



## A Model of Human Resource Management Practices Affecting Job Performance of Teaching Staff in Professional Higher Education Institutions in China

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### Abstract

Professional HEIs in China played an unique role in bridging academia and industry, while also facing specific HRM challenges in balancing academic rigor with organizational efficiency. This study employed a resource-based view and ERG theory to interpret the influence of HRM practices on job performance of teaching staff via work engagement in professional HEIs in China. The study adopted the quantitative method supported by the qualitative method and utilized a stratified random sampling way to collect data, resulting in 343 valid questionnaires, which were analyzed using SPSS and SEM. The model showed a good fit based on SEM model fit indices. The results were supported by in-depth interview data collected from 15 key informants. The results showed that HRM practices and work engagement had positive effect on job performance, and work engagement had a mediating role between HRM practices and job performance. Findings indicated that the integration of ERG characteristics into HRM practices from an RBV perspective offered a comprehensive and strategic approach to enhancing the job performance of teaching staff in professional HEIs in China. However, the reliance on self-reported data and focus solely on professional HEIs in China may limit the generalizability.

**Keywords:** HRM Practices, Job Performance, Work Engagement, Resource-based View, Professional HEIs

## Introduction

Higher education serves as a key driver of regional growth and prosperity (Arbo & Benneworth, 2007). There are four types of higher education institutions (HEIs) in China: academic HEIs, professional HEIs, vocational HEIs and adult HEIs. As a strategic resource, HRM practices play a crucial role in increasing teaching staff's job performance, and contributing to institutional success (Yalabik et al., 2013). However, academic, vocational and adults HEIs have faced difficulties over the past decades, e.g., the disconnect between theoretical courses and practices (Sun, 2021), low perception (Song et al., 2023), less adaptability of teaching staff (Shi, 2022), and many more.

Professional HEIs in China have developed since 2019, to solve the challenges and problems above. They play a critical role in bridging the gap between academia and industry, requiring a distinct approach to HRM practices that balances academic rigor with industry relevance. The reason why they were chosen for this study is they still face some problems, e.g., low social cognition (Mycos, 2021), ineffective training (Zhang, 2023), high teaching and research task pressure (Zhou et al., 2021), negative extra-role behavior (Bi et al., 2022), and low adaptive ability of teaching staff (Xu & Wu, 2022). Based on RBV (Messineo, 2024), teaching staff are the most valuable resource for HEIs, and the HRM practices such as salary, welfare, training, promotion and interpersonal relationship are key components of ERG theory (Yang, 2018).

According to CNKI search, only 6 articles in China focus on teaching staff in professional HEIs in China, while none of them discuss the relationship between HRM practices and job performance. This study aims to explore the potential of HRM practices in improving teaching staff's job performance by combining the resource-based view (RBV) and ERG theory. It would not only help to fill the research gaps, but also provide theoretical and practical references for HEIs leaders and government. Therefore, an essential question arises: "How do HRM practices affect teaching staff job performance via work engagement in professional HEIs in China?" The findings would be expected to have practical implications for professional HEIs leaders and policymakers.

## Research objectives

1. To determine on the affecting role of HRM practices on teaching staff's job performance via work engagement in professional HEIs in China.
2. To provide suggestions to leaders of professional HEIs and government in China.

## Literature review and hypotheses development

HRM practices was defined as the management of teaching staff that usually involves maximizing their performance (Bratton, 2021), including salary and welfare, training, promotion and interpersonal relationship (Xu & Wu 2022). Song et al. (2023) developed a theoretical model to examine whether, how, and when perceptions of salaries and welfare, effective training strength impact teaching staff proactive behavior. Zhang (2023) stated promotion will facilitate teaching staff's engagement and result in positive outcomes. Good interpersonal relationship could improve job performance in the (Mohamad & Jais, 2016), which would help professional HEIs in China achieve a competitive advantage (Zhou et al., 2021).

