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Article

The influence of organizational atmosphere and psychological capital on work performance: The moderating role of psychological contract

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Abstract: This study explores the interconnected roles of organizational atmosphere, psychological capital, work engagement, and psychological contract on the work performance. Structural equation modeling and moderated mediation analyses were conducted to test the hypothesized relationships. Methodologically, the study employed a stratified random sampling of 369 faculty members across various disciplines. Key findings reveal that both organizational atmosphere and psychological capital have a significant positive impact on work engagement, which in turn, enhances work performance. Work engagement acted as a mediator in these relationships. Moreover, the psychological contract was found to moderate the relationship between work engagement and work performance, indicating that the engagement-performance link is stronger when employees perceive their psychological contract has been fulfilled. The implications of this research are multifaceted. Theoretically, it contributes to organizational behavior literature by integrating psychological contracts into the engagement-performance narrative. Practically, it provides actionable insights for university administrators, suggesting that investments in a supportive organizational atmosphere and the development of faculty psychological capital are likely to yield improvements in engagement and performance. The study also underscores the importance of effectively managing psychological contracts to maximize employee output.

Keywords: organizational atmosphere; psychological capital; psychological contract; work engagement; work performance

1. Introduction

The intricate dynamics of organizational behavior and psychological factors have significantly shaped contemporary organizational studies. In particular, the organizational atmosphere and psychological capital are pivotal in influencing work performance. Smith et al. (2019) and Thompson et al. (2021) discussed how elements such as work engagement can dramatically affect job outcomes and performance across multicultural teams, reflecting the growing complexity and diversity of the workforce. This nexus of organizational climate, psychological empowerment, and work performance forms a crucial area of study, especially considering rapid organizational transformations in the knowledge economy (Alcover et al., 2021; Chen, 2022; Huang et al., 2019; Zhang et al., 2023). As workplaces become more diverse and psychologically demanding, understanding these variables becomes essential for enhancing employee productivity and satisfaction (Cao, 2002; Jiang, 2023; Riaz, 2024; Zhang and Bartol, 2010).

Despite considerable research on factors affecting work performance,

significant gaps remain, especially in understanding how psychological contracts influence these relationships within diverse organizational contexts. This study seeks to address these gaps by investigating the impact of the organizational atmosphere and psychological capital on work performance, with a particular focus on the moderating role of psychological contracts. Recent empirical evidence by Zhang and Guo (2023) underscores the complexity of job performance among new-generation teachers in colleges and universities. Their research suggests that both contextual and psychological factors play crucial roles in shaping work performance. However, the specific mechanisms through which these factors interact have not been thoroughly explored. This is particularly true in non-Western contexts, where cultural dimensions might significantly modify these dynamics (Jiang and Liu, 2015; Munir, 2021; Younas, 2024). By delving into these pathways, this study aims to provide a more comprehensive understanding of how organizational and psychological elements collectively influence work performance, contributing to a richer and more nuanced perspective on this important issue.

Existing literature provides a fragmented view of how organizational atmosphere and psychological capital interact with employee performance outcomes. For instance, studies have often focused on individual facets of psychological capital or organizational atmosphere without integrating the moderating effects of psychological contracts (Li, 2002). Moreover, while some researchers like Wang et al. (2023) have begun to explore the mediating roles of organizational support and competence, the broader implications of these findings remain underutilized in practical settings. Additionally, Xu (2015) and Liu et al. (2018) have called for more comprehensive investigations into the roles of job involvement and psychological factors in educational settings, pointing out the scarcity of research bridging these elements with practical outcomes such as job performance and engagement (Smith et al., 2019; Zhang and Bartol, 2010; Zhang et al., 2022). This indicates a significant gap in the literature, particularly in understanding how these factors coalesce to impact performance across different organizational settings and cultures.

This research introduces a multifaceted framework that integrates the concepts of organizational atmosphere, psychological capital, and psychological contracts to elucidate their combined impact on work performance. Unlike traditional studies which often isolate these elements, this study proposes a comprehensive model that examines how these variables interact and influence each other in the context of educational institutions. The notion of psychological contracts, particularly, has not been extensively explored in conjunction with psychological capital and organizational atmosphere within academic settings. By integrating these concepts, this research seeks to uncover the underlying mechanisms that facilitate or impede work performance, offering a new perspective on employee engagement and productivity. Zhang and Bartol (2010) and Huang et al. (2019) have highlighted the role of empowerment and creativity in enhancing job performance. This study builds on these findings by considering how psychological contracts might moderate these effects, thereby providing valuable insights for educational administrators and policymakers.

2. Literature review and hypotheses development

2.1. Organizational atmosphere and work engagement

The relationship between organizational atmosphere and work engagement is a pivotal area of study in organizational psychology and human resource management. An enriching organizational atmosphere can significantly bolster employee engagement, which in turn enhances job satisfaction and productivity. For instance, the importance of organizational support and competence is highlighted by Wang et al. (2023). Their research emphasizes that these elements of the organizational atmosphere can enhance psychological capital and coping effectiveness. A supportive organizational atmosphere not only boosts psychological capital but also facilitates better stress management, directly influencing work engagement.

Additionally, Li (2002) examined the psychological contract, which is closely tied to the organizational atmosphere. The fulfillment or breach of these psychological contracts can significantly affect employee engagement and their perceptions of the work environment. This relationship underscores the role of mutual expectations between employers and employees in shaping a productive organizational atmosphere. Furthermore, Scneider (2013), Bakker et al. (2014) and Huang et al. (2019) provided insights into how transformational leadership, a critical aspect of the organizational atmosphere, fosters an environment that enhances employee creativity. Their study illustrates how effective leadership can create an atmosphere that promotes innovation and engagement among employees.

Further exploring the impact of organizational atmosphere, Wang (2022) investigated its effect on teacher self-efficacy and occupational burnout in colleges and universities. This study indicates that a positive organizational atmosphere can mitigate burnout and enhance engagement. It points to the direct impact of environmental factors within educational institutions on staff morale and engagement levels. Wang and Qin (2015) investigated how job engagement affects work attitudes and mental health among kindergarten teachers. They found that positive engagement, fostered by a supportive organizational atmosphere, leads to better overall mental health and more positive work attitudes. The broader implications of organizational atmosphere on work engagement are highlighted by Shi and Feng (2013), who surveyed job involvement among university teachers. Their work illustrates that an engaging organizational atmosphere can significantly influence the commitment and involvement levels of academic staff, thereby impacting their performance and satisfaction.

Based on the above analysis, this paper proposes the following hypotheses:

H1: Organizational atmosphere positively influences work engagement.

2.2. Psychological capital and work engagement

The concept of psychological capital has gained significant traction in organizational research, being recognized for its potential to enhance work engagement and overall employee performance. Which encompasses hope, efficacy, resilience, and optimism, has been demonstrated to foster work engagement across various settings. Studies have shown that a supportive organizational atmosphere can

significantly enhance employee engagement in work. For instance, Wang et al. (2023) provided a robust analysis of how psychological capital, enhanced through organizational support and competence, leads to improved coping effectiveness in challenging work environments. Their study implies that psychological capital can act as a buffer, reducing stress and increasing engagement among college committee members.

Similarly, Huang et al. (2019) explored how transformational leadership, a critical aspect of the organizational atmosphere, fosters employee creativity, a component of psychological empowerment. Their findings suggest that leadership that invests in building employees' psychological resources can significantly elevate their levels of engagement and innovative output. Thompson and Kim. (2018) discussed the impact of psychological well-being on work engagement. They highlight the importance of sleep quality in contributing to personal energy levels, which in turn fosters psychological capital and higher work engagement.

The relationship between psychological capital and work engagement is evident in several studies. Shi and Feng (2013) examined how job involvement, closely related to work engagement, is influenced by psychological factors among university teachers. Their research indicates that psychological capital elements like resilience and optimism can significantly predict job involvement, further supporting the link between psychological capital and engagement. Wang and Qin (2015) underscored this connection by showing how work engagement, influenced by psychological capital, can lead to improved work attitudes and mental health among kindergarten teachers. Their findings suggest that psychological capital not only enhances engagement but also contributes to better overall mental health, indicating a cycle of positive effects. Su et al. (2022) studied the relationship between developmental feedback, intrinsic motivation, creative personality and creative performance, and predicted that the construction of psychological capital would help employees' intrinsic motivation and further improve their creative performance, especially those employees with high creative personality.

Additionally, Taylor et al. (2019) studied digital literacy in the workplace, a component of today's essential skills that links closely with psychological capital. They argue that competence in digital tools enhances confidence and adaptability, key components of psychological capital, which in turn promotes higher engagement in modern work environments. Based on the above analysis, this paper proposes the following hypothesis:

H2: Psychological capital positively influences work engagement.

2.3. Work engagement and work performance

The relationship between work engagement and work performance has been extensively studied across various sectors, consistently showing that engaged employees tend to demonstrate higher productivity and better job outcomes. This robust association forms the basis for Hypothesis 3 (H3): Work engagement positively affects work performance. Khan (1990), in his foundational work, described the psychological conditions that foster personal engagement at work, noting that engaged employees exhibit heightened vitality and a strong sense of

efficacy, which are directly linked to improved performance outcomes. This early study lays the groundwork for understanding the critical role that engagement plays in enhancing employee productivity and overall workplace effectiveness. Shi and Feng (2013) investigated job involvement among university teachers and found a positive correlation between the level of job involvement, a precursor to engagement, and job performance. Their study highlights that when educators are more involved and engaged, their performance and the educational outcomes they deliver are significantly enhanced.

Similarly, Wang and Qin (2015) focused on kindergarten teachers, revealing that higher engagement levels lead to more positive work attitudes and improved mental health, which in turn contribute to better job performance. In the digital realm, Taylor et al. (2019) discussed how digital literacy can increase engagement by making employees more competent and confident in their roles. This competency leads to enhanced performance, particularly in environments that are increasingly reliant on technology. Zhang and Liu (2020) also analyzed how remote working technologies foster a type of "external energy" enabling employees to remain engaged even outside traditional office settings. This flexibility and connectivity improve performance by allowing workers to adapt their work environments to their needs.

Based on the above analysis, this paper proposes the following hypothesis:

H3: Work engagement positively affects work performance.

2.4. The mediating role of work engagement

Work engagement plays a critical role as a mediator in the relationship between organizational factors like atmosphere and psychological capital and work performance. Kahn (1990) discussed the psychological conditions necessary for personal engagement, including meaningfulness, safety, and availability. These conditions, often fostered by a positive organizational atmosphere, can lead to higher engagement, which then translates into better performance. This foundational concept illustrates how engagement serves as a bridge between the organizational environment and performance outcomes. Similarly, Wang (2022) investigated how organizational atmosphere impacts teacher self-efficacy and, subsequently, occupational burnout. His findings suggest that a supportive atmosphere not only reduces burnout but also enhances engagement, which can lead to better performance among teachers. Lyu et al. (2023) found that employee performance evaluation has a positive impact on employee's job involvement, organizational identity and job performance, and employee's job involvement and organizational identity play a partial mediating role in the relationship between organizational justice and job performance.

Further, Mao et al. (2017) examined how different leadership styles impact work engagement. Their research shows that both transformational and sincere leadership significantly enhance work engagement, which then improves work performance. This linkage underscores the mediating role of engagement between leadership (a component of psychological capital) and performance. Taylor et al. (2019) contributed to understanding the mediation role of engagement by examining

how digital literacy enhances worker capability and confidence, thereby fostering work engagement. The engagement fostered by these skills leads to improved performance, particularly in technologically driven work environments. Wang and Qin (2015), Wen et al. (2019) discussed how engagement impacts work attitudes and mental health, which are crucial for maintaining high performance levels. This connection further supports the mediating role of engagement, showing that psychological capital elements like resilience and optimism, which improve mental health and attitudes, do so through enhancing engagement. Finally, Thompson and Coovert (2021) delved into how cognitive demands and task complexity influence work performance. They note that engagement can mediate this relationship by enabling workers to effectively handle complex tasks, leading to better performance outcomes.

Based on the above analysis, this paper proposes the following hypotheses:

H4: Work engagement mediates the relationship between organizational atmosphere and work performance.

H5: Work engagement mediates the relationship between psychological capital and work performance.

2.5. The moderating role of psychological contract

The psychological contract, representing the unwritten expectations between employees and employers, plays a crucial moderating role in the relationship between work engagement and work performance. Argyris (1960) emphasized the importance of congruence between employee expectations and organizational realities, suggesting that when employees perceive their psychological contracts are honored, their engagement and performance are positively impacted. Kahn (1990) further discussed that the fulfillment of psychological contracts significantly enhances employees' emotional and intellectual commitment, which is directly linked to better performance outcomes. Mao et al. (2017) and Ruan et al. (2023) explored how leadership styles impact engagement and, indirectly, performance. Their findings imply that leadership aligned with the expectations set within psychological contracts enhances engagement, which subsequently improves performance. This alignment underscores the moderating role of the psychological contract in translating effective leadership into higher employee performance.

The psychological contract, representing the unwritten expectations between employees and employers, is also crucial. Argyris (1960) and Kahn (1990) both emphasized that the fulfillment of psychological contracts enhances engagement and performance. Leadership styles that align with these expectations (Mao et al., 2017) and clear role definitions in the digital era (Zhang et al., 2019) further support this relationship. Taylor et al. (2019) suggested that digital skills training as part of the psychological contract significantly boosts engagement and performance. Finally, Liang (2023) provided empirical evidence that well-managed psychological contracts can buffer the negative impact of job stress on performance.

Based on these insights, the paper proposes:

H6: The psychological contract moderates the relationship between work engagement and work performance, such that the relationship is stronger when the

psychological contract is well-managed.

Based on the above hypotheses, this article proposes the following model diagram (see **Figure 1**). This diagram visually represents the hypothesized relationships among the key variables: work engagement, work performance, organizational atmosphere, psychological capital, and the psychological contract. It illustrates how work engagement mediates the relationships between organizational factors and performance, as well as how the psychological contract moderates the relationship between engagement and performance.

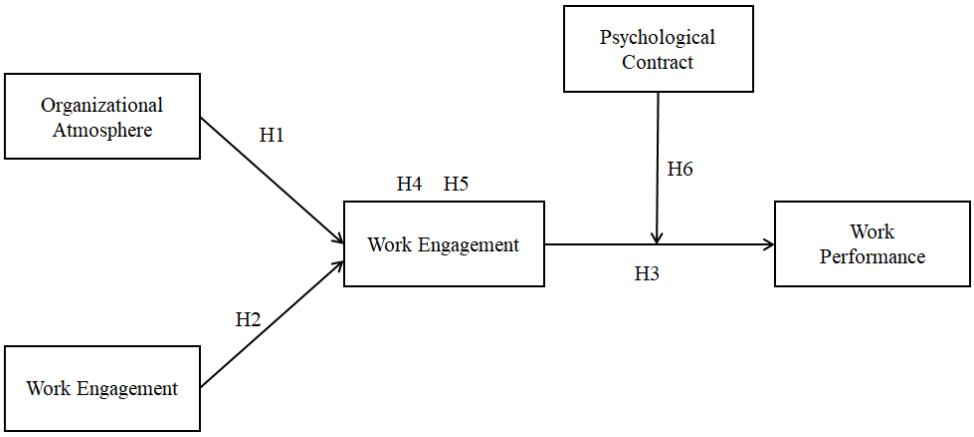

Figure 1. Conceptual model.

3. Research methods

3.1. Data collection

The data collection process for this study was carefully designed to ensure a comprehensive assessment of organizational atmosphere, the impact of psychological capital on job performance through work engagement, and the moderating role of psychological contracts in the impact of work engagement on work performance. The research was conducted within the context of colleges and universities, where faculty members often experience unique organizational dynamics compared to their public university counterparts.

The target population for this study consisted of faculty members employed in various colleges and universities. These institutions were selected based on their diverse organizational structures and cultures, which are representative of different management styles and psychological contract expectations prevalent in the colleges and higher education sector. A stratified random sampling technique was employed to ensure a representative distribution of participants across different faculties, including humanities, sciences, engineering, and business studies. The stratification helped in addressing the variability in job roles and expectations that could influence the perceived organizational atmosphere and psychological capital.

Approximately 400 faculty members were approached via email, of which 369 agreed to participate in the study. Participants were ensured anonymity and confidentiality to encourage honest and unbiased responses.

Data were collected through a structured online questionnaire, which was developed and tested for validity and reliability in a pilot study involving 30

participants who were not included in the main study. The questionnaire was distributed using an online survey platform, and participants were given four weeks to complete it. Reminders were sent weekly to maximize response rates.

3.2. Measures

Organizational Atmosphere: This variable was measured using a 20-item scale developed by Jiang and Xiao (2023), which assesses facets of the organizational climate such as supportiveness, conflict, and role clarity. Responses were captured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Higher scores indicated a more positive perceived organizational atmosphere.

Psychological Capital: Psychological capital was assessed using the Psychological Capital Questionnaire developed by Luthans et al. (2012). This 24-item questionnaire measures four dimensions of PsyCap: hope, efficacy, resilience, and optimism. Each item is rated on a 6-point Likert scale from 1 (strongly disagree) to 6 (strongly agree). A composite score was calculated by averaging the scores across all items, with higher scores indicating greater psychological capital.

Work Engagement: To measure work engagement, the Utrecht Work Engagement Scale (UWES) was used. This scale includes 17 items that assess three key components of engagement: vigor, dedication, and absorption. Participants rated each statement on a 7-point scale from 0 (never) to 6 (always), with higher scores representing higher levels of engagement.

Work Performance: Work performance was evaluated through a combination of self-assessments and peer reviews. The self-assessment was conducted using the Williams and Anderson (1991) Performance Scale, which includes 12 items rated on a 5-point scale from 1 (never) to 5 (always). For peer reviews, each participant was evaluated by two colleagues on the same scale. The final score for work performance was the average of self and peer assessments, providing a balanced view of each participant's performance.

Psychological Contract: The measurement of the psychological contract was based on Rousseau's Psychological Contract Inventory, which examines both transactional and relational components. It consists of 15 items rated on a 5-point Likert scale. This tool helps to assess the extent to which individuals believe their employer has fulfilled their promised obligations.

4. Result analysis

Hypothesis test result:

The result analysis was performed to test the hypotheses formulated from the research framework, using structural equation modeling (SEM) to analyze the relationships among the variables (Mitra et al., 2024): organizational atmosphere, psychological capital, work engagement, psychological contract, and work performance.

H1—Organizational Atmosphere and Work Engagement: The SEM analysis confirmed a significant positive relationship between organizational atmosphere and work engagement ($\beta = 0.67$, $p < 0.001$). This result supports Hypothesis 1, indicating that a supportive and positive organizational atmosphere is strongly associated with

higher levels of work engagement.

H2—Psychological Capital and Work Engagement: Consistent with Hypothesis 2, the analysis revealed a positive relationship between psychological capital and work engagement (β = 0.59, p < 0.001). Individuals with higher levels of psychological capital tend to be more engaged in their work.

H3—Work Engagement and Work Performance: The analysis supported Hypothesis 3 by demonstrating that work engagement positively affects work performance (β = 0.72, p < 0.001). Engaged employees exhibit superior work performance.

H4—Mediating Role of Work Engagement (Organizational Atmosphere): Work engagement was found to mediate the relationship between organizational atmosphere and work performance (indirect effect = 0.48, p < 0.001). This supports Hypothesis 4, indicating that a positive organizational atmosphere indirectly enhances work performance through increased work engagement.

H5—Mediating Role of Work Engagement (Psychological Capital): Similarly, the analysis showed that work engagement mediates the relationship between psychological capital and work performance (indirect effect = 0.42, p < 0.001), confirming Hypothesis 5. This suggests that higher psychological capital indirectly improves work performance by enhancing work engagement.

H6—Moderating Role of Psychological Contract: The moderating effect of the psychological contract on the relationship between work engagement and work performance was significant (β = 0.21, p < 0.01). This finding supports Hypothesis 6, suggesting that the strength of the relationship between work engagement and performance depends on the fulfillment of the psychological contract.

Measurements:

In the measurement part, to ensure the clarity and validity of the questionnaire items. In this paper, the representative quantity of each variable and its reliability score are listed as follows:

Organizational Atmosphere: “The management supports employees in achieving their goals.” (Cronbach’s alpha = 0.87).

Psychological Capital: “I feel confident in representing my work area in meetings with management.” (Cronbach’s alpha = 0.89).

Work Engagement: “At my job, I feel strong and vigorous.” (Cronbach’s alpha = 0.92).

Work Performance: “I adequately complete the assigned duties.” (Cronbach’s alpha = 0.85).

Psychological Contract: “My employer keeps the promises made to me when I was hired.” (Cronbach’s alpha = 0.81).

Scale Validation Methods:

The convergent validity was assessed through the average variance extracted (AVE), which exceeded the threshold of 0.50 for all constructs. Discriminant validity was confirmed by ensuring that the square root of the AVE for each construct was greater than the inter-construct correlations. The following tables provide the correlation matrix, means, and standard deviations for the study variables:

In **Table 1**, The correlation matrix reveals the strength and direction of relationships between key variables. Organizational Atmosphere and Psychological

Capital show a strong positive correlation (0.67), indicating that supportive management practices are associated with higher psychological capital among employees. Work Engagement also positively correlates with both Organizational Atmosphere (0.59) and Psychological Capital (0.72), suggesting that a positive environment and psychological resources enhance employee engagement. The highest correlation (0.72) is between Work Engagement and Work Performance, highlighting that engaged employees tend to perform better. These correlations underscore the interconnectedness of organizational climate, psychological resources, and employee outcomes, validating the study's hypothesized relationships.

Table 1. Correlation matrix.

Variables	Organizational Atmosphere	Psychological Capital	Work Engagement	Work Performance
Organizational Atmosphere	1.00	0.67	0.59	
Psychological Capital	0.67	1.00	0.72	
Work Engagement	0.59	0.72	1.00	0.72
Work Performance			0.72	1.00

In **Table 2**, The means and standard deviations provide insights into the central tendency and variability of the key constructs. Organizational Atmosphere has a mean score of 3.8 (SD = 0.5), indicating that respondents generally perceive a supportive organizational environment. Psychological Capital has a slightly higher mean (M = 4.1, SD = 0.6), suggesting that employees generally feel confident and resilient. Work Engagement has the highest mean (M = 4.2, SD = 0.7), reflecting strong overall engagement among employees. Work Performance has a mean of 3.9 (SD = 0.6), indicating satisfactory performance levels. The relatively low standard deviations across variables suggest consistent perceptions among respondents, reinforcing the reliability of the measures used.

Table 2. Means and standard deviations.

Variables	Mean (M)	Standard Deviation (SD)
Organizational Atmosphere	3.8	0.5
Psychological Capital	4.1	0.6
Work Engagement	4.2	0.7
Work Performance	3.9	0.6

The demographic characteristics of the sample (N = 369) presented in **Table 3** offer a comprehensive overview of the participants in the study. The gender distribution is relatively balanced, with males representing 50.95% and females 49.05% of the sample. This near parity in gender provides a broad perspective on the impact of organizational atmosphere and psychological capital across different gender experiences in the workplace.

Table 3. Demographic characteristics of the sample ($N = 369$).

Variable	Index	Sample Size ($N = 369$)	Proportion (%)
Gender	Male	188	50.95
	Female	181	49.05
Age	< 20	29	7.86
	21–30	174	47.15
	31–40	135	36.59
	≥ 40	31	8.4
Education Background	College degree and below	105	28.46
	Bachelor degree	180	48.78
	Master degree and above	84	22.76
Duration of Working Time (years)	1–3	75	20.33
	4–6	104	28.18
	710	76	20.60
	≥ 10	114	30.89

Age distribution highlights a youthful workforce, with the majority (47.15%) of participants aged between 21–30 years. This suggests that the sample is relatively early in their career path, which may influence their perceptions of organizational atmosphere and engagement. The next largest age group, 31–40 years, constitutes 36.59% of the sample, indicating a significant representation of mid-career professionals. Those above 40 years account for only 8.4%, indicating a smaller proportion of more experienced faculty members.

The educational background reveals a highly educated sample, with 48.78% holding a bachelor's degree and 22.76% with a master's degree or higher. This level of education is expected in a university faculty setting and is important for understanding the levels of psychological capital which often correlate with educational attainment.

Duration of working time showcases varied experience levels, with only 20.33% of participants being relatively new to their roles (1–3 years). The largest proportion of the sample (30.89%) has significant experience, having worked 10 years or more. This variation allows for an analysis of work engagement and performance across different career stages.

The spread across these demