

Personality Traits and Work Performance of Teachers in Universities in China

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Abstract

This study aims to explore how the Big Five personality traits (BFPT) influence the work performance (WP) of teachers in universities and establish the mediating role of sense of belonging (SB) and used purposive sampling to survey 391 application-oriented university teachers in China and conducted analysis using PLS-SEM. The results showed that BFPT -Extraversion, Agreeableness, Neuroticism, and Openness were significantly positively correlated with teachers' WP, while Conscientiousness had no significant relationship with performance. In addition, the SB showed a mediating effect in all the above significant paths. This study includes recommendations, limitations and future research prospects. (96 words)

Keywords: Big Five Personality Traits; Work Performance; Sense of Belonging; Management of Application-Oriented University Teachers

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1.0 Introduction

1.1 Research Background

In the context of building a strong education-oriented nation in the new era, the core of higher education lies in the development of the teaching faculty and the continuous improvement of teacher performance (Cainday et al., 2023). As a crucial force in serving regional economic and social development (Gao et al., 2024), applied universities present unique and practical value in examining the relationship between faculty personality traits (PT) and WP. University teachers in applied institutions not only fulfill the traditional responsibilities of imparting knowledge and solving doubts but also shoulder the tasks of scientific research, talent cultivation, and community service. Their performance levels directly determine the scientific innovation capacity, teaching quality, and the effectiveness of applied talent training in these institutions (Zamani & Pouratashi, 2017).

PT influence individuals' behaviors at work. They not only affect the type of jobs individuals are likely to choose but also impact their WP. The BFPT (Kuo et al., 2024), formally conceptualized by McCrae and Costa (1985), include Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness. In organizational behavior research, these traits have been widely used to predict WP across different professions. In the context of university teaching, teachers who are extroverted, articulate, responsible, and intellectually active tend to receive higher evaluations in classroom teaching, whereas more introverted and socially reserved teachers often perform better in scientific research.

Beyond PT, scholars increasingly recognize that a sense of belonging may also influence teachers' WP. Sense of belonging refers to the feeling of being an inseparable part of a community or organization in which individuals feel valued, accepted, and supported

(Gao et al., 2024). Prior studies indicate that a strong sense of belonging can foster intrinsic motivation and lead to greater dedication to teaching, thereby improving WP.

However, little is known about the mechanism through which sense of belonging shapes the link between PT and WP in applied universities. While PT are acknowledged as important antecedents of faculty performance, the mediating role of sense of belonging has not been systematically examined, particularly in the context of applied higher education institutions. This gap highlights the need for empirical investigation into how psychological characteristics interact with organizational experiences to influence teacher performance.

1.2 Problem Statement

Although the relationship between PT and WP has been extensively examined across a wide range of professions (e.g., police officers, managers, salespeople, and skilled technicians), most studies have concentrated on occupational groups outside higher education. Within the education sector, research has primarily focused on primary and secondary school teachers, as well as preschool educators, while studies addressing faculty in applied universities remain scarce.

Furthermore, while sense of belonging is widely recognized as an important psychological factor that enhances teacher motivation and performance, its mediating role in the relationship between PT and WP has not been systematically explored in the context of applied higher education institutions (Gao, 2024). This omission limits understanding of how psychological characteristics interact with organizational experiences to influence faculty performance.

Addressing this gap is critical, as applied universities play a pivotal role in regional economic and social development. Empirical evidence on how PT and sense of belonging jointly affect teacher performance can provide meaningful implications for faculty recruitment and selection, professional development, talent structure optimization, and performance-based reforms. Accordingly, this study pursues three objectives:

- 1) To examine the relationship between PT and WP among faculty members in applied universities.
- 2) To investigate the mediating role of sense of belonging in the relationship between PT and WP.
- 3) To explore how different PT influence faculty members' sense of belonging in applied universities.

2.0 Literature Review

2.1 Theoretical Foundation

This study is grounded in two major theoretical perspectives: the Big Five Personality Theory and Social Identity Theory.

The Big Five Personality Theory posits that human personality can be broadly captured by five dimensions: Openness (ON), Conscientiousness (CT), Extraversion (ET), Agreeableness (AL), and Neuroticism (NT) (John & Srivastava, 1999; Srivastava, 2021). These traits are significantly associated with diverse work-related outcomes such as job satisfaction, organizational commitment, and WP. For example, employees high in Openness are more likely to adopt innovative approaches and engage in interdisciplinary activities, while Conscientiousness is generally linked to diligence and task completion (Barrick & Mount, 2021).

The Social Identity Theory emphasizes that individuals derive part of their self-concept from their membership in social groups (Tajfel & Turner, 2004). Within organizations, a strong sense of belonging enhances employees' commitment, motivation, and performance (Ashforth & Mael, 1989). In educational settings, faculty members who feel valued and integrated within their institution are more likely to engage productively in teaching, research, and service activities (Lambert & Morrison, 2022).

Integrating these two theories provides a basis for examining not only the direct effect of PT on faculty WP, but also the mediating role of sense of belonging (SB) in shaping these relationships.

2.2 Empirical Review and Research Gap

Recent years have witnessed growing interest in the performance of university faculty, particularly in applied institutions where teachers are expected to meet rigorous teaching and research targets while also contributing to regional development (Gao, 2024). This environment has intensified pressures, resulting in either excessive competition ("involution") or disengagement ("lying flat"), underscoring the need to explore psychological constructs such as PT and sense of belonging in relation to WP.