Work engagement was a kind of positive, pleasant work-related emotion and cognitive state of mind that shows teaching staffs' vigor, dedication, and absorption (Schaufeli, 2018; Yang, 2018). Vigor was a mixed condition of physical force and mental or intellectual energy (Daniel et al., 2022). Dedication was being strongly involved in work, and experiencing a sense of significance, enthusiasm, inspiration, pride and challenge (McBeath & Hopkins, 2019). Absorption was characterized by full concentration and happily doing the work (Schaufeli, 2018). Li and Khattak (2023) indicated that the higher the work engagement was, the better the job performance was. Zhang (2023) stated work engagement mediates the relationship between HRM practices and job performance through empirical studies on 23 HEIs in China.

Job performance was a mix of behavior and the results of the work characterized by task performance, organizational citizenship behavior (OCB), and adaptive performance (Campbell, 2013; Ramawickrama et al. 2017). Konstantzos et al. (2020) agreed task performance refers to the requirements stipulated in the job description related to individual ability, work proficiency and knowledge and skills. OCB was the voluntary behavior of teaching staff to benefit the institutions and students, which went beyond the expected standards of formal regulations (Zhang, 2023). Dilekçi and Nartgün (2020); Limon and Nartgün (2020) defined adaptive performance as capabilities to adapt to rapidly changing environment of teaching staff.

The Resource-Based View (RBV) was a theoretical framework that suggested competitive advantage and performance were primarily determined by the unique bundle of resources and capabilities it possesses (Messineo, 2024). ERG theory (Alderfer, 1969) agreed three groups of core needs: existence (E), relatedness (R), and growth (G), and he suggested that one might be motivated by needs on several levels at the same time. Teaching staff were intangible resources for professional HEIs. Salary and welfare were categorized as existence needs, while interpersonal relationship was relatedness

needs, training and promotion were growth needs. Therefore, the conceptual framework was conducted with four hypotheses (Figure 1):

H1: HRM practices has a direct effect on work engagement of teaching staff in professional HEIs in China.

H2: Work engagement has a direct effect on job performance of teaching staff in professional HEIs in China.

H3: HRM practices have a direct effect on job performance of teaching staff in professional HEIs in China.

H4: Work engagement has a mediating effect between HRM practices and job performance of teaching staff in professional HEIs in China.

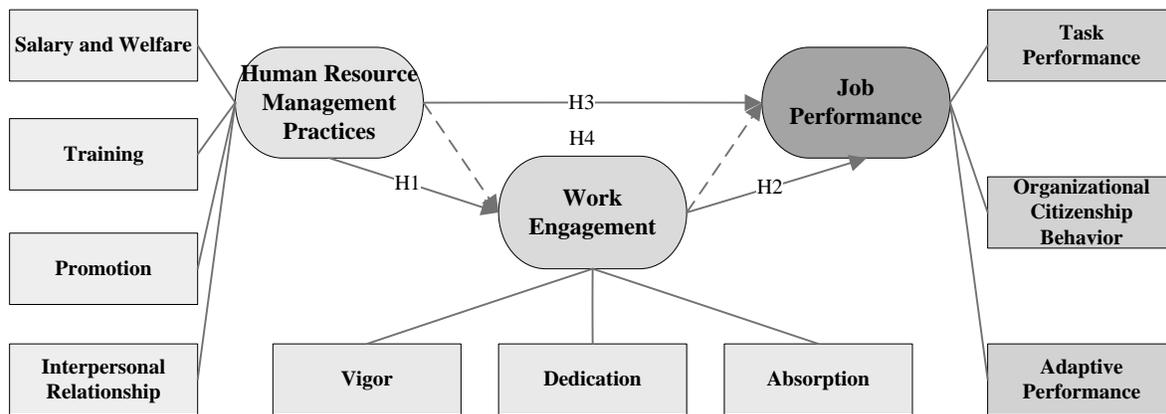


Figure 1 Conceptual framework

### Methodology

This study adopted quantitative research as a major methodology supported by qualitative research (Ivankova et al., 2006), according to the opinions of Denzin (2012) who stated that data triangulation could result in a broader understanding of the phenomenon of interest.

#### Quantitative research

The population was all of the teaching staff in professional HEIs in China. The total number of professional HEIs was 32. The sample size, calculated according to Krejcie and Morgan (1970), was 29 professional HEIs from the east, north, south, northwest, and southwest regions of China, which represented and accounts for 90.63% of the population. Other 3 professional HEIs from the northeast and central China were studied for the pretest.

The questionnaire with 58 items was conducted based on the validated scales (Schaufeli, 2017; Tao & Wang, 2006; Waseem et al., 2013), and then by IOC procedure for 5 experts to evaluate each item in relation to its relevance to the research objectives. The IOC scores were all above 0.60. The survey used a Likert scale (5-point). An ethical approval was obtained from Ethics Committee Panyapiwat Institute of Management (PIM). The stratified random sampling method was employed to account for potential differences and ensure proper representation. The data was analyzed using SPSS and Structure Equation Modeling (SEM) since SEM is effective in dealing with latent constructs by modeling the measurement model and ensuring the indicators are valid and reliable (McDonald & Ho, 2002). Chi-square ( $\chi^2$ ), CFI, GFI and RMSEA are employed in CFA to determine whether the proposed model was good for the data and hypothesis are supported (Barrett, 2007).

### **Qualitative research**

Based on the goal of data saturation point stated by Gaskin et al. (2010) and Bhale (2023) who recommended that 5-30 interviews for different population until no more new data provided additional insights into the research question, 15 informants were selected for in-depth interviews for this study. The study chose 10 teaching staff in professional HEIs, 3 experts in the academic area of management discipline, and 2 government officers from the education and HRM department separately for triangulation (Lewis, 2015). 14 open-ended questions were given in person and via video. The data was analyzed by thematic analysis (Nowell, et al., 2017), and findings were integrated with quantitative results.

### **Pretest**

In April 2024, a pilot test with a small sample was conducted. 15 questionnaires were distributed to each professional HEI in central and northeast China. A total of 45 questionnaires from 3 professional HEIs were collected randomly, and 41 valid questionnaires remained after meeting the criteria. Data was analyzed by SPSS. The value of Cronbach's Alpha ( $\alpha$ ) was 0.925, which was greater than 0.8, indicating a high reliability of the data. The reliability values of all questionnaires were acceptable, and the remaining items could be formed into formal questionnaires for follow-up investigation. The KMO value was 0.870, greater than 0.6, showing that the sampling was adequate. Therefore, the measurement for this study was valid.

### **Research results**

In this survey, stratified sampling was used, and 13 questionnaires were distributed to each institution with the help of HR sector, with a total of 377 questionnaires sent to 29 professional HEIs

from the east, north, south, northwest, and southwest regions of China. 359 questionnaires were returned, with a 95.23% recovery. After excluding 16 invalid questionnaires, 343 valid questionnaires remained, with a 95.54% effective rate.

### Measurement model

The demographic information was showed as the Table 1.

**Table 1** Sample Feature Description (n = 343).

Item No.	Items	Choices	Number	Percentage
1	Gender	Male	138	40.23%
		Female	205	59.77%
2	Age	21-30	132	38.48%
		31-40	133	38.78%
		41-50	63	18.37%
		Above 50	15	4.37%
3	Education Level	Under Bachelor Degree	13	3.50%
		Bachelor Degree or even	96	27.99%
		Master Degree	207	60.64%
4	Professional Title	Ph.D.	27	7.87%
		Assistant Lecturer	149	43.44%
		Lecturer	130	37.90%
		Associate Professor	48	13.99%
5	Tenure	Professor	16	4.66%
		Under 3	151	44.02%
		3-6	65	18.95%
		7-9	38	11.08%
6	Monthly Salary (CNY)	More than 9	89	25.95%
		Under 6,000	124	36.15%
		6,001-9,000	131	38.19%
		9,001-12,000	58	16.91%
		Above 12,000	30	8.75%
		Engineering	69	20.12%
7	Faculty	Economics	30	8.75%
		Law	75	21.87%
		Education	47	13.70%
		Medicine	4	1.17%
		Arts	17	4.96%
		Science	20	5.83%
		Management	47	13.70%
		Agronomy	3	0.87%
Others	31	9.03%		

Based on the CFA results (Table 2), the Cronbach's Alpha ( $\alpha$ ) of each factor of HRM practices, work engagement, and job performance was over 0.7, the average variance extracted (AVE) scores were all over 0.5, and the construct reliability (CR) scores were all over 0.8.

**Table 2** Reliability and Validity.

Variables	Sub variables	Items	Mean	SD	CITC	Cronbach's Alpha	AVE	CR
HRM Practices (HRMP)	Salary & Welfare (SW)	SW1	3.45	1.27	0.822	0.926	0.691	0.918
		SW2	3.47	1.36	0.835			
		SW3	3.45	1.36	0.814			
		SW4	3.47	1.39	0.809			
		SW5	3.69	1.21	0.753			
	Training (TR)	TR1	3.46	1.34	0.786	0.912	0.643	0.900
		TR2	3.55	1.25	0.804			
		TR3	3.38	1.39	0.798			
		TR4	3.41	1.22	0.730			
		TR5	3.57	1.23	0.772			
	Promotion (PR)	PR1	3.80	1.13	0.738	0.886	0.615	0.889
		PR2	3.91	1.08	0.728			
		PR3	3.83	1.21	0.730			
		PR4	3.83	1.12	0.721			
		PR5	3.88	1.07	0.707			
Interpersonal Relationship (IR)	IR1	3.55	1.21	0.797	0.889	0.614	0.888	
	IR2	3.50	1.29	0.679				
	IR3	3.53	1.32	0.767				
	IR4	3.47	1.30	0.709				
	IR5	3.53	1.11	0.711				
Work Engagement (WE)	Vigor (VI)	VI1	3.50	1.24	0.801	0.939	0.728	0.930
		VI2	3.61	1.19	0.820			
		VI3	3.53	1.26	0.908			
		VI4	3.44	1.19	0.848			
		VI5	3.50	1.24	0.810			
	Dedication (DE)	DE1	3.45	1.32	0.738	0.887	0.583	0.875
		DE2	3.53	1.28	0.759			
		DE3	3.63	1.25	0.692			
		DE4	3.52	1.27	0.731			
		DE5	3.71	1.24	0.713			
	Absorption (AB)	AB1	3.60	1.27	0.689	0.871	0.590	0.878
		AB2	3.64	1.30	0.686			
		AB3	3.57	1.23	0.704			
		AB4	3.64	1.30	0.705			
		AB5	3.67	1.26	0.699			
Job Performance (JP)	Task Performance (TP)	TP1	3.49	1.37	0.730	0.893	0.609	0.886
		TP2	3.63	1.24	0.648			
		TP3	3.51	1.34	0.786			
		TP4	3.43	1.40	0.770			
		TP5	3.58	1.31	0.754			
	Organizational Citizenship Behavior (OCB)	OCB1	3.57	1.31	0.756	0.900	0.653	0.904
		OCB2	3.37	1.28	0.676			
		OCB3	3.40	1.32	0.714			
		OCB4	3.57	1.31	0.830			
		OCB5	3.52	1.25	0.780			
	Adaptive Performance (AP)	AP1	3.87	0.98	0.554	0.831	0.556	0.862
		AP2	3.84	0.98	0.632			
		AP3	3.88	1.10	0.660			
		AP4	3.99	0.98	0.637			
		AP5	3.72	1.13	0.666			

Overall, all of these CFA indices meet the commonly accepted benchmarks, indicating a good-fitting model in terms of reliability and validity, as shown in the Table 3.

**Table 3** Model Fit Intercept (N = 343).

Model fit indicators	Observed Values	Model fit indicators	Observed Values
Chi-square/df	1.422	IFI	0.990
RMSEA	0.035	NFI	0.966
GFI	0.973	PNFI	0.838
CFI	0.990	PCFI	0.929

**Structural model**

The SEM output (Table 4) showed that work engagement increased by 0.541 when HRM practices rose by 1. Job performance increased by 0.417 when work engagement rose by 1. Job performance increased by 0.247 when HRM practices rose by 1. Dividing the regression weight estimate by the standard error estimate yields  $z = 0.541/0.060 = 9.020$ .

**Table 4** Results of Structural Equation Modeling.

Path relationship	Estimate	SE	CR	p	Estimates of Standardized Regression Weights
HRMP→WE	0.541	0.060	9.020	***	0.634
WE→JP	0.417	0.094	4.437	***	0.406
HRMP→JP	0.247	0.075	3.298	***	0.281

Using H1 as an example, standardized regression weight estimates (0.634) indicated that for every one standard deviation increased in HRM practices, work engagement rose by 0.634. These claims were roughly correct for large samples if appropriate assumptions were used. Pearson correlation values between the four sub-variables of HRMP and work engagement were all above 0.5, and the largest was 0.664 of salary and welfare. Meanwhile, Cohen’s  $f^2$  value was above 0.35, which showed HRM practices had great influence on work engagement and could explain a considerable part of the variation of it.



**Table 7** Qualitative insights converge on quantitative findings.

Hypotheses	Qualitative insights
HRMP→WE WE→JP HRMP→JP	Government officer No. 2: “targeted training and clear promotion conditions will make teaching staff more motivated to work hard and more conducive to achieving better job performance.” Teaching staff No. 9 said: “If new mothers could get more care from institution, we will be more engaged in our work.” Teaching staff No. 3 said: “when I am fully immersed and deeply focused on my work, and I find my work itself rewarding and engaging, so it will contribute to higher cognitive functioning and creative problem-solving.” Expert No. 2: “OCB fosters a supportive and positive work environment through behaviors such as showing empathy, respect, and friendliness, which can enhance morale and motivation of teaching staff, leading to higher job performance and satisfaction.”
HRMP→WE→JP	Government officer No. 1: “It makes sense that the more you put into your work, the better you perform. The development of all kinds of work requires sufficient human and financial support, and insufficient investment will certainly affect the progress of various work and also affect job performance.” Teaching staff No. 3 said: “if there is no reasonable salary, no training and promotion opportunities, or the interpersonal relationship is too complicated, it will make me feel the work is tiring and consuming, which will definitely affect my work input, and the job performance will be reduced.” Expert No. 1 said: “Only when HRM practices make people truly feel supported can they achieve the optimal effectiveness. When this occurs, teaching staff will develop gratitude and an emotional commitment. This, in turn, will enhance their job performance, thereby bringing greater returns to their institutions.”

**Conclusion and Discussion**

The study can be concluded that: HRM practices and work engagement had direct effect on job performance of teaching staff in professional HEIs in China; Work engagement, driven by individual motivation, has a mediating effect between HRM practices and job performance of teaching staff in professional HEIs in China. Additionally, the unique Chinese culture, deeply rooted in history and collectivism, gave rise to the importance of interpersonal relationships in HRM practices for professional HEIs in China.

