Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Job Performance and the Influencing factors Among University Lecturers in Inner Mongolia, China

Wen Jing Gou
INTI International University
kim Yew Lim
kimyew.lim@newinti.edu.my

INTI International University
Mei Hu
Yinchuan University of energy
Owee Kowang Tan
Universiti Teknologi Malaysia
Chin Fei Goh
Universiti Teknologi Malaysia
Ong Choon Hee Ong Choon Hee
Universiti Teknologi Malaysia
Samreen Fahim Babar
Quaid-i-Azam University
Wen jing Gou
Inner Mongolia University

Article

Keywords: Job performance, Intrinsic motivation, Perceived organizational support, psychological empowerment

Posted Date: April 6th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-9242438/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License

Additional Declarations: No competing interests reported.

Abstract

Job performance has received extensive scholarly research attention in organizational studies, but empirical studies on university lecturers are still limited in less-developed regions of China. This paper examines the relationship between intrinsic motivation, perceived organizational support, psychological empowerment, and lecturers' job performance in Inner Mongolia universities, China. A quantitative research method was used, and data collection was carried out using a questionnaire. A PLS-SEM approach, implemented in SmartPLS 4, was employed to examine the dataset and test hypotheses. The findings show that intrinsic motivation, perceived organizational support, and psychological empowerment are positively and significantly related to lecturers' job performance. The results provide empirical evidence on several important individual and organizational determinants of job performance in higher education institutions in less-developed regions of China and offer practical implications for higher education management and policy development.

Introduction

The Inner Mongolia Autonomous Region (hereafter referred to as Inner Mongolia) is situated in the northern frontier of China, spanning the country's northeast, north, and northwest regions. And Inner Mongolia is among the least developed regions of the country in terms of economic and educational development. Its key features are a large area, scattered people, and a distinct historical and cultural background influenced by the Mongolian background. The administrative area of Inner Mongolia is a total of 1.183 million km², which represents about 12.3% of the total land of the entire China, and therefore Inner Mongolia is one of the largest provincial-level administrative regions in China (National Ethnic Affairs Commission, 2018). Based on the official national statistics, the resident population of the region was estimated to be about 23.88 million in 2025 (National Bureau of Statistics of China, 2025a). As per the official statistics, Gross Domestic Product (GDP) of Inner Mongolia was about 2.671 trillion RMB in 2025, the place of which is about 20th out of 31 China-based regional jurisdictions (Inner Mongolia Statistics Bureau, 2026). Since the inner Mongolia has a favorable geographical location and rich natural resources, the economic development level is relatively low, and the development of the region and institutional capacity is still severely limited by harsh climatic conditions (National Bureau of Statistics of China, 2025b).

Higher education is vital in the development of countries, innovation, and human capital. A strategic importance has also been gained by higher education in China, especially due to national policy changes like the aim of establishing a powerful education system by the year 2035, which also accentuates the role of the universities in the improvement of the quality of education and global competitiveness (Ministry of Education of the People's Republic of China, 2021). In this system, institutions of higher learning (HEIs) are some of the most important sites of knowledge generation, talent building as well as academic research. In this regard, university lecturers form a fundamental part of human capital, whereby their teaching and research work directly determine the performance of the institutions. Thus, the proposed research is concentrated on universities and colleges where teachers are the central

figures towards delivering educational and organizational achievement (Ministry of Education of the People Republic of China, 2023).

Research output constitutes a key dimension of job performance in in universities, as it represents a fundamental component of university lecturers' professional responsibilities. Within the Chinese higher education system, substantial regional disparities exist in terms of research capacity and academic development. Higher education institutions in western and less-developed regions are generally characterized by lower levels of research performance compared to those in eastern regions, reflecting long-standing regional inequalities in the development of higher education (Zhang et al., 2023). These disparities are particularly evident in research outputs, such as academic publications and scholarly contributions, which remain key performance expectations for university lecturers across different regions.

A substantial body of research has examined job performance and its antecedents; however, important gaps remain, particularly within higher education contexts in less-developed regions. Studies on intrinsic motivation have largely emphasized individual-level psychological processes, often paying less attention to organizational and institutional conditions, especially in non-Western educational settings. Scholarly investigations into perceived organizational support and psychological empowerment has also been predominantly situated in corporate and administrative contexts, including government institutions and service industries (Alhosani & Ahmad, 2024; Cudjoe et al., 2023). By comparison, empirical evidence within higher education institutions is still limited, particularly in less-developed regions where contextual constraints may shape lecturers' job performance in distinct ways. These observations, together, suggest that a more integrated and context-relevant study of how intrinsic motivation, perceived organizational support and psychological empowerment affecting job performance of lecturers should be conducted particularly in underdeveloped regions like Inner Mongolia.

To fill these gaps, this paper examines how intrinsic motivation, perceived organizational support, and psychological empowerment affect job performance of university lecturers in Inner Mongolia, China. A quantitative research design was adopted, a questionnaire was used to gather data and it was analyzed with the aid of Partial Least Squares Structural Equation Modeling (PLS-SEM). By focusing on a less-developed regional context, this inquiry develops a more context-sensitive and empirically grounded understanding of the key determinants of lecturers' job performance in universities.

Literature Review

Job performance has been the focus on organizational research because it plays a key role in attaining organizational goals (Campbell, 2012). Job performance is a construct in organizational psychology that describes employee behaviors which are related to organizational goal achievement (Borman & Motowidlo, 1997; Abawa & Obse, 2024). The available literature indicates that the job performance could be impacted by various factors, including work attitudes and motivation, organizational support,

personal factors like personality and cognitive ability, and large-scale organizational factors including organizational culture and citizenship behaviors (Podsakoff et al., 2000; Hofstede, 2001).

Hypothetically, this research draws upon Self-Determination Theory (SDT), which delines the relationship between the fulfillment of fundamental psychological needs and individuals' motivation and behavioral outcomes. Instead of emphasizing only intrinsic motivation, SDT highlights the key role of autonomy, competence, and relatedness in the internalization of motivation along with long-term performance. When these needs are met, individuals tend to develop self-regulated forms of motivation, which leads to improved job performance (Deci & Ryan, 2000; Gagné & Deci, 2005).

In the organizational setting, intrinsic motivation is a form of internally regulated behavior, while contextual variables such as perceived organizational support and psychological empowerment contribute to the satisfaction of these basic psychological needs. When organizations provide supportive conditions and empower employees, individuals tend to gain greater autonomy, develop a stronger feeling of competence, and establish meaningful social connections. Through these processes, need satisfaction facilitates the internalization of motivation and ultimately leads to improved job performance (Baard et al., 2004; Ryan & Deci, 2000).

Intrinsic motivation is the inward drive of a person to perform activities because of intrinsic satisfaction of doing the work itself rather than being driven by external compensation and pressures (Zeng et al., 2022). Intrinsic motivation in this study is treated as involvement in work activities based on individuals' interest, enjoyment, and internal challenge of the task. Intrinsically motivated employees are more willing to work and demonstrate long-lasting effort and perseverance even without external reinforcement. As other scholars have pointed out, intrinsic motivation is a key driver in strengthening employee performance (Dysvik & Kuvaas, 2011; Manzoor et al., 2021). This corresponds to Self-Determination Theory, which emphasizes that intrinsically motivated individuals tend to improved performance (Deci & Ryan, 2000).

Perceived organizational support captures employees' perception that their contributions are valued and their well-being is supported (Eisenberger et al., 1986). When employees perceive stronger organizational support, they tend to encourage supportive attitudes toward their work and organization. Such perceptions foster higher levels of motivation and commitment, which form important foundations for effective job performance. Prior research further suggests that perceived organizational support enhances employees' felt responsibility to facilitate the achievement of organizational goals and enhances their affective attachment, thereby encouraging higher levels of performance behaviors (Rhoades & Eisenberger, 2002). Accordingly, perceived organizational support is widely regarded as a critical organizational factor influencing job performance(Alhosani & Ahmad, 2024). From a Self-Determination Theory perspective, perceived organizational support facilitates the satisfaction of employees' psychological needs, thereby enhancing motivation and performance (Gagné & Deci, 2005).

Psychological empowerment is defined as a process through which employees develop a sense of self-efficacy by reducing conditions that create feelings of powerlessness, including both formal

organizational systems and informal practices related to information sharing and support (Conger & Kanungo, 1988). Psychologically empowered employees are more likely to exhibit high work efficiency and strong problem-solving ability. Empirical findings also demonstrate that psychological empowerment is positively related to employee performance, meaning that empowered employees are more efficient in carrying out assigned tasks (Gao et al., 2023). Psychological empowerment is closely aligned with Self-Determination Theory, particularly in satisfying the autonomy and competence requirements, which consequently promotes higher levels of performance (Deci & Ryan, 2000).

On the basis of the previous studies, the proposed hypotheses are:

H1: Intrinsic motivation has a significant effect on job performance among lecturers in Inner Mongolia, China.

H2: Perceived organizational support has a significant effect on job performance among lecturers in Inner Mongolia, China.

H3: Psychological empowerment has a significant effect on job performance among lecturers in Inner Mongolia, China.

Methods and Materials

Research Design

This paper presents a critical assessment of the correlations between intrinsic motivation, perceived organizational support, psychological empowerment, and job performance as a quantitative study. The proposed relationships were testable with the help of the structured questionnaire that was used to collect data. Survey-based research techniques in management are common because they allow one to produce similar and generalizable data (Saunders et al., 2009; Creswell, 2014).

As the measures of all variables were based on self-reported information, a number of procedural steps were introduced into the questionnaire design in order to decrease the possibility of common method bias, based on established guidelines (Podsakoff et al., 2003).

Sample and Data Collection

The data were gathered from university lecturers in Inner Mongolia, China. A snowball sampling strategy was adopted due to the lack of an accessible sampling frame and the geographically dispersed nature of the target population. The sample was expanded through professional networks by asking initial participants to distribute the questionnaire to colleagues who met the study criteria.

The questionnaire was administered online via Wenjuanxing and distributed through WeChat. Data were obtained during December 2025 and January 2026. A total of 255 responses were obtained. After data

screening, 253 valid responses were selected for final analysis.

The sample size is considered adequate for structural equation modeling, as prior methodological studies indicate that PLS-SEM can provide reliable estimates with moderate sample sizes (Hair et al., 2014).

Measurement Instruments

The scales used to measure all constructs were established scales adopted from previous research. Intrinsic motivation was assessed with the help of the items created by Udin et al. (2023). The perceived organizational support was measured based on a scale which was initially constructed by Eisenberger et al. (1986) and then modified by other scholars, including Astuty and Udin (2020). Measurement items adapted from Marin-Garcia and Bonavia (2021) were employed to evaluate psychological empowerment. A self-reported scale adapted from Nguyen et al. (2022) was used to measure job performance.

Data Analysis Technique

The analysis was performed in two stages. First, SPSS 30 was used to screen the dataset, including checks for missing values, outliers, and overall data quality. Second, Partial Least Squares Structural Equation Modeling (PLS-SEM) was performed using SmartPLS 4. This approach was selected because it is suitable for prediction-oriented research and can accommodate complex relationships among constructs (Hair et al., 2014).

The measurement model was tested for reliability and validity. Next, the structural model was tested. Bootstrapping served to determine the statistical significance of the estimated relationships. Additionally, collinearity diagnostics were examined to assess potential common method bias.

Results

Descriptive Statistics

The final sample included 253 university lecturers in the universities of Inner Mongolia, China. Gender wise, Female respondents accounted for 57% of the sample(n = 143) and 43% respondents were male (n = 110). In terms of age, the highest number of respondents (40%), was aged 31–40, then 41–50 (22%), and 51–60 (15%). Twenty six to thirty years old respondents constituted 14%, and those aged above 60 years constituted 6%. Only three percent of the respondents were between the ages of 18 and 25 years. Regarding the educational attainment, 47% of the respondents held a master degree, 27% had a doctoral degree and 25% held a bachelor degree or its equivalent. Regarding the experience of teaching, 27% of the respondents had 1–5 years of experience, 21% had 6–10 years, 15% had 11–15, 15% had 16–20 years of experience and 23% had over 21 years experience. In the case of academic rank, the largest proportion (38%), was lecturers, then associate professors (29%), and professors (14%). The percentage

of assistant lecturers constituting the sample was 8 percent, and 10 percent fell into the other categories. A summary of the respondents' demographic characteristics is presented in Table 1.

Table 1
Profile of respondents

Respondents Demographic	Category	Frequency (N = 253)	Percentage (%)
Gender	Male	110	43%
	Female	143	57%
Age	Below 18	0	0%
	18–25 years	7	3%
	26–30 years	35	14%
	31–40 years	100	40%
	41–50 years	56	22%
	51–60 years	39	15%
	60 and above	16	6%
Education Background	Secondary school certificate	0	0%
	Diploma/technical school certificate	0	0%
	Bachelor's degree or equivalent	64	25%
	Master degree	120	47%
	Doctoral degree	69	27%
Seniority	1–5 years	68	27%
	6–10 years	53	21%
	11–15 years	38	15%
	16–20 years	37	15%
	21 years and above	57	23%
Teaching title	Professor	36	14%
	Associate Professor	73	29%
	Lecturer	97	38%
	Assistant Lecturer	21	8%
	others	26	10%

Measurement Model

Indicator Reliability

The indicator reliability of the measurement model was assessed with the PLS algorithm in SmartPLS. Table 2 reports that the outer loadings of the retained items were between 0.765 and 0.918, suggesting that all items demonstrated satisfactory reliability. Prior methodological research indicates that reflective indicators with loadings above 0.70 are generally acceptable, whereas indicators with lower loadings should be reconsidered only when their removal improves the overall quality of the construct (Hair et al., 2014; Henseler et al., 2009). Thus, one of the items (PE3) in the psychological empowerment construct was omitted due to its relatively low loading. Removing this item did not substantially affect the general representation of psychological empowerment, as the remaining items still capture the core aspects of the construct. Following its removal, all the remaining indicators were above the recommended level meaning that the final model of measurement has sufficient indicator reliability.

Table 2
Measurement model results: loadings and AVE

Constructs	Indicators	Outer loading	Composite Reliability (CR)	Convergent Validity (AVE)
Job performance(JP)	JP1	0.765	0.852	0.629
	JP2	0.772		
	JP3	0.81		
	JP4	0.82		
	JP5	0.796		
Intrinsic motivation(IM)	IM1	0.847	0.887	0.747
	IM2	0.88		
	IM3	0.871		
	IM4	0.859		
Perceived organizational support(POS)	POS1	0.813	0.919	0.755
	POS2	0.875		
	POS3	0.882		
	POS4	0.918		
	POS5	0.852		
Psychological empowerment(PE)	PE1	0.782	0.75	0.664
	PE2	0.849		
	PE4	0.813		

Internal Consistency Reliability

Composite reliability (CR) values were employed to assess the internal consistency reliability. The methodological recommendations indicate that CR values that exceed 0.70 are evidence of satisfactory internal consistency of reflective measurement models (Bagozzi & Yi, 1988). Table 2 indicates that the CR of constructs used in this research had a range of 0.750 to 0.919 with all the values being greater than the recommended value. These results indicate that the measurement items associated with each construct consistently capture their underlying concepts, thereby confirming adequate reliability of the reflective measurement model.

Convergent Validity

Convergent validity captures how strongly multiple indicators of the same construct converge in terms of shared variance. In PLS-SEM, this form of validity is commonly examined using the average variance extracted (AVE), which shows the proportion of variance explained by a construct in relation to measurement error. Methodological guidelines suggest that AVE values of 0.50 or higher indicate an acceptable level of convergent validity (Bagozzi & Yi, 1988; Chin, 1998).

Table 2 reports that the value of all the constructs of the AVE in this study was between 0.629 and 0.755, which is higher than the required AVE. The results show that every latent construct is significant enough to account for a considerable amount of variance in its indicators, thereby confirming convergent validity.

Discriminant Validity

Discriminant validity was examined in order to evaluate whether the latent constructs of the reflective measurement model are empirically distinguishable. As recommended under the guidelines of PLS-SEM, there are two criteria that can be used where discriminant validity was evaluated. The former one is the Fornell-Larcker approach, where the square root of AVE for each construct exceeds its relationships with other constructs. The second criterion is to consider cross-loadings, in which each of the indicators must have a stronger score on its respective construct compared to any other construct (Chin, 1998).

In the Fornell-Larcker method, discriminant validity is determined when the construct shares more variance with its own indicators than with other constructs. Table 3 presents the square root of the AVE values as placed within the diagonal and the off-diagonal values as the correlation between constructs. The findings indicate that, across all the constructs, the diagonal values are always higher as compared to the inter-construct corresponding correlation coefficients in both the same rows and columns. This shows that every construct is empirically distinct and it has its own unique variance that cannot be attributed to other constructs.

Combined, the findings, as indicated by the Fornell-Larcker approach, and backed by the cross-loading test, prove the fact that the measurement model achieves discriminant validity. This offers additional confidence in the quality of the measurement model, and the validity of the analysis and conclusions that were made about the subsequent analysis through the structural model.

Table 3
Fornell–Larcker

IM	**IM**	**JP**	**PE**	**POS**
	0.864			
JP	0.731	**0.793**		
PE	0.674	0.677	**0.815**	
POS	0.242	0.374	0.448	**0.869**

Besides the Fornell-Larcker criterion, the discriminant validity was also assessed through the cross-loading of all the measurement items between the latent constructs (Hair et al., 2014). Cross-loading analysis is concerned with the fact that an indicator has a higher loading with its intended construct than with other constructs in the measurement model. In a situation whereby indicator reveals relatively large loadings on numerous constructs, this could depict a measurement model that lacks a discriminant validity and compromises interpretability.

Table 4 indicates that statistical findings of the cross-loading analysis show that every measurement item has the highest loading on the corresponding construct. In particular, the loading of every indicator on its assigned latent variable will always be significantly greater than that of the indicator on all other constructs in the same row. This trend proves that the indicators have been established to be empirically different and sufficiently measure the respective constructs. Thus, the outcomes of the cross-loading results are the supplementary evidence that the model demonstrates strong discriminant validity

Table 4
Assessment of discriminant validity with Cross Loading

IM1	IM	JP	PE	POS
	0.847	**0.561**	**0.579**	**0.223**
IM2	**0.88**	0.664	0.537	0.182
IM3	**0.871**	0.612	0.639	0.249
IM4	**0.859**	0.679	0.581	0.189
JP1	0.54	**0.765**	0.484	0.24
JP2	0.604	**0.772**	0.47	0.216
JP3	0.605	**0.81**	0.558	0.394
JP4	0.606	**0.82**	0.655	0.354
JP5	0.539	**0.796**	0.498	0.259
PE1	0.462	0.484	**0.782**	0.429
PE2	0.658	0.639	**0.849**	0.22
PE4	0.504	0.514	**0.813**	0.489
POS1	0.148	0.283	0.33	**0.813**
POS2	0.189	0.314	0.334	**0.875**
POS3	0.17	0.287	0.4	**0.882**
POS4	0.172	0.326	0.394	**0.918**
POS5	0.334	0.391	0.464	**0.852**

Structural Model

Structural model was tested with the help of evaluating coefficient of determination (R^2) and significance of structural paths. The coefficient of determination (R^2) represents the variance in the endogenous construct which is explained by the exogenous variables and is used to assess the explanatory power of the PLS-SEM model(Hair et al., 2017; Henseler et al., 2009). The SmartPLS 4 algorithm was used in this study to obtain estimates of the R^2 values.

According to the results, job performance (JP) had an adjusted $R^2 = 0.605$ and $R^2 = 0.610$ implying that intrinsic motivation, perceived organizational support, and psychological empowerment explain 60.5 percent and 61.0 percent variance in job performance by lecturers, respectively. Based on the accepted rules this amount of the explained variance implies a very strong explanatory power of the postulated model.

Path coefficients (β) were also analyzed to determine the strength and direction of the relationships that were hypothesized. The findings reveal that the effect of intrinsic motivation on job performance is strong positive (β = 0.518), followed by psychological empowerment (β = 0.271), and perceived organizational support (β = 0.128). All the path coefficients are above the recommended threshold of 0.10 (Hair et al., 2017).

To measure the statistical significance, bootstrapping with resamples of 5000 was performed in SmartPLS 4. In a two tailed test, and critical level of 5 percent, the critical t-value is 1.96(Hair et al., 2017). The findings indicate that all the structural pathways are significant, with t-values above 1.96 and p-values less than 0.05. An overview of the path coefficients of the structural model, t-values and p-values are summarized in Table 5.

Table 5
Results of T-statistics and P-value

Independent Variable	Dependent Variable	Relationship	Path coefficients (ß)	t - values	p-value
IM	JP	IM->JP	0.518	10.973	0
POS		POS->JP	0.128	3.419	0.001
PE		PE->JP	0.271	4.835	0

The results obtained by the structural model are that intrinsic motivation, perceived organizational support and perceived psychological empowerment display significant connections with the job performance. Accordingly, H1, H2, and H3 are supported.

Table 6
Hypotheses testing results

Hypotheses	Relationship	Result
H1: Intrinsic motivation has a significant effect on job performance among lecturers in Inner Mongolia, China.	IM->JP	Supported
H2: Perceived organizational support has a significant effect on job performance among lecturers in Inner Mongolia, China.	POS->JP	Supported
H3: Psychological empowerment has a significant effect on job performance among lecturers in Inner Mongolia, China.	PE->JP	Supported

A major criterion used in analyzing the quality of PLS-SEM model is model predictive relevance. Hair et al. (2017) suggest that a model is established when the Q^2 value of an endogenous construct exceeds zero. The predictive accuracy of the structural model in this study was determined through the SmartPLS 4 procedure of the PLSpredict.

As it has been depicted in the results the Q^2predict value of job performance (JP) is 0.600 which is considerably high than the recommended minimum of zero. This means that there is high predictive

relevance in the proposed model, which indicates that it can make accurate predictions of the endogenous construct.

Discussion

Intrinsic Motivation and Job Performance

Of the tested variables, the intrinsic motivation is the most significant factor related to the job performance of lecturers. It has a significantly greater coefficient than the other ones, which is an indication that there is a tendency in which performance is more closely linked with internal engagement than external conditions. Practically, lecturers who are highly engaged in their job will probably continue the work even when there are no powerful stimuli. They tend to remain engaged in teaching preparation, research and communication with the students over a period of time especially in activities that involve independent thinking and long term commitment. Such involvement seems to be less dependent on institutional conditions and more resilient to varying working circumstances.

This trend can be associated with the Self-Determination Theory, according to which the intrinsically regulated behavior is connected to the persistence and quality performance (Deci & Ryan, 2000; Gagné & Deci, 2005). These patterns have been documented in previous empirical studies, particularly in the context of complex work settings where attention and self-control are needed over a long period (Cerasoli et al., 2014; Kuvaas et al., 2017). This is especially apparent in higher education settings. Lecturers are fairly self-driven in their academic work and self-driven lecturers are less likely to reduce their engagement in teaching and research despite external support conditions, which could be high or low (Teodorescu, 2000; Oshagbemi, 1997; Bakker & Demerouti, 2017). Overall, intrinsic motivation appears to function as a driving force rather than facilitating conditions of performance. Hypothesis 1 is supported.

Perceived Organizational Support and Job Performance

Perceived organizational support has a positive relationship with job performance, although its effect appears to be smaller than that of intrinsic motivation. This indicates that the organizational support is a significant facilitating factor in performance support. When the lecturers are made aware of the fact that their input is being valued by their institution and that they are being given the right resources, then their job becomes easy to perform. Practical constraints can be minimized with the help of the availability of research funding, support services and flexible timetables so that they can devote more time to the core academic activities.

Organizational support may be perceived with respect to satisfaction of the basic psychological needs when it comes to motivation. It can increase competence through enabling growth, autonomy through reducing over-control and relatedness through establishing a feeling of belonging(Deci & Ryan, 2000; Rhoades & Eisenberger, 2002; Gagné & Deci, 2005). Within Self-Determination Theory, these factors do not weaken the process of motivational internalization but instead support it. Similar results have been

reported in empirical studies, especially at workplace, where support has been identified to be connected to engagement and task performance (Eisenberger et al., 2001; Chiang & Hsieh, 2012; Kurtessis et al., 2017). In places with unequal institutional resources, e.g., Inner Mongolia, this facilitative role is more apparent. Hypothesis 2 is supported.

Psychological Empowerment and Job Performance

Psychological empowerment is positively associated with job performance, with an effect that is moderate relative to the other predictors. This suggests that empowerment plays a meaningful role in influencing performance. The feeling of greater control over their work seems to stimulate initiative and long-term commitment. When lecturers feel that they are competent and capable of impacting their work processes, they are likely to be active in their work particularly those that involve judgment and creativity. This difference in work attitude is particularly evident in academic institutions where the work is not strictly structured, and the sense of responsibility may strongly influence work behavior. Autonomy and competence can be understood through this relationship in the context of the Self-Determination Theory. The reinforcement of both dimensions appears to be strengthened by psychological empowerment and consequently contributes to the work activity (Deci & Ryan, 2000; Spreitzer, 1995). Taken together, psychological empowerment contributes to job performance by satisfying the core psychological needs of Self-Determination Theory and facilitating the process of motivational internalization.

The positive performance results that are being associated with empowerment have also been reported earlier studies, particularly in jobs that involve discretionary control and accountability (Chiang & Hsieh, 2012; Gillet et al., 2012). This is in line with the need to manage teaching, research, and service responsibilities that lecturers are supposed to undertake in higher education with a significant level of independence. Hypothesis 3 is supported.

Taken together, the three predictors can be understood within a unified Self-Determination Theory framework, as they operate through a common mechanism of basic psychological need satisfaction. Intrinsic motivation reflects an internally regulated form of behavior that emerges when the needs for autonomy, competence, and relatedness are fulfilled (Deci & Ryan, 2000; Gagné & Deci, 2005). In contrast, perceived organizational support and psychological empowerment function as contextual conditions that facilitate the satisfaction of these same psychological needs (Rhoades & Eisenberger, 2002; Spreitzer, 1995). Through this shared mechanism, all three variables contribute to the internalization of motivation, which in turn enhances job performance.

In this respect, although all three variables are based on the same theoretical foundation, they reflect different levels of influence: intrinsic motivation operates at the individual level, whereas perceived organizational support and psychological empowerment operate at the contextual level. This difference enables them to be represented as parallel predictors of job performance, and this does not mean that they are dependent on one another.

The study extends the application of the Self-Determination Theory by demonstrating that other factors, such as personal motivation and organizational context variables, may act in the same process of fulfilling basic psychological needs, without resting only upon one bounded mediating mechanism such as intrinsic motivation. Rather, these variables are different but theoretically consistent pathways in which the need satisfaction is converted to job performance(Deci et al., 2017).

Conclusion

This research paper examines how intrinsic motivation, perceived organizational support, and perceived psychological empowerment influence job performance among lecturers in one of the universities in Inner Mongolia, China. The SmartPLS 4 was used to assess the measurement model and the results indicate that reliability, internal consistency, convergent, and discriminant validity were satisfactory. The structural model was further tested using bootstrapping tests which have been found to have given empirical evidence on the proposed relationships.

The results suggest that intrinsic motivation has a strong positive effect on job performance in lecturers, and internally motivated engagement in academic activities is very important. Organizational support is also perceived to be closely connected with job performance and this implies that higher levels of institutional care and recognition are associated with better performance in professional functions. Moreover, psychological empowerment has a significant positive impact on job performance, highlighting the importance of autonomy, competence, and perception of impact in academic performance outcomes.

In general, the findings indicate the combined significance of personal motivational factors and organizational support systems in enhancing job performance in higher education institutions in less-developed regions of China. Theoretically, the results support the applicability of Self-Determination Theory in explaining how the satisfaction of basic psychological needs contributes to improved work performance. Such results can also be understood in light of recent policy trends focusing on the digitalization and quality improvement of higher education in China, particularly in less-developed areas. The reinforcement of conducive institutional contexts and the motivation of lecturers are consistent with current national initiatives aimed at enhancing educational outcomes.

Declarations

Ethical approval The authors obtained ethical approval from the of the Research Ethics Committee (REC) of the INTI International University (INTI/11/2025/ I24026059), prior to data collection.

Informed consent

All participants provided written and verbal informed consent prior to participation. The authors ensured that all data collected would remain confidential and be used exclusively for academic purposes, in compliance with the Personal Data Protection Act (PDPA) 2010.

Author Contribution

Wenjing Gou carried out the main conception design, and analysis of data and drafted the manuscript. Lim Kim Yew contributed to the improvement of conception design, performed the analysis and finalizes and approved the final version of the manuscript. Tan Owee Kowang and Hu Mei carried out the acquisition of data, analysis and drafted the manuscript. Ong Choon Hee and Samreen carried out the planning of interpretation of data and revised the initial manuscript and contributed to the improvement of manuscript. All authors read and approved of the final manuscript.

Acknowledgement

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The authors gratefully acknowledge the financial support provided by INTI International University from Malaysia.