PT and WP. Extensive empirical evidence confirms that PT influence WP across professions such as managers, salespeople, and skilled technicians (Zamani & Pouratashi, 2017). Within higher education, studies suggest that extroverted, articulate, and intellectually active teachers tend to excel in classroom teaching, while introverted and reserved teachers may perform better in research. However, most of these studies focus on primary and secondary school teachers, or preschool educators, with limited research on applied university faculty in China.

Sense of belonging and WP. SB has been shown to enhance organizational commitment, intrinsic motivation, and performance outcomes (Lambert & Morrison, 2022; Jones & O'Brien, 2023). Teachers with a strong SB feel emotionally supported and integrated into the academic community, which fosters higher levels of engagement. Nonetheless, the potential of SB to function as a mediator between PT and WP has not been systematically examined, particularly in the applied university context (Gao, 2024).

Research gap. Despite the established links between PT, SB, and performance, existing literature leaves two gaps:

- 1) Few studies focus specifically on faculty members in applied universities, who face unique pressures and expectations.
- 2) The mediating role of SB in the relationship between PT and WP remains underexplored.

By addressing these gaps, this study aims to contribute to both theoretical understanding and practical implications for faculty development and performance management.

2.3 Hypotheses Development

2.3.1 Personality Traits and Work Performance

PT are widely regarded as stable psychological characteristics that influence individual attitudes and behaviors in organizational contexts. According to the Big Five Personality Theory, ON, CT, ET, AL, and NT capture the most relevant dimensions of personality that affect workplace outcomes (John & Srivastava, 1999; Srivastava, 2021).

Empirical research shows that ON enhances creativity, adaptability, and innovative teaching strategies, which are particularly valued in applied universities that emphasize practical knowledge and interdisciplinary engagement (LePine et al., 2020). CT has traditionally been associated with responsibility, persistence, and diligence, qualities that typically predict high levels of WP (Barrick & Mount, 2021). ET is linked to sociability and assertiveness, enabling teachers to actively engage in collaborative research and classroom discussions (Zamani & Pouratashi, 2017). AL fosters cooperation and empathy, helping teachers build positive relationships with students and colleagues, which in turn contributes to higher teaching and research effectiveness (Kuo et al., 2024).

In contrast, NT is associated with anxiety and emotional instability, which can undermine professional performance. However, prior studies suggest that in certain academic contexts, NT may not directly reduce WP if coping mechanisms are available (Mount et al., 2005).

Based on these arguments, the following hypotheses are proposed:

H1a: ON is positively associated with WP among faculty members in applied universities.

H1b: CT is positively associated with WP among faculty members in applied universities.

H1c: ET is positively associated with WP among faculty members in applied universities.

H1d: AL is positively associated with WP among faculty members in applied universities.

H1e: NT is positively associated with WP among faculty members in applied universities.

2.3.2 Personality Traits and Sense of Belonging

Sense of belonging (SB) refers to the extent to which individuals feel accepted, valued, and emotionally integrated within their organization (Baumeister & Leary, 2020). According to Social Identity Theory, employees with stronger identification with their institution develop higher levels of belonging, which in turn enhances motivation and engagement (Tajfel & Turner, 2004).

Existing research highlights that PT influence the ability to develop SB. ON fosters openness to new ideas and perspectives, which facilitates academic integration. CT promotes reliability and goal-oriented behavior, enabling individuals to gain institutional recognition. ET, through sociability and enthusiasm, enhances interpersonal relationships and collegial support networks (Lambert & Morrison, 2022). AL, emphasizing cooperation and trust, facilitates group cohesion and institutional harmony (Gao et al., 2023). Conversely, NT may lead to social withdrawal, stress, or negative self-perception, which reduces the likelihood of feeling included within the organization (Jones & O'Brien, 2023).

Thus, the following hypotheses are proposed:

H2a: ON is positively associated with SB.

H2b: CT is positively associated with SB.

H2c: ET is positively associated with SB.

H2d: AL is positively associated with SB.

H2e: NT is negatively associated with SB.

2.3.3 Sense of Belonging and Work Performance

SB is increasingly recognized as a key psychological resource that contributes to WP. When faculty feel valued and integrated, they are more motivated to engage in teaching, research, and service, which are crucial tasks in applied universities (Lambert & Morrison, 2022). Moreover, SB strengthens resilience under pressure, allowing teachers to manage high performance expectations effectively. Research has shown that teachers with stronger SB are more likely to achieve higher organizational commitment, job satisfaction, and overall productivity (Hom et al., 2021).

Accordingly, we hypothesize that:

H3: SB is positively associated with WP among faculty members in applied universities.

2.3.4 The Mediating Role of Sense of Belonging

Building on the Big Five Personality Theory and Social Identity Theory, SB may act as a psychological bridge between PT and WP. Faculty members with high ON, CT, ET, and AL are more likely to establish strong SB, which in turn fosters higher WP. For example, extraverted teachers may derive motivation from social interactions, which enhances their SB and subsequently boosts teaching effectiveness and research engagement. Similarly, agreeable individuals often build trust and collaboration, strengthening their SB and improving performance outcomes.

Conversely, individuals with high NT may find it difficult to establish SB due to anxiety or insecurity, weakening the positive effect of their other characteristics on performance. Thus, SB serves not only as a direct predictor of WP but also as a mediating mechanism through which PT exert their influence.

Therefore, the following hypotheses are proposed:

H4a: SB mediates the relationship between ON and WP.

H4b: SB mediates the relationship between CT and WP.

H4c: SB mediates the relationship between ET and WP.
H4d: SB mediates the relationship between AL and WP.
H4e: SB mediates the relationship between NT and WP.

This hypothesis model provides a comprehensive understanding of how faculty members' psychological characteristics contribute to their performance through both direct and indirect mechanisms, offering implications for talent management and institutional reform in applied higher education settings. The research model of this study is as follows Fig. 1.

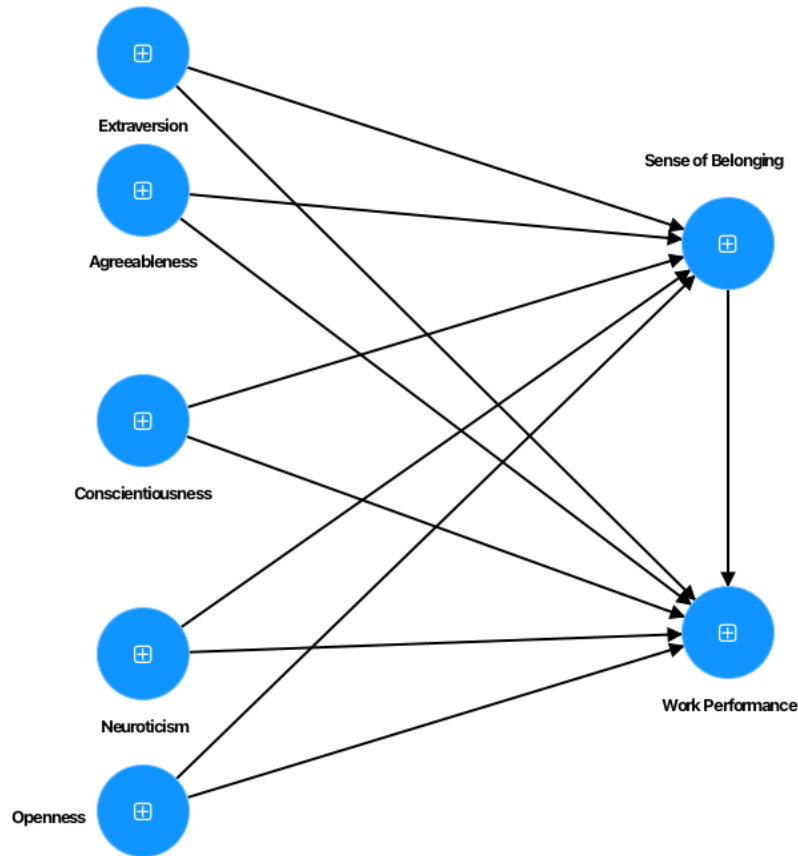


Fig. 1: Research Model

3.0 Methodology

3.1 Sampling and Data Collection

The research targeted a population of approximately 75,000 application-oriented university teachers in Sichuan Province, China. Given the large scale and geographic dispersion of this group, a purposive sampling method was adopted to ensure the inclusion of faculty members with relevant teaching, research, and community service responsibilities. This non-random sampling technique was appropriate for selecting participants whose professional roles aligned with the study's objectives (Palinkas et al., 2015).

Using G*Power 3.1.9.7 with a power of 0.95, the computed minimum sample size was 237. To achieve robust representation, the research team distributed 600 paper-based questionnaires through face-to-face administration between February and May 2025, in collaboration with participating universities. This approach enhanced item clarity and reduced the likelihood of missing data. Ultimately, 391 valid responses were obtained, yielding a response rate of 65.17%. Among the respondents, 29.62% (n = 93) were Lecturers, 61.14% (n = 192) were Associate Professors, and 9.24% (n = 29) were Professors.

3.2 Measurement Instruments and Data Analysis Techniques

All constructs in this study were measured using multiple items from previously validated scales on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). To ensure cross-cultural validity, a double translation procedure following Brislin (1986) was applied: the original English version was translated into Chinese and then back-translated into English to confirm semantic equivalence. BFPT: Each of the five traits (ON, CT, ET, AL, NT) was measured with four items adapted from John and Srivastava (1999).

WP: WP was assessed using five items adapted from Zamani & Pouratashi (2017), covering teaching effectiveness, research productivity, and community service. The items were slightly modified to reflect the responsibilities of faculty members in applied universities.

Sense of Belonging (SB): SB was measured with four items adapted from Hom et al. (2021), focusing on the degree to which teachers felt valued, accepted, and integrated within their institutions.

Before the main survey, a pilot test involving 40 university teachers was conducted to refine the questionnaire. Internal consistency reliability was confirmed, with Cronbach's alpha for all constructs exceeding 0.70 (Hair et al., 2021). To assess common method bias (CMB), Harman's single-factor test was performed; the first factor explained 32.9% of the total variance, which is below the 50% threshold, suggesting that CMB was not a significant concern (Podsakoff et al., 2003).

For data analysis, both SPSS and SmartPLS-SEM were employed. SPSS was used for preliminary data screening and descriptive statistics, while PLS-SEM was applied to evaluate the measurement and structural models, given its suitability for complex models and exploratory research designs (Hair et al., 2022).

4.0 Findings

4.1 Descriptive Analysis Results

The descriptive statistics and correlation analysis. The mean for ET, AL, CT, NT, ON, SB and WP were 4.271, 4.527, 4.132, 4.651, 4.632, 4.712 and 4.437, respectively, suggesting that respondents generally held positive perceptions of these dimensions. By Kline (2011), the skewness and kurtosis values for all variables fell within acceptable thresholds (i.e., skewness < 3.0 and kurtosis < 10.0), indicating no significant deviations from normality. Moreover, the strongest bivariate correlation observed was 0.898, which did not exceed the critical value for multicollinearity concerns, thus confirming the appropriateness of the dataset for further multivariate analysis.

4.2 Measurement Model Results

The measurement model was first tested for four aspects: indicator reliability, construct reliability, convergent validity, and discriminant validity. As presented in Table 1 and Figure 2, all factor loadings ranged from 0.750 to 0.911, surpassing the 0.70 threshold (Hair et al., 2022), indicating satisfactory item reliability. In line with Rahman et al. (2020), Cronbach's alpha and CR were used to assess internal consistency, with all values exceeding the 0.70 standard (Nunnally & Bernstein, 1994). These results confirm robust reliability and stable measurement across constructs.

Table 1. Construct validity and reliability.

Structure	Items	Factor Loadings	Alpha	CR	AVE
Agreeableness	AL1	0.883	0.880	0.917	0.735
	AL2	0.844			
	AL3	0.822			
	AL4	0.879			
Conscientiousness	CT1	0.902	0.893	0.926	0.758
	CT2	0.879			
	CT3	0.827			
	CT4	0.873			
Extraversion	ET1	0.831	0.851	0.899	0.690
	ET2	0.835			
	ET3	0.823			
	ET4	0.834			
Neuroticism	NT1	0.911	0.899	0.930	0.768
	NT2	0.867			
	NT3	0.859			
	NT4	0.867			
Openness	ON1	0.870	0.855	0.902	0.696
	ON2	0.837			
	ON3	0.825			
	ON4	0.804			
Work Performance	WP1	0.786	0.872	0.907	0.662
	WP2	0.750			
	WP3	0.852			
	WP4	0.828			
	WP5	0.849			
Sense of Belonging	SB1	0.903	0.891	0.925	0.754
	SB2	0.856			
	SB3	0.847			
	SB4	0.867			

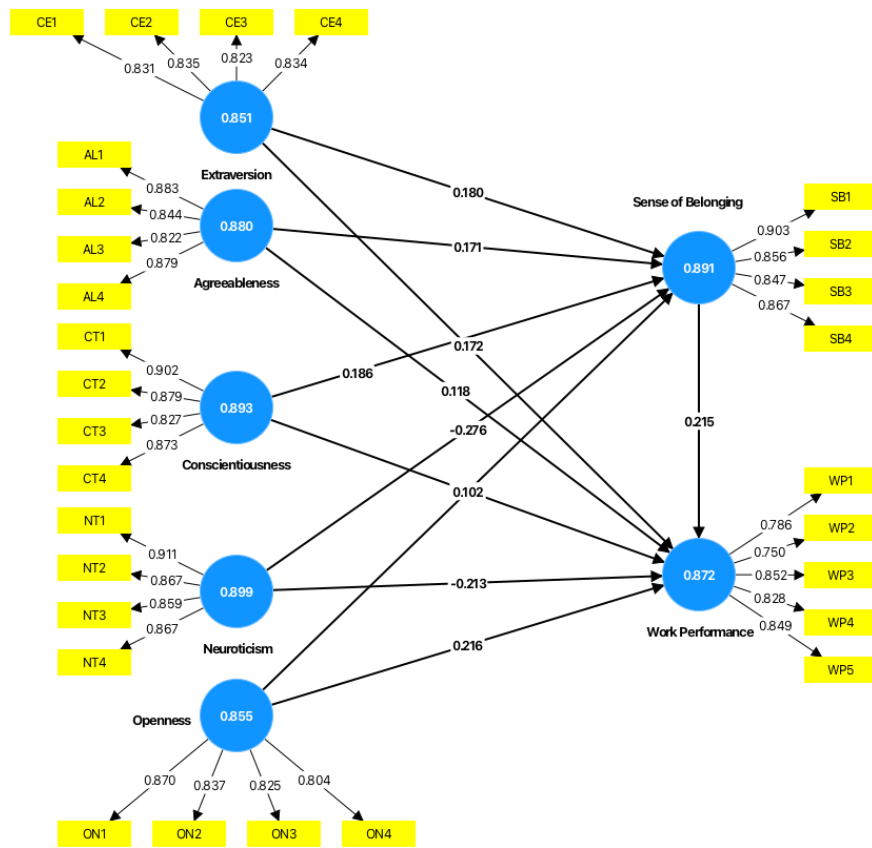


Fig. 2: Factor Loadings and Cronbach's alpha

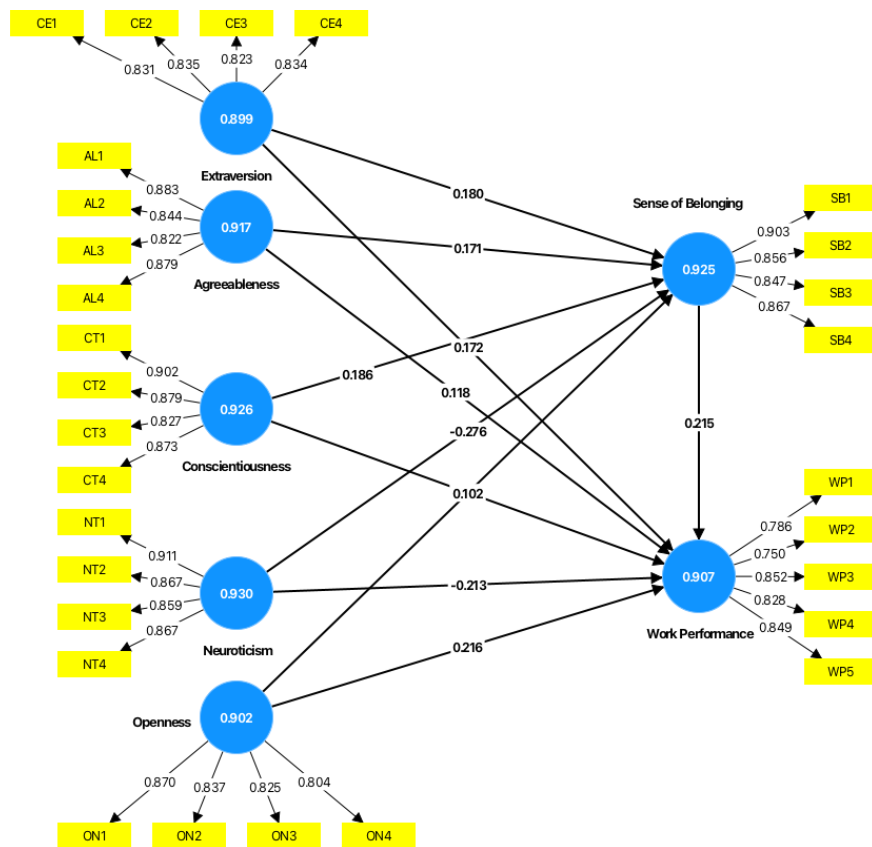


Fig. 3 Factor Loadings and Composite Reliability

Convergent validity was assessed using AVE values, which ranged from 0.662 to 0.768, exceeding the 0.50 cutoff (Hair et al., 2022). For discriminant validity, the HTMT criterion was applied following Henseler et al. (2016), with all values falling below 0.85, indicating sufficient distinction between constructs. Additionally, all VIF scores were under 5 (see Table 2), confirming no multicollinearity and supporting the model's robustness (Hair et al., 2022).

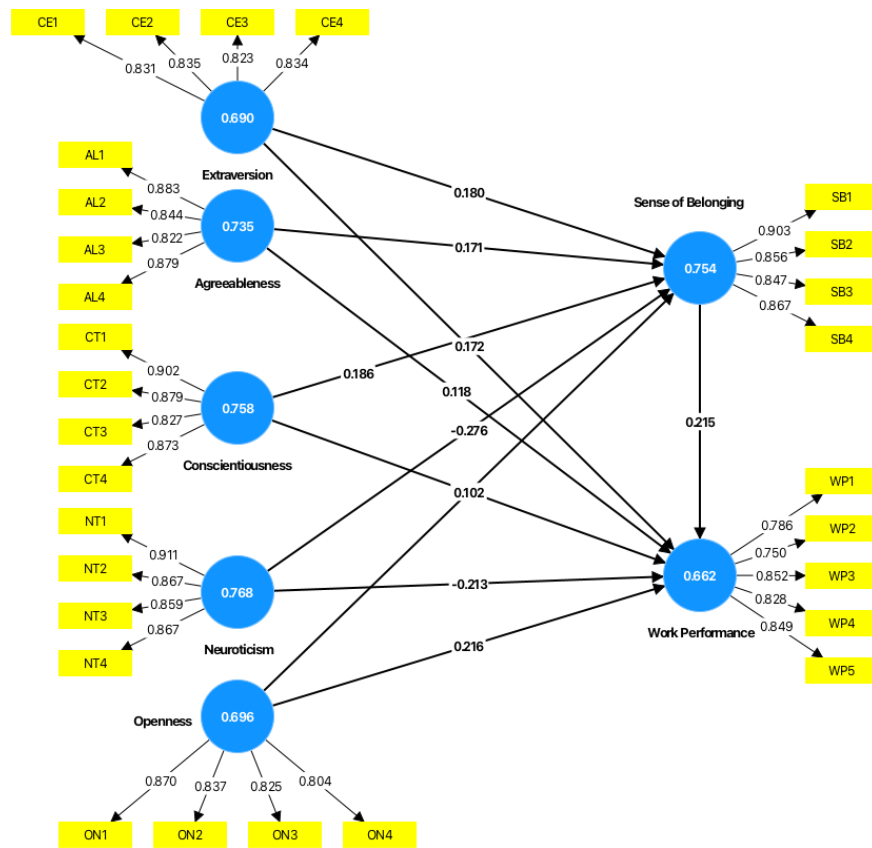


Fig. 4 Factor Loadings and AVE.

