positive effect on academic productivity. Hence, the hypothesis given below can be assumed.

H2: Mentorship support of the tenure track employment system positively associates with academic productivity

The rewards can be considered as extrinsic factors that can motivate faculty members to improve their academic productivity. The degree of interest that a researcher will have in order to exhibit higher research performance is directly proportional to the rewards that are offered to the faculty. If the best rewards are given for producing better research outcomes, the faculty tend to make more effort to improve their research performance, says Agah (2019). Similarly, Siekkinen et al. (2024) explain that the reward structure in the tenure track system plays an important role in enhancing academic performance. Therefore, the following hypothesis can be assumed.

H3: Performance-based rewards of the tenure track employment system positively associate with academic productivity

The study of Aziz and Butt (2022) explains that insecurity is one of the predominant problems that are faced by teachers under the tenure track system. Yang et al. (2024) further explain in their study that there is a lot of pressure faced by faculty members in order to obtain tenure, which increases their insecurity as well as anxiety. In addition to that, when the tenure track system is implemented strongly, it can even lead to increasing job insecurity among the faculty members. Similarly, another study by Yang et al. (2024) also points out that teachers who are in a probationary period under the tenure track system are suffering from career insecurity. Therefore, these discussions point out that job insecurity negatively impacts the academic productivity of faculty, and thus, the following hypothesis can be assumed.

H4: Perceived job insecurity of the tenure track employment system negatively associates with academic productivity

One of the prominent factors that affect the academic productivity of young teachers is workload pressure, which eventually leads to burnout and emotional exhaustion. Due to the increasing workload, teachers are forced to spend extra time at universities (Ashcraft et al., 2021). Moreover, the study by Wang (2021) explains that when teachers are forced to work under the tenure track system, it creates huge workloads, which eventually leads to the requirement of having better skills to carry out their daily work. Ashcraft et al. (2021) even mentions that faculties have shared their concerns regarding heavy workloads that discourage them, and these workloads for some people are impossible to attain during their tenure track. Therefore, it can be evaluated the workload pressure is negatively impacting the productivity of teachers, and hence, the hypothesis given below can be assumed.

H5: Workload pressure of the tenure track employment system negatively associates with academic productivity

Fear of failure is another important factor that is affecting the well-being of teachers under the tenure track system. The pressure of failing to achieve positive outcomes within the time frame is increasing stress among faculty, explains Bunds (2021). Similarly, the study by Diascro (2019) pointed out that fear of failure was one of the important problems that academicians faced during their tenure track process. Even the study of Pietilä (2019) pointed out that the chances of failure in the evaluation process create intensive pressure among faculty. Moreover, this pressure of failure also forces people to work harder to secure promotions. Wang and Wang (2024) even say that the teachers who failed to perform well in the universities during their tenure track are considered losers, which is also affecting their well-being. Hence, it can be analysed that the teachers face intense pressure due to the fear of failure, which can eventually affect their productivity and well-

being. Therefore, the hypothesis given below can be assumed.

H6: Fear of failure of the tenure track employment system negatively associate with academic productivity

2.2. Mediating Effect

The study by Agah (2019) points out that rewards are one of the major factors that motivate employees in their tenure track system. Moreover, the study also pointed out that the faculties who have a rank less than that of the professor seemed to be significantly influenced by the rewards that they receive for teaching. This establishes the fact that rewards are a form of motivation that is helping the faculties in enhancing academic productivity. Hence, the following hypothesis can be assumed.

H7: Achievement motivation mediates the relationship between performance-based rewards and academic productivity of young teachers

Mentoring, as per the observation of Prendergast et al. (2019), is considered highly important for a successful academic career. Moreover, the study of Wang and Wang (2024) also identifies the importance of having a good mentorship program or system for the faculties who are under the tenure track system. The support of the faculty is necessary for navigating the challenging periods in the academic life of junior faculty members. Hence, the following hypothesis can be assumed;

H8: Achievement motivation mediates the relationship between mentorship support and academic productivity of young teachers

The observation of Xia et al. (2022) explains that the tenure track system helps enhance job security and thus motivates faculty. Apart from that, the pressure of promotion is also a factor that enhances academic productivity among teachers. The tenure system tends to motivate the academic productivity of young scholars in the view of Yang et al. (2024) and even helps them publish more articles. This mentions that achievement motivation plays an important role in mediating the relationship between tenure motivation and academic productivity. Hence, the following hypothesis can be assumed;

H9: Achievement motivation mediates the relationship between tenure motivation and academic productivity of young teachers

The teachers who are under the tenure track system are facing struggles in survival which increase their anxiety and confusion (Aziz and Butt, 2022). On the other hand, the study of Xi et al. (2023) also mentions that since the requirements of the tenure track system are very high, there is a constant feeling of uncertainty and anxiety among the faculty members, which affects their quality of research. Similarly, Wang and Wang (2024) also observed that there is intense competition between colleagues who are under the tenure track system, which is negatively affecting their relationships and causing powerlessness, anxiety, and insecurity. Similarly, Pietilä (2019) explains that the lack of opportunities for getting a promotion and the lack of long-term employment are leading to job insecurity among young teachers. Hence, the following hypotheses can be assumed;

H10: Job-related anxiety mediates the relationship between perceived job insecurity and the academic productivity of young teachers

The study of Gosling et al. (2020) pointed out that along with the pressure of achieving tenure within the limited time frame, there is also the pressure of creating their coursework by these faculties, which increases their stress and anxiety because they did not have appropriate time to spend for the research purpose which helps them to reach tenure. In the view of Larson et al. (2019), it is common in the life of a tenured faculty to face distress, fatigue, and anxiety that affect their productivity. Faculty members even responded that they face chronic sleep disturbances, anxiety attacks, poor self-confidence, and mood swings during their tenure track. Therefore, the following hypothesis can be accepted.

H11: Job-related anxiety mediates the relationship between workload pressure and the academic productivity of young teachers

The tenure track system, as per the view of Wang and Wang (2024), was created to remove the fear of faculty members and to give them more academic freedom. However, the tenure track system has had many negative impacts on the lives of academic staff, which has affected their performance in teaching and research. Even the tenure track system has affected the personal life of young researchers. Apart from that, the fear of insecurity about the job position was one of the major factors influencing the well-being of faculties. Similarly, the faculty also have job-related anxiety when they are under the tenure track system, according to Bunds (2021). Therefore, the following hypothesis can be assumed.

H12: Job-related anxiety mediates the relationship between fear of failure and academic productivity of young teachers

3. THEORETICAL UNDERPINNINGS

3.1. Herzberg's Two-Factor Theory

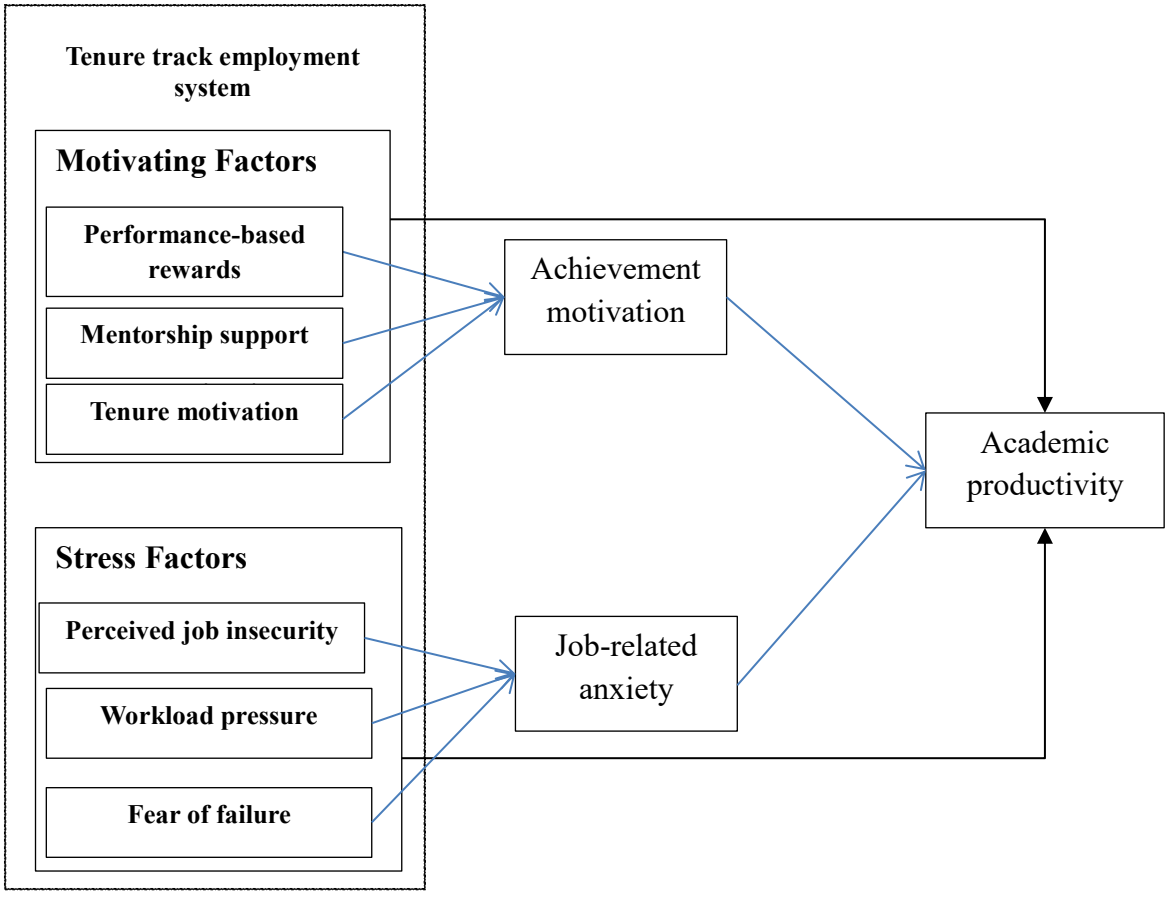
Frederick Herzberger, who proposed this theory, believed that motivators like job advancement and recognition are necessary for individuals to motivate themselves in their workplace. Apart from that, hygiene, which is also known as satisfiers, are