Data Availability

The datasets analyzed during the current study are available from the corresponding author on reasonable request. email: kimyew.lim@newinti.edu.my

References

1. Abawa A, Obse H (2024) Organizational culture and organizational performance: Does job satisfaction mediate the relationship? Cogent Bus Manage 11(1):2247127. https://doi.org/10.1080/23311975.2024.2247127
2. Alhosani AA, Ahmad SZ (2024) Charting creativity in government. Transforming Government: People Process Policy 18(1):33–48. https://doi.org/10.1108/TG-10-2023-0160
3. Astuty I, Udin U (2020) The effect of perceived organizational support and transformational leadership on affective commitment and employee performance. J Asian Finance Econ Bus 7(10):401–411. https://doi.org/10.13106/jafeb.2020.vol7.no10.401
4. Baard PP, Deci EL, Ryan RM (2004) Intrinsic need satisfaction: A motivational basis of performance and well-being in two work settings. J Appl Soc Psychol 34(10):2045–2068. https://doi.org/10.1111/j.1559-1816.2004.tb02690.x
5. Bagozzi RP, Yi Y (1988) On the evaluation of structural equation models. J Acad Mark Sci 16:74–94
6. Bakker AB, Demerouti E (2017) Job demands–resources theory: Taking stock and looking forward. J Occup Health Psychol 22(3):273–285. https://doi.org/10.1037/ocp0000056
7. Barrick MR, Mount MK (1991) The Big Five personality dimensions and job performance: A meta-analysis. Pers Psychol 44(1):1–26. https://doi.org/10.1111/j.1744-6570.1991.tb00688.x

8. Borman WC, Motowidlo SJ (1997) Task performance and contextual performance: The meaning for personnel selection research. Hum Perform 10(2):99–109. https://doi.org/10.1207/s15327043hup1002_3
9. Campbell BA, Coff R, Kryscynski D (2012) Rethinking sustained competitive advantage from human capital. Acad Manage Rev 37(3):376–395. https://doi.org/10.5465/amr.2010.0276
10. Cerasoli CP, Nicklin JM, Ford MT (2014) Intrinsic motivation and extrinsic incentives jointly predict performance: A 40-year meta-analysis. Psychol Bull 140(4):980–1008. https://doi.org/10.1037/a0035661
11. Chiang CF, Hsieh TS (2012) The impacts of perceived organizational support and psychological empowerment on job performance: The mediating effects of organizational citizenship behavior. Int J Hospitality Manage 31(1):180–190. https://doi.org/10.1016/j.ijhm.2011.04.011
12. Chin WW (1998) The partial least squares approach to structural equation modeling. Modern Methods for Business Research. Lawrence Erlbaum, Mahwah, pp 295–336
13. Conger JA, Kanungo RN (1988) The empowerment process: Integrating theory and practice. Acad Manage Rev 13(3):471–482. https://doi.org/10.2307/258093
14. Creswell JW (2014) Research design: Qualitative, quantitative, and mixed methods approaches. Sage, Thousand Oaks
15. Cudjoe J, Agyapong D, Light O, Frimpong SE, Opoku RK (2023) Psychological empowerment and job performance of star-rated hotels: The mediating role of emotional intelligence. Cogent Bus Manage 10(3):2266131. https://doi.org/10.1080/23311975.2023.2266131
16. Deci EL, Ryan RM (2000) The what and why of goal pursuits: Human needs and the self-determination of behavior. Psychol Inq 11(4):227–268. https://doi.org/10.1207/S15327965PLI1104_01
17. Deci EL, Olafsen AH, Ryan RM (2017) Self-determination theory in work organizations: The state of a science. Annual Rev Organizational Psychol Organizational Behav 4(1):19–43. https://doi.org/10.1146/annurev-orgpsych-032516-113108
18. Dysvik A, Kuvaas B (2011) Intrinsic motivation as a moderator on the relationship between perceived job autonomy and work performance. Eur J Work Organizational Psychol 20(3):367–387. https://doi.org/10.1080/13594321003590630
19. Eisenberger R, Huntington R, Hutchison S, Sowa D (1986) Perceived organizational support. J Appl Psychol 71(3):500–507. https://doi.org/10.1037/0021-9010.71.3.500
20. Eisenberger R, Armeli S, Rexwinkel B, Lynch PD, Rhoades L (2001) Reciprocation of perceived organizational support. J Appl Psychol 86(1):42–51. https://doi.org/10.1037/0021-9010.86.1.42
21. Gagné M, Deci EL (2005) Self-determination theory and work motivation. J Organizational Behav 26(4):331–362. https://doi.org/10.1002/job.322
22. Gao Q, Xu J, Wang Q, Wu C (2023) Improving psychological empowerment and employee performance. J Organizational End User Comput 35(3):1–22. https://doi.org/10.4018/JOEUC.321171