This study also drew some new findings. Results from the in-depth interview gave an explanation as to why the quantitative results showed 0.247 for the estimated value of HRM practices to job performance. For example, when asked if HRM practices can significantly affect job performance of teaching staff, Government Officer No. 1 said, “*Yes. But if performance goals and expectations are unrealistic, teaching staff may feel confused or demotivated, leading to subpar performance.*” Teaching

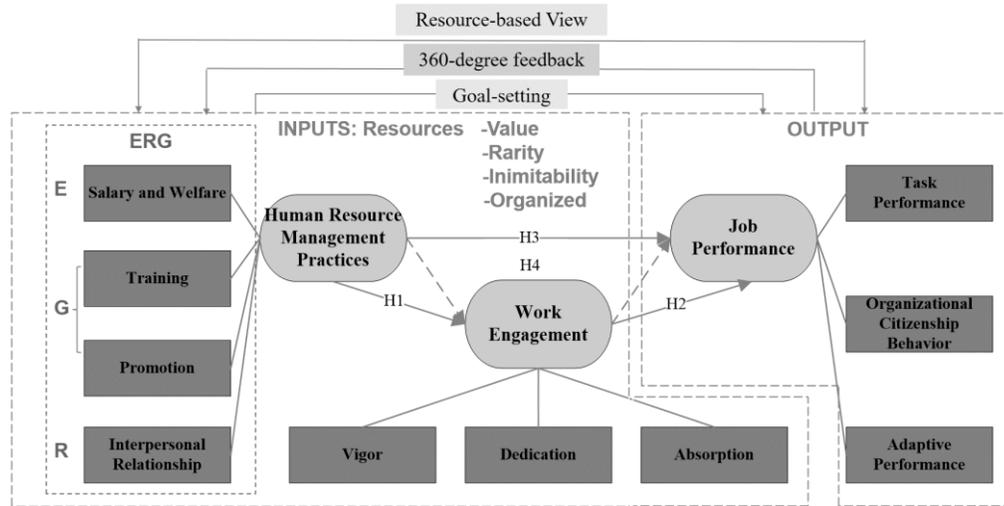
staff No. 4 gave further insight, stating, *“The standards set by my institutions are too high for me to reach even if I try. There is a lot of work. I can’t breathe. Sometimes I think about quitting my job.”*

It was also presented some views related to institutional factors. The findings of Qu and Yan (2023) showed that WFH (work from home) lowers job performance in terms of job productivity. Some teaching staff set forth views on the effects of the pandemic on work engagement, which is in line with Memon et al. (2016), who analyzed the relationship between work engagement and job performance. For example, Expert No. 2 said, *“During the pandemic, teaching staff engaged even more time and energy in teaching than in a normal situation, but the outcomes were sometimes not good. Because the courses were changed from onsite to online, some students became lazy, coped hastily, or didn’t follow the teaching staff’s requirements with a negative learn-for-test attitude without the teaching staff’s face-to-face supervision. As a result, the teaching staff’s job performance was not improved significantly.”*

### **Theoretical implications**

While traditional HRM and performance research in HEIs focused on institutional policies or administrative practices (Hassan, 2016; Jaskiene, 2015), the study showed that job performance of teaching staff would be enhanced with support of HRM practices through strategic management of their needs when incorporating ERG characteristics into HRM practices from a Resource-based View perspective (Figure 2).

First, HRM practices should prioritize the resources that cater specifically to the existence, relatedness, and growth needs of teaching staff. The existence pertains to the fundamental requirements of faculty, including competitive salaries and welfare. Relatedness focuses on interpersonal relationships within the academic environment. Growth needs include effective training and opportunities for promotion. By addressing these three dimensions—existence, relatedness, and growth—HRM practices can create a more supportive and enriching environment for teaching staff in Chinese HEIs, ultimately leading to improved job performance of teaching staff with subsequent enhancement of educational outcomes and institutional success.



**Figure 2** Framework integrating ERG and RBV

Second, the integration of ERG (Existence, Relatedness, Growth) characteristics into HRM practices through the lens of the Resource-Based View (RBV) contribute to the theoretical understanding of ERG and RBV in professional HEIs. Considering the VRIO framework (Valuable, Rare, Inimitable, Organized) provides a comprehensive and strategic approach to enhancing job performance of teaching staff in professional HEIs in China. The distinctive combination of ERG-focused HRM practices can set the professional HEI apart from its competitors. For instance, an institution with a goal-setting schedule excels in fostering meaningful interpersonal relationships among faculty through collaborative initiatives and strong mentor-ship programs, which could create a unique culture not easily found elsewhere. This rare environment fosters a sense of belonging and community, enhancing job performance while also attracting top talent who seek a supportive and engaging workplace. Conducting a circle with 360-degree feedback, professional HEIs could establish systems that will ensure these resources were organized effectively.

This is a new lens through which to examine how HRM practices, grounded in the ERG model, can directly impact teaching staff's motivation and engagement, which then enhances their job performance and contributes to the overall success of the professional HEIs in China.

### Practical implications

This study provided a broader perspective to benefit not only teaching staff and professional HEIs but also the students and the social economic benefits.

First, for students. Engaged teaching staff would enhance teaching quality, student satisfaction, and academic performance, fostering a dynamic learning environment that would prepare students for successful careers. This would not only boost retention and graduation rates but also strengthen faculty-student relationships, providing valuable mentorship and career opportunities.

Second, for economy. Well-supported and engaged teaching staff would contribute to HEIs productivity, research output, and innovation, which attract more students and funding. This would enhance global competitiveness, particularly by drawing international students who contribute to the local economy. Additionally, faculty-driven research and industry collaboration would promote economic growth, while the development of a skilled workforce supports emerging industries. Long-term, these strategies would promote social mobility, reduce inequalities, and encourage civic engagement, ultimately contributing to societal development.

## **Recommendations**

### **Suggestions for leaders of professional HEIs**

First, immediate strategies. Leaders should consider personalized benefit packages for teaching staff. Teaching staff could choose benefits according to their interests and needs, such as a gym membership, book purchase vouchers, family vacation vouchers, and many more. These customized benefits can better meet the individual needs of teaching staff and increase their satisfaction and motivation, ultimately improving their job performance. Furthermore, leaders should consider providing on-campus childcare facilities or partnerships with local childcare providers to support teaching staff with family responsibilities, as well as develop family leave policies and flexible scheduling.

Second, mid-term strategies. Leaders should consider establishing a more effective training system to help teaching staff adapt to rapid changes. They should dedicated teaching staff development fund, implementing teaching staff exchange programs, and developing teaching staff achievement maps to enhance teaching staff's sense of pride and accomplishment and improve their work. For some professional HEIs it might be limited by their own strength, but they can consider institution-enterprise cooperation to expand funding channels.

Third, long-term strategies. Leaders should create a good interpersonal relationship pipeline, and foster international collaborations to enhance institutional reputation. Additionally, developing robust recognition and career advancement systems, strengthening diversity and inclusion initiatives, and offering ongoing professional development opportunities will ensure that teaching staff remain motivated, innovative, and committed to the HEIs' long-term success.

### **Suggestions for government to develop policies**

First, a regional professional HEI alliance should be established to carry out cooperative projects. For example, cross-school curriculum co-construction and sharing could be carried out, and professional HEIs would be encouraged to jointly apply for major scientific research projects, build research platforms, and realize the sharing of scientific research resources and complementary advantages.

Second, third-party evaluation agencies should be introduced to participate in teaching staff performance evaluations supervised by the government. The government would formulate the admission standards and qualification certification system for third-party evaluation institutions, clarify the responsibilities and rights of third-party assessment agencies, and establish a cooperation and supervision mechanism between the government and third-party evaluation institutions.

### **Limitations and further research**

First, China's regional differences influence the implementation and impact of HRM practices on job performance. Future research should focus on specific regions to develop tailored HRM models that consider regional contexts and inform targeted policy interventions. Second, this study focuses on the impact of HRM practices and work engagement on job performance. Future research should include a broader range of variables to develop more comprehensive models that capture the complexity of factors affecting job performance. Third, this study relies on self-reported questionnaires, which can be biased due to social desirability, memory recall, or lack of self-awareness. Future research should adopt a multi-source data collection approach, such as 360-degree feedback and field experiments, to provide a more accurate and objective assessment of teaching staff's job performance.

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