temporary attributes that help in overcoming dissatisfaction, for example, heavy workload, organisational policies, and supervision, says Ibrahim et al. (2023) and poor motivation can affect the quality of life of employees (Batool et al., 2021). It has been evident in the assessment of literatures that the teachers are suffering from workload pressure, job insecurity and fear of failure that are affecting their well-being and motivation (Wang and Wang (2024), Pietilä (2019), Yang et al. (2024)). By understanding Herzberg's motivation-hygiene theory, Chinese universities can better give recognition, job security, and advancement options for the young faculty, to better motivate them, and policies, and overcome dissatisfaction, and ensure a long-term successful academic career for faculty.

3.2. Job Demands-Resources (Jd-R) Model

The job demand resource theory is utilised to analyse the organisational processes that, in turn, can affect the well-being, performance, and health of employees. According to this theory, there are two contexts in a work: job resources and job demand. Job demands are associated with both psychological and physiological effort, which includes the cognitive demands of work pressure (Demerouti and Bakker, 2023). On the other hand, job resources can be addressed as aspects of the job to reduce job demand and help achieve personal growth and development. The theory emphasises that when a job setting demands are manageable by employees and can provide sufficient resources to the workers to fulfil the job demands, it will help employees (Demerouti and Bakker, 2023). When this theory is connected to that of the study topic, the application of this theory will be useful in understanding whether young teachers under the tenure track are getting enough job resources to fulfil the demands provided by the tenure track. Otherwise, it may lead to increased pressure on them (Ashcraft et al., 2021). Further, if there is a lack of resources, the Chinese universities could be able to support the young faculty by providing them with adequate resources that help them and even motivate them to publish.

4. CONCEPTUAL FRAMEWORK



Black line – Direct relationship

Figure 1: Conceptual Framework.

5. LITERATURE GAP

There are different studies that has discussed about tenure track system in universities in China. One of the studies is that of Xia et al. (2023), which concentrated on discussing the effect of the tenure track policy system and its current situation in public universities in China and the research concluded that it is essential to have openness, justice, and principle of fairness and the more advanced humanised way through which a more secure protection system can be developed for the teachers under the tenure tracking system. Similarly, another study is that of Wang and Wang (2024), which also discussed the tenure track employment system in universities in China through a scoping review method. Even though the research found out certain positives and negatives that are related to the tenure track system, it emphasises conducting better research on closer examination of the problems that are faced by teachers under the tenure track system. However, the studies that have concentrated on young teachers and on 10 different variables are lacking in the past literature. Therefore, this gap will be filled in understanding the positive and negative aspects of a tenure track system.

6. METHODOLOGY

A quantitative method using an online survey has been utilized to understand the effect of the tenure track employment system in China. Further, according to the observation of Taherdoost (2022), quantitative research will utilize numerical values to describe and explain different phenomena. The descriptive design is used in this research through quantitative technique to describe the phenomenon of Dual Effects of University "Tenure track" System. This design is useful to understand the academic productivity of young teachers. For the data collection purpose, 300 young teachers were selected. According to the observation of Andrade (2020), a large sample size can give accurate results, and at the same time, it should not be larger or critically less. Therefore, a large sample size of 300 was selected for this research. Constantin et al. (2023) stated that sample size is “large enough,” depends to a large extent on the research question and goals of the researcher. The chosen sample size is 300 as it is representative of Chinese young teachers. The target population is young teachers in universities in China.