Table 2. HTMT criterion and VIF.

	AL	CT	ET	NT	ON	SB	VIF
CT	0.459						1.237
ET	0.559	0.383					1.237
NT	0.425	0.443	0.508				1.342
ON	0.378	0.471	0.431	0.399			1.391
SB	0.533	0.527	0.559	0.592	0.460		1.451
WP	0.532	0.463	0.609	0.605	0.565	0.642	1.324

4.3 Structural Model Results

Once the reliability and validity of the measurement model were confirmed, the structural model was evaluated using SmartPLS through a bootstrapping procedure with 5000 resamples (Hair et al., 2022). This stage focused on testing the hypothesized relationships by examining path coefficients along with their significance values. Hypotheses were considered supported when the p-value was less than 0.05 or the t-statistic exceeded 1.96 (Hair et al., 2022). Detailed outcomes of this analysis are shown in Table 3 and illustrated in Figure 4.

Table 3. Direct and indirect hypotheses testing results.

NO.	Structural Path	Coefficient	T-statistics	Test result
H1a	ON → WP	0.216***	4.711	Supported
H1b	CT → WP	0.026	0.575	Rejected
H1c	ET → WP	0.172***	3.619	Supported
H1d	AL → WP	0.118**	2.395	Supported
H1e	NT → SB	-0.276***	5.554	Supported
H2a	ON → SB	0.102**	2.120	Supported
H2b	CT → SB	0.186***	3.919	Supported
H2c	ET → SB	0.180***	3.963	Supported
H2d	AL → SB	0.171***	3.352	Supported
H2e	NT → SB	-0.276***	5.554	Supported
H3	SB → WP	0.269***	12.676	Supported

H4a	ON→SB→WP	0.022	1.812	Rejected
H4b	CT→SB→WP	0.040**	2.719	Supported
H4c	ET→SB→WP	0.039**	2.792	Supported
H4d	AL→SB→WP	0.037**	2.472	Supported
H4e	NT→SB→WP	-0.060***	2.984	Supported

1 Notes: *p < 0.05, **p < 0.01, ***p < 0.001 (two-tailed test).

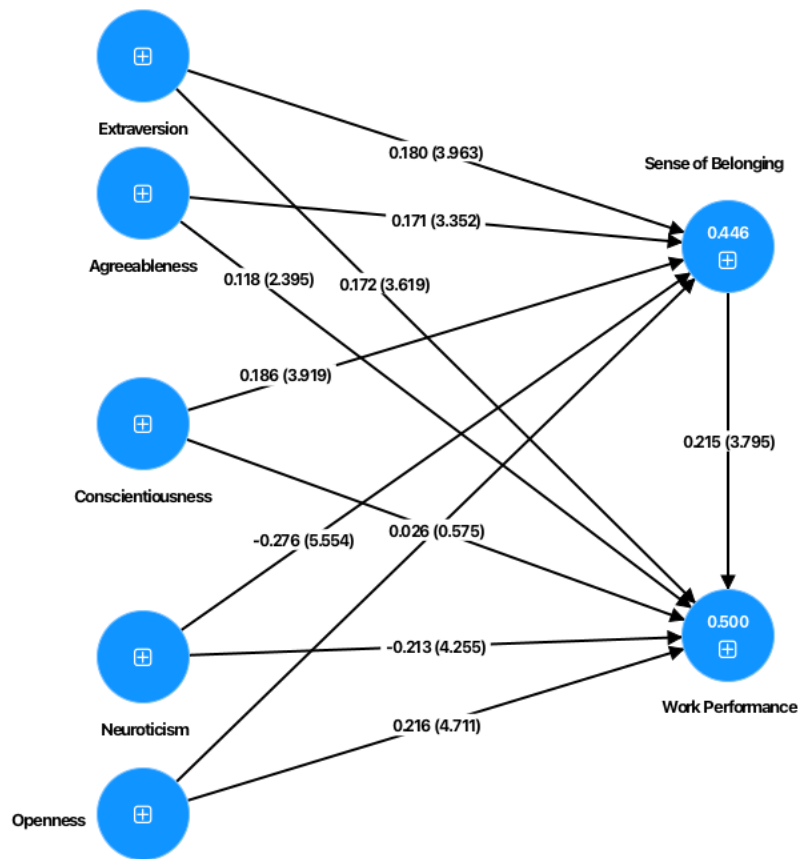


Fig. 4 Structural model(Path coefficients & T values & R²)

4.3.1 Direct Effects of Personality Traits on Work Performance

The results indicate that openness (ON) has a strong positive effect on WP ($\beta = 0.216$, $t = 4.711$, $p < 0.001$), suggesting that faculty members who are open to new experiences and innovative ideas tend to achieve better teaching and research outcomes. This is consistent with LePine et al. (2020), who found that openness enhances adaptability and creativity in academic settings.

Extraversion (ET) ($\beta = 0.172$, $t = 3.619$, $p < 0.001$) and agreeableness (AL) ($\beta = 0.118$, $t = 2.395$, $p < 0.01$) also significantly predict faculty performance. Extroverted faculty appear to benefit from their social engagement and collaborative approach, while agreeable faculty leverage their empathy and cooperative attitudes to foster effective teaching and teamwork.

In contrast, conscientiousness (CT) did not significantly predict performance ($\beta = 0.026$, $t = 0.575$, n.s.), a surprising finding given the literature often identifies CT as a robust predictor of performance (Barrick & Mount, 2021). One possible explanation is that in the context of applied universities, excessive conscientiousness may lead to overemphasis on routine tasks rather than innovation, diluting its direct influence.

4.3.2 Effects of Personality Traits on Sense of Belonging

All Big Five traits except neuroticism were positively related to sense of belonging. Specifically, conscientiousness ($\beta = 0.186$, $t = 3.919$, $p < 0.001$), extraversion ($\beta = 0.180$, $t = 3.963$, $p < 0.001$), agreeableness ($\beta = 0.171$, $t = 3.352$, $p < 0.001$), and openness ($\beta = 0.102$, $t = 2.120$, $p < 0.05$) significantly enhanced faculty's feeling of being valued and integrated in their institutions. This reflects Social Identity Theory (Tajfel & Turner, 2004), where PT shape individuals' identification with their groups.

Conversely, neuroticism (NT) negatively predicted belonging ($\beta = -0.276$, $t = 5.554$, $p < 0.001$), indicating that faculty with emotional instability may find it harder to feel connected, consistent with findings by Jones & O'Brien (2023).

4.3.3 Sense of Belonging as a Predictor of Work Performance

Sense of belonging showed a strong positive effect on WP ($\beta = 0.269$, $t = 12.676$, $p < 0.001$), supporting H3. Faculty who feel integrated into their academic community tend to be more motivated and engaged in their professional tasks. This confirms the argument of Lambert & Morrison (2022) that belonging is a key psychological driver of performance in educational institutions.

4.3.4 Mediating Effects of Sense of Belonging

The mediation analysis further clarifies the mechanism through which PT influence performance. Sense of belonging significantly mediated the effects of conscientiousness (H4b: $\beta = 0.040$, $t = 2.719$, $p < 0.01$), extraversion (H4c: $\beta = 0.039$, $t = 2.792$, $p < 0.01$), agreeableness (H4d: $\beta = 0.037$, $t = 2.472$, $p < 0.05$), and neuroticism (H4e: $\beta = -0.060$, $t = 2.984$, $p < 0.01$) on WP. This suggests that these traits exert their influence on performance largely through shaping faculty's belonging within the institution. Interestingly, the mediation effect of openness (H4a) was not significant ($\beta = 0.022$, $t = 1.812$, n.s.), implying that the positive effect of openness on performance is more direct rather than dependent on belonging.

4.3.5 Predictive Power of the Model

As reported in Table 4, the model demonstrates substantial explanatory power. The R^2 values for sense of belonging (0.446) and WP (0.500) both exceed the 0.26 threshold suggested by Cohen (1992), indicating meaningful predictive capacity. The Q^2 values for SB (0.201) and WP (0.281) were positive, confirming predictive relevance. Additionally, the SRMR value of 0.061 is below the 0.08 threshold, demonstrating good model fit (Hair et al., 2022).

Table 4. Predictive relevance of the model.

	R Square	$Q^2 (= 1-SSE/SSO)$
SB	0.446	0.201
WP	0.500	0.281

The findings highlight that openness, extraversion, and agreeableness significantly enhance faculty performance, while conscientiousness shows no direct effect but works indirectly through belonging. Neuroticism exerts a negative effect on belonging, thereby reducing performance. The mediating role of sense of belonging is particularly important, underscoring its function as a psychological bridge between PT and faculty outcomes. These results provide empirical evidence for integrating personality-based and social-identity perspectives in understanding teacher performance in applied universities.

5.0 Discussion

Among the five traits, Openness (ON), Extraversion (ET), and Agreeableness (AL) significantly and positively influenced WP. Faculty with high Openness are more likely to adopt innovative teaching methods and interdisciplinary research, aligning with the creative and practice-oriented demands of application-based universities (LePine et al., 2020; Chen, 2018). Extraverted teachers tend to actively engage in classroom discussions, collaborative research, and community service, enhancing their overall performance. Similarly, Agreeableness fosters harmonious relationships with students and colleagues, facilitating teamwork and classroom effectiveness. Unexpectedly, Conscientiousness (CT) showed no direct impact on WP. While it is often positively associated with performance in Western settings (Barrick & Mount, 2021), the rigid performance metrics in Chinese institutions may limit the effectiveness of diligence and discipline if they are not directly rewarded. Neuroticism (NT) did not directly affect WP, aligning with prior research indicating that emotional instability impacts performance only when it impairs interpersonal or stress-coping capacity (Mount et al., 2005). All five PT significantly predicted SB. ON, CT, ET, and AL were positively associated with SB, indicating that faculty with these traits are more likely to feel emotionally connected and accepted within their institutions. These traits promote collaboration, empathy, and openness to community-building (Baumeister & Leary, 2020). Conversely, NT negatively predicted SB, suggesting that emotionally unstable individuals are more likely to feel alienated and less integrated into the organizational culture (Tajfel & Turner, 1986).

SB was found to be a significant positive predictor of WP, supporting its mediating role. Mediation analysis confirmed that SB mediates the effects of CT, ET, AL, and NT on WP. This implies that faculty members with positive PT may perform better not only because of their inherent characteristics but also because they feel psychologically connected to their institution. For example, extraverted teachers may benefit from increased social interactions, which in turn strengthen their SB and boost performance. Interestingly, SB did not mediate the ON–WP relationship. This suggests that the performance-enhancing effects of Openness may operate through intrinsic motivation or intellectual engagement rather than institutional integration.

The results must be interpreted in light of the unique institutional and cultural setting of Chinese application-oriented universities. These institutions emphasize regional service, practical innovation, and outcome-based evaluation. In this context, traits such as sociability, adaptability, and collaboration are particularly valuable. Furthermore, the Confucian cultural emphasis on harmony and collectivism reinforces the importance of SB. Faculty who perceive alignment with institutional values and feel supported are more likely to perform well across teaching, research, and social service dimensions.

6.0 Conclusion& Recommendations

6.1 Conclusion

This study examined the relationships between PT, sense of belonging (SB), and WP among faculty members in application-oriented universities in Sichuan Province, China. By integrating the Big Five Personality Theory (John & Srivastava, 1999; Srivastava, 2021) with Social Identity Theory (Tajfel & Turner, 2004), the findings provide evidence that PT influence faculty performance both directly and indirectly through SB. Specifically, openness, extraversion, and agreeableness showed strong positive associations with WP, while

conscientiousness exerted no significant direct effect but operated indirectly through SB. Neuroticism negatively predicted SB, which in turn reduced WP.

These results make three notable contributions. First, they extend the scope of the Big Five Personality Theory into higher education, highlighting that the predictive power of PT is not uniform across contexts. The indirect-only effect of conscientiousness challenges dominant Western-centric perspectives (Barrick & Mount, 2021), suggesting that in collectivist cultures such as China, diligence alone may not guarantee performance unless accompanied by social integration. Second, the findings enrich Social Identity Theory by empirically confirming the mediating role of SB. Faculty who perceive themselves as valued members of their institutions tend to translate their personality strengths into higher performance, supporting earlier arguments on the importance of belonging for organizational outcomes (Ashforth & Mael, 1989; Hom et al., 2021). Third, the study contributes to contextualized understanding of WP in applied universities, where teaching, research, and service expectations differ from traditional research-intensive institutions.

Overall, the study underscores the need to move beyond universalist assumptions of personality-performance links and to recognize the crucial role of social integration in shaping faculty outcomes.

6.2 Recommendations

The findings offer important implications for policymakers, university managers, and faculty members.

6.2.1 For policymakers:

National and regional authorities should broaden faculty evaluation criteria to include not only research output but also teaching quality and community service. Such an approach aligns with China's educational reform agenda to cultivate applied talents and balance academic excellence with social contributions (Gao, 2024). Additionally, funding programs should prioritize projects that foster collaboration and academic communities, thereby strengthening faculty SB.

6.2.2 For university managers:

Institutions should incorporate personality assessments in recruitment and faculty development programs to better match individual traits with institutional needs. For example, extroverted and agreeable faculty may be encouraged to take leadership in collaborative research, while open individuals can be supported in curriculum innovation. Moreover, universities should create inclusive organizational climates by providing mentorship schemes, recognition programs, and peer-learning platforms that reinforce SB. Given the negative effects of neuroticism on belonging, targeted interventions such as counseling services, stress management workshops, and psychological support systems are essential to safeguard emotional well-being and sustain faculty performance. Leadership training should also emphasize inclusive and empowering practices, enabling managers to nurture belonging and motivation within academic teams.

6.2.3 For individual faculty members:

The findings suggest that personal development in openness and extraversion—such as engaging in interdisciplinary activities, academic networking, and active classroom interaction—may significantly enhance performance. Faculty should also actively participate in institutional communities, thereby reinforcing their own SB and benefiting from collective resources.

By addressing these three levels, the study contributes actionable insights into how applied universities can enhance faculty outcomes and build sustainable academic environments.

6.3 Limitations and Future Research

Despite these contributions, the study has several limitations that open avenues for future research.

First, the cross-sectional design limits causal inference. Although the findings demonstrate significant associations, longitudinal or panel data would allow researchers to track how PT and SB interact with WP over time.

Second, the geographic focus on Sichuan Province restricts generalizability. Faculty in other provinces or in research-intensive universities may face different institutional pressures. Future studies should adopt a multi-site or cross-regional approach, and cross-cultural comparisons would provide further insight into how collectivist versus individualist contexts shape the personality–performance relationship (Lambert & Morrison, 2022).

Third, the reliance on self-reported data introduces the risk of social desirability bias. Future research should incorporate alternative measures, such as supervisor evaluations, student feedback, or objective indicators like teaching evaluations and publication records, to triangulate findings.

Finally, the study did not examine moderating variables such as leadership style, organizational climate, or digital teaching environments, which may influence the extent to which PT and SB affect WP. Future research could explore how inclusive leadership or post-pandemic online learning contexts shape these dynamics, providing a richer understanding of boundary conditions.

By addressing these limitations, future research can build on the present study to develop more robust and context-sensitive models of faculty performance.

Paper Contribution to Related Field of Study

This study reveals how PT influence faculty WP through sense of belonging, contributing to theoretical and empirical research in educational management and organizational behavior.

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