23. Gillet N, Fouquereau E, Forest J, Brunault P, Colombat P (2012) The impact of organizational factors on psychological needs and their relations with well-being. J Bus Psychol 27(4):437–450. https://doi.org/10.1007/s10869-011-9253-2
24. Hair JF, Hult GTM, Ringle CM, Sarstedt M (2014) A primer on partial least squares structural equation modeling (PLS-SEM). Sage, Thousand Oaks
25. Hair JF, Hult GTM, Ringle CM, Sarstedt M (2022) A primer on partial least squares structural equation modeling (PLS-SEM), 3rd edn. Sage
26. Hair JF, Hult GTM, Ringle CM, Sarstedt M (2017) A primer on partial least squares structural equation modeling (PLS-SEM), 2nd edn. Sage
27. Henseler J, Ringle CM, Sinkovics RR (2009) The use of partial least squares path modeling in international marketing. Adv Int Mark 20:277–319
28. Hofstede G (2001) Culture's consequences: Comparing values, behaviors, institutions and organizations across nations. Sage
29. Judge TA, Thoresen CJ, Bono JE, Patton GK (2001) The job satisfaction–job performance relationship: A qualitative and quantitative review. Psychol Bull 127(3):376–407. https://doi.org/10.1037/0033-2909.127.3.376
30. Kurtessis JN, Eisenberger R, Ford MT, Buffardi LC, Stewart KA, Adis CS (2017) Perceived organizational support: A meta-analytic evaluation of organizational support theory. J Manag 43(6):1854–1884. https://doi.org/10.1177/0149206315575554
31. Kuvaas B, Buch R, Weibel A, Dysvik A, Nerstad CGL (2017) Do intrinsic and extrinsic motivation relate differently to employee outcomes? J Econ Psychol 61:244–258. https://doi.org/10.1016/j.joep.2017.05.004
32. Manzoor F, Wei L, Asif M (2021) Intrinsic rewards and employee performance. Front Psychol 12:563070. https://doi.org/10.3389/fpsyg.2021.563070
33. Marin-Garcia JA, Bonavia T (2021) Empowerment and employee well-being: A mediation analysis study. Int J Environ Res Public Health 18(11):5822. https://doi.org/10.3390/ijerph18115822
34. Nguyen TM, Malik A, Budhwar P (2022) Knowledge hiding in organizational crisis: The moderating role of leadership. J Bus Res 139:161–172. https://doi.org/10.1016/j.jbusres.2021.09.026
35. Oshagbemi T (1997) Job satisfaction and dissatisfaction in higher education. Educ + Train 39(9):354–359
36. Podsakoff PM, MacKenzie SB, Lee JY, Podsakoff NP (2003) Common method biases in behavioral research: A critical review of the literature and recommended remedies. J Appl Psychol 88(5):879–903. https://doi.org/10.1037/0021-9010.88.5.879
37. Rhoades L, Eisenberger R (2002) Perceived organizational support: A review of the literature. J Appl Psychol 87(4):698–714. https://doi.org/10.1037/0021-9010.87.4.698
38. Ryan RM, Deci EL (2017) Self-determination theory: Basic psychological needs in motivation, development, and wellness. Guilford Press

39. Sarstedt M, Hair JF, Cheah JH, Becker JM, Ringle CM (2019) How to specify, estimate, and validate higher-order constructs in PLS-SEM. Australasian Mark J 27(3):197–211. https://doi.org/10.1016/j.ausmj.2019.05.003
40. Saunders M, Lewis P, Thornhill A (2009) Research methods for business students. Pearson
41. Spreitzer GM (1995) Psychological empowerment in the workplace: Dimensions, measurement, and validation. Acad Manag J 38(5):1442–1465. https://doi.org/10.2307/256865
42. Teodorescu D (2000) Correlates of faculty publication productivity: A cross-national analysis. High Educ 39(2):201–222. https://doi.org/10.1023/A:1003901018634
43. Udin U, Dharma RD, Dananjoyo R, Shaikh M (2023) The role of transformational leadership on employee performance through organizational learning culture and intrinsic work motivation. Int J Sustainable Dev Plann 18(1). https://doi.org/10.18280/ijsdp.180125
44. Zeng D et al (2022) Impact of intrinsic and extrinsic motivation on work engagement. Int J Environ Res Public Health 19(3):1284. https://doi.org/10.3390/ijerph19031284
45. Zhang Y, Kumar S, Huang X, Yuan Y (2023) Human capital quality and regional economic growth: Evidence from China. J Asian Econ 86:101593. https://doi.org/10.1016/j.asieco.2023.101593
46. National Ethnic Affairs Commission of the People's Republic of China (2018) Overview of Inner Mongolia Autonomous Region. https://www.neac.gov.cn/seac/c100486/201807/1078621.shtml
47. National Bureau of Statistics of China (2025a) Resident population by region: Inner Mongolia Autonomous Region. https://data.stats.gov.cn/
48. National Bureau of Statistics of China (2025b) Regional economic indicators: Inner Mongolia Autonomous Region. https://data.stats.gov.cn/
49. Ministry of Education of the People's Republic of China (2021) Outline of building China into a leading country in education by 2035. http://www.moe.gov.cn/
50. Ministry of Education of the People's Republic of China (2023) Statistical bulletin on the development of national education. http://www.moe.gov.cn/jyb_sjzl/
51. Statistics Bureau of Inner Mongolia Autonomous Region (2026) Growth of 4.7%: 2025 economic data of Inner Mongolia released. Inner Mongolia Economic Network. http://www.nmgsb.com.cn/system/yaowen/2026/01263I5H026.html