For choosing the participant a purposive sampling technique was utilized. Purposive sampling is particularly useful when researchers aim to study certain cultural domains with experts or when they seek an in-depth understanding of specific areas (Tajik et al., 2024). This sampling technique helps in selecting the right sample for this research. Participants were recruited via social media and WeChat, provided consent, and completed a one-week online WJX survey with closed-ended Likert-scale questions on demographics and the positive and negative aspects of the tenure track employment system. All participants provided informed consent before participating in the study. Any missing data were minimal and addressed using listwise deletion to maintain dataset integrity.The data collected was later analyzed statically using SmartPLS through the structural equation modeling method. There were two types of analysis, descriptive data analysis and inferential data analysis. For inferential, PLS-SEM was chosen over CB-SEM because it effectively handles complex models with mediators, works with moderate samples, is robust to non-normality, and maximizes explained variance, making it ideal for predicting academic productivity in Chinese universities.

7. MEASUREMENT SCALE

Performance-based rewards and Tenure motivation are designed based on a 3-item scale, respectively, provided by Sultana and Jabeen (2020). Mentor support, Perceived job insecurity and Workload pressure followed the 3-item scale provided by Larson et al. (2019), De Angelis et al. (2021) and Wang (2021). The Fear of Failure, Academic productivity, Achievement motivation, and Job-related anxiety were also based on a 3-item scale, respectively, provided by Maxey & Kezar (2015), Yang et al. (2024), Agah (2019), Lang and Fries (2006), Upadhyaya & Vrinda (2021) and Gosling et al. (2020).

8. RESULTS

8.1. Descriptive Statistics

Table 1: Descriptive And Frequency Statistics Table (N = 301).

Variable	Categories / Statistics	Frequency	% (%)	Valid % (%)	Cumulative % (%)
Age	25–30	61	20.27	20.27	20.27
	30–34	76	25.25	25.25	45.52
	35–39	83	27.58	27.58	73.09

	Above 40	81	26.91	26.91	100.00
Gender	Female	133	44.19	44.19	44.19
	Male	168	55.81	55.81	100.00
Highest Degree	PhD	90	29.90	29.90	29.90
	Post-doctoral training	105	34.88	34.88	64.78
	Professional Doctorate (EdD/DBA)	60	19.93	19.93	84.72
	Overseas Training / Visiting Scholar Qualification	46	15.28	15.28	100.00
Designation	Assistant Lecturer	60	19.93	19.93	19.93
	Associate Professor	56	18.61	18.61	38.54
	Lecturer	121	40.20	40.20	78.74
	Professor	64	21.26	21.26	100.00
Years in Teaching	Less than 1 year	34	11.30	11.30	11.30
	1–3 years	91	30.23	30.23	41.53
	More than 3 years	176	58.47	58.47	100.00

The sample primarily consists of 35- to 39-year-old male teachers with 29.9 % holding PhDs, 34.9 % having post-doctoral training, 19.9 % having professional doctorates and 15.3 % having overseas/visiting scholar experience; most are Lecturers (40.2 %) with more than three years teaching experience creating a well quality experienced group.

Table 2: Reliability Of the Constructs.

	Composite reliability (rho_c)	Average variance extracted (AVE)
AM	0.814	0.686
FF	0.805	0.676
MS	0.867	0.765
PBR	0.880	0.709
PJI	0.879	0.708

All constructs exhibit strong internal consistency, as indicated by composite reliability values above the recommended 0.70 threshold. Composite reliability is preferred over Cronbach's alpha because it accounts for differing indicator loadings, providing a more accurate measure of internal consistency in PLS-SEM. While most AVE scores approach or exceed 0.50, suggesting acceptable convergent validity, some constructs (AP, FF, JA, TM, and WP) fall slightly below this benchmark.

Table 3: Discriminant Validity.

	AM	AP	FF	JA	MS	PBR	PJI	TM	WP
AM									
AP	0.677								
FF	0.643	0.590							
JA	0.419	0.467	0.506						
MS	0.657	0.287	0.342	0.330					
PBR	0.370	0.138	0.408	0.186	0.435				
PJI	0.386	0.231	0.184	0.167	0.412	0.598			
TM	0.624	0.404	0.398	0.255	0.433	0.157	0.225		
WP	0.506	0.330	0.433	0.286	0.275	0.232	0.166	0.190	

The HTMT results in above table 3 indicate that discriminant validity is evident as all constructs and all ratios are below the acceptable 0.85 ratio. Stronger associations like AM-AP (0.677), AM-MS (0.657), and FF-AM (0.643) demonstrate theoretically consistent associations whereas weaker ratios (such as TM-PBR (0.157) and WP-PJI (0.166)) show strong construct separation. There are no values exceeding operable thresholds and no unrealistic ratios are visible in the matrix. Generally, the trend of HTMT values indicates that the constructs are empirically different and that the measurement structure is adequate to support structural modelling.

Table 4: Collinearity.

	VIF
AM1	1.162
AM3	1.162
AP2	1.000

FF1	1.155
FF3	1.155
JA1	1.000
MS2	1.396
MS3	1.396
PBR1	1.599
PBR2	2.200
PBR3	1.707
PJI1	1.966
PJI2	2.337
PJI3	1.464
TM2	1.000
WP3	1.000

The Variance Inflation Factor (VIF) values for all items fall below the critical threshold of 5, indicating no serious multicollinearity issues. Most values range between 1.0 and 2.3, which suggests that predictor variables are relatively independent.

Table 5: Outer Loadings.

	AM	**AP**	**FF**	**JA**	**MS**	**PBR**	**PJI**	**TM**	**WP**
AM1	0.847								
AM3	0.810								
AP2		1.000							
FF1			0.739						
FF3			0.898						
JA1				1.000					
MS2					0.852				
MS3					0.897				
PBR1						0.796			
PBR2						0.898			
PBR3						0.829			
PJI1							0.814		
PJI2							0.892		
PJI3							0.816		
TM2								1.000	
WP3									1.000

The outer loadings in table 5 indicate strong indicator reliability, with all items showing high values above 0.70, suggesting that each measurement item reliably represents its respective latent construct and contributes effectively to the overall validity of the model.

Table 6: Model Fit Indices.

	Estimated model	**Null model**
Chi-square	135.480	1571.802
Number of model parameters	64.000	16.000
Number of observations	301.000	n/a
Degrees of freedom	72.000	120.000
P value	0.000	0.000
ChiSqr/df	1.882	13.098
RMSEA	0.054	0.200
RMSEA LOW 90% CI	0.040	0.192
RMSEA HIGH 90% CI	0.068	0.209
GFI	0.949	n/a
AGFI	0.904	n/a
PGFI	0.503	n/a
SRMR	0.050	n/a
NFI	0.914	n/a
TLI	0.927	n/a
CFI	0.956	n/a
AIC	263.480	n/a
BIC	500.735	n/a

The above table 6 suggesting on the CFA results where different fit indices can be observed. The chi-square/df ratio is sufficiently under acceptable levels (1.882) and this implies that there is good model parsimony. The RMSEA (0.054, 90 % confidence interval 0.040-0.068) indicates a small approximation error, as indicated by high values of the absolute fit measures like GFI (0.949) and AGFI (0.904). The incremental fit indices are also higher than recommended levels including CFI (0.956), TLI (0.927), and NFI (0.914), which proves that the specified factor structure fits much better than the null model. The SRMR (0.050) is suggesting clean residuals and better measurement precision.

Table 7: Direct Effects.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
AM -> AP	0.270	0.273	0.061	4.461	0.000
FF -> AP	-0.207	-0.205	0.058	3.579	0.000
FF -> JA	-0.315	-0.315	0.063	5.001	0.000
JA -> AP	0.261	0.257	0.059	4.435	0.000
MS -> AM	0.240	0.241	0.061	3.960	0.000
MS -> AP	-0.052	-0.053	0.055	0.951	0.342
PBR -> AM	0.111	0.118	0.053	2.089	0.037
PBR -> AP	-0.113	-0.108	0.056	1.993	0.046
PJI -> AP	-0.101	-0.103	0.057	1.775	0.076
PJI -> JA	-0.082	-0.087	0.062	1.305	0.192
TM -> AM	0.357	0.356	0.062	5.782	0.000
TM -> AP	0.150	0.150	0.064	2.342	0.019
WP -> AP	-0.079	-0.077	0.053	1.487	0.137
WP -> JA	-0.173	-0.173	0.061	2.850	0.004

The table 7 direct path analysis results suggesting that tenure motivation has a positive and significant effect on academic productivity (β = 0.270, p = 0.000), suggesting that individuals driven by the prospect of tenure tend to perform better academically. In contrast, mentorship support does not show a significant effect (β = -0.052, p = 0.342), indicating it may not directly enhance productivity in this context. Interestingly, performance-based rewards exhibit a significant negative effect (β = -0.113, p = 0.046), implying that such incentives might inadvertently hinder performance. Perceived job insecurity (β = -0.101, p = 0.076) and workload pressure (β = -0.079, p = 0.137) show no significant effects, while fear of failure has a strong negative impact on productivity (β = -0.207, p = 0.000), highlighting its detrimental role.

Table 8: Indirect Effects.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
PJI -> JA -> AP	-0.021	-0.022	0.017	1.235	0.217
MS -> AM -> AP	0.065	0.066	0.022	2.886	0.004
PBR -> AM -> AP	0.030	0.032	0.016	1.840	0.066
WP -> JA -> AP	-0.045	-0.045	0.019	2.369	0.018
TM -> AM -> AP	0.096	0.097	0.027	3.603	0.000
FF -> JA -> AP	-0.082	-0.082	0.027	2.990	0.003

This table 7 presents the indirect (mediated) effects of motivating and stress factors on academic productivity through achievement motivation (AM) or job-related anxiety (JA).

Key interpretations are:

- TM → AM → AP (β = 0.096, p = 0.000) and MS → AM → AP (β = 0.065, p = 0.004) are significant, supporting the mediating role of achievement motivation between tenure motivation/mentorship support and academic productivity.
- PBR → AM → AP (β = 0.030, p = 0.066) shows a small but non-significant positive indirect effect, indicating that its mediated pathway does not reach statistical significance in the final model.
- FF → JA → AP (β = -0.082, p = 0.003) and WP → JA → AP (β = -0.045, p = 0.018) confirm significant negative mediation through job-related anxiety.
- PJI → JA → AP (β = -0.021, p = 0.217) is clearly non-significant, indicating no meaningful mediating effect through job-related anxiety.

8.2. Final Model

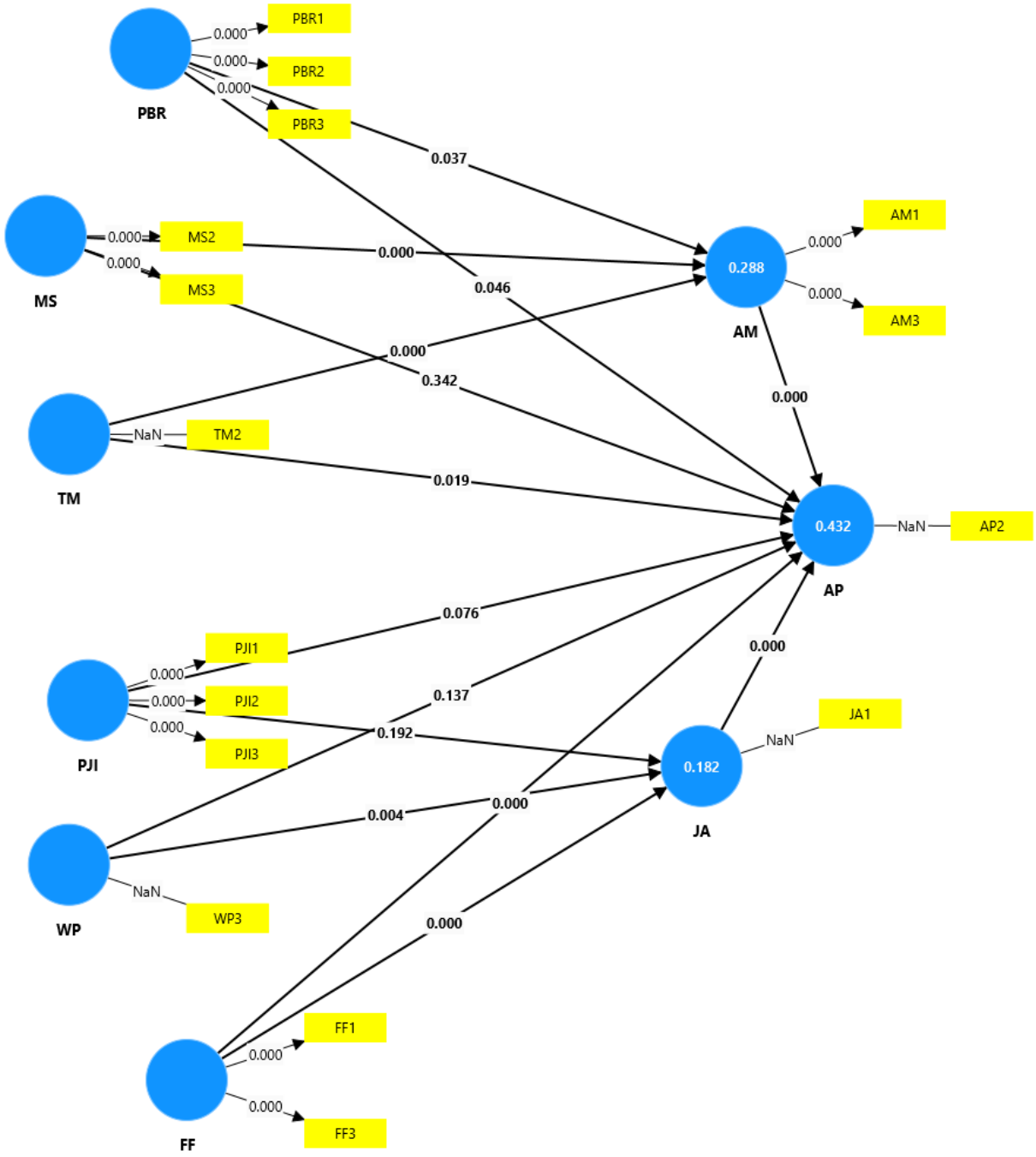


Figure 2: Structural Model.

The structural model visualization shows that achievement motivation and job-related anxiety (JA) significantly mediate relationships between various factors and academic productivity (AP). Notably, tenure motivation and fear of failure exert strong effects through AM and JA, respectively. The R^2 values indicate that the model explains 43.2% of the variance in AP, 28.8% in AM, and 18.2% in JA.

9. DISCUSSION

Based on the findings, tenure motivation emerges as a key driver of academic productivity among young university teachers, indicating that clear career advancement opportunities under the tenure-track system can effectively stimulate research performance. In contrast, mentorship support and performance-based rewards do not exert a significant direct effect on academic productivity. However, mentorship support demonstrates an indirect influence through achievement motivation, suggesting that its role is more developmental than immediate.Importantly, the results highlight that reducing job-related anxiety and fear of failure is critical for improving academic productivity. Among

the examined stress-related factors, fear of failure is identified as the most significant negative predictor, exerting both direct and indirect effects through job-related anxiety. In contrast, perceived job insecurity and workload pressure do not show significant direct effects, although workload pressure influences productivity indirectly via anxiety. These findings suggest that psychological mechanisms play a central role in shaping academic outcomes under the tenure-track system.The results are partially consistent with prior studies. Existing literature indicates that tenure-track systems enhance academic output by providing promotion incentives and career advancement opportunities (Agah, 2019; Xi et al., 2023), which is supported by the present findings. Similarly, previous research emphasizes the importance of mentorship in supporting early-career faculty (Wang and Wang, 2024). This study refines this perspective by demonstrating that mentorship operates indirectly through achievement motivation rather than through a direct effect.

However, several findings diverge from prior research. Notably, performance-based rewards exhibit a negative direct effect on academic productivity, contradicting traditional assumptions derived from Herzberg's Two-Factor Theory. This suggests that excessive reliance on extrinsic incentives may undermine intrinsic motivation or increase pressure, thereby limiting performance. In addition, perceived job insecurity does not significantly affect academic productivity, nor does it operate through job-related anxiety, which may reflect contextual differences in Chinese higher education institutions or adaptive coping strategies among young faculty.

From a theoretical perspective, these findings support the view that the tenure-track system simultaneously functions as both a motivational and stress-inducing mechanism. More importantly, they highlight the mediating role of psychological factors—particularly achievement motivation and job-related anxiety—in linking institutional arrangements to academic productivity.

From a practical and policy perspective, the findings offer several important implications for improving the tenure-track system. First, universities should prioritize the design of transparent and attainable career advancement pathways, as tenure motivation is shown to be a critical driver of productivity. Second, mentorship systems should be strengthened and formalized, not merely as supportive structures but as mechanisms that enhance achievement motivation among early-career faculty.Third, institutions should reconsider the over-reliance on performance-based reward systems. While intended to incentivize productivity, such systems may generate excessive pressure and reduce intrinsic motivation. A more balanced evaluation framework that integrates both qualitative and developmental indicators is therefore recommended.Fourth, given the strong negative role of fear of failure and job-related anxiety, universities should implement psychological support mechanisms, including stress management programs, counseling services, and more flexible evaluation timelines. Reducing the psychological burden associated with tenure evaluation is essential for sustaining long-term academic productivity.Finally, the indirect effect of workload pressure through anxiety suggests that reducing administrative burdens and improving work–life balance may further enhance faculty performance. Overall, optimizing the tenure-track system requires a shift from purely performance-oriented governance toward a more balanced model that integrates motivation, support, and well-being.

10. CONCLUSION

This study provides important theoretical implications by integrating the Job Demands–Resources (JD-R) model and Herzberg's Two-Factor Theory to explain the mechanisms through which the tenure-track system influences academic productivity among young university teachers. The findings highlight that tenure motivation serves as a key driver of academic performance, while achievement motivation operates as an important psychological mechanism that enhances productivity. From a JD-R perspective, the balance between job demands and available resources is critical for mitigating stress and sustaining performance. Meanwhile, Herzberg's theory underscores the importance of intrinsic motivators—such as recognition and career advancement—in fostering long-term academic engagement.

From a practical and policy perspective, the findings offer several implications for improving the design and implementation of the tenure-track system in Chinese universities. First, institutions should strengthen tenure-related motivational mechanisms by establishing transparent, attainable, and development-oriented promotion pathways, thereby enhancing tenure motivation among early-career faculty. Second, universities should place greater emphasis on non-monetary incentives—such as academic recognition, professional autonomy, and career development opportunities—rather than relying excessively on performance-based financial

rewards.Third, given the significant role of psychological factors identified in this study, universities should incorporate faculty well-being into institutional governance by providing structured mentorship programs, psychological support services, and workload management strategies. Reducing job-related anxiety and fear of failure is essential for sustaining academic productivity. Fourth, policymakers may consider introducing more flexible and supportive tenure evaluation frameworks, including longer evaluation periods or differentiated criteria across disciplines, to better accommodate diverse academic trajectories.

In addition, the findings have broader societal implications. By improving the tenure-track system and supporting young faculty development, universities can enhance the overall quality of teaching and research, attract more talented graduates into academic careers, and ultimately contribute to the sustainable development of higher education systems.Despite these contributions, this study has several limitations. The sample is limited to Chinese universities, which may restrict the generalizability of the findings to other contexts. Future research could adopt cross-national comparative designs to examine the applicability of the findings across different institutional settings. Furthermore, qualitative approaches, such as in-depth interviews, may provide richer insights into faculty experiences under the tenure-track system and help further validate the mechanisms identified in this study.

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APPENDIX-1

Measurement

Variable	Constructs	Likert scale	Source
Performance based rewards	• I am offered high salaries in tenure system • The promotional criteria are specific in tenure system • There is performance evaluation every year, which is hard under tenure	5-point scale	Sultana and Jabeen (2020); Adams & Am (2024).
Tenure motivation	• I am motivated to improve research activities • The tenure give better career development opportunities • I am having lack of motivation in achieving tenure	5-point scale	Sultana and Jabeen (2020); Zhou & Volkwein (2004)
Mentor support	• Mentors can help in navigating workplace challenges • Mentoring helps faculties to succeed in their academic career • There is lack of mentorship under tenure track	5-point scale	Larson et al. (2019); Kraimer et al. (2011)
Perceived job insecurity	• I have the fear of job loss • Job security is hindering my performance • I am not satisfied with my job	5-point likert scale	De Angelis et al. (2021); Tumelo & Donal (2025).
Workload pressure	• Huge administrative workload is provided by tenure • There is excessive demands for work under tenure track • I could not be able to engage with family	5-point scale	Wang (2021); Efendi et al. (2025)
Fear of Failure	• The teachers who fail to meet the criteria under TTS are seen as losers • I have the fear of losing my job • I am in crisis under the tenure system	5-point scale	Maxey & Kezar (2015); Mosewich et al. (2011)
Academic productivity	• Productivity of faculties increase due to pressure • Cross institutional collaboration can also help in increasing productivity • Tenure motivates in increasing in the number of published articles but there is pressure	5-point Likert Scale	Yang et al. (2024); Upadhyaya & Vrinda (2021)
Achievement motivation	• Rewards can be considered as a motivation for faculties in climbing the tenure ladder • Tenure demotivates me to perform better • Self-motivation is a major factor determining tenure success	10 item scale	Lang & Fries (2006).
Job related anxiety	• The pressure of achieving tenure is increasing anxiety • Anxiety is a major obstacle affecting my tenure performance • Anxiety and workload is very high under my tenure track	15 item scale	Gosling et al. (2020); Schmalbach et al. (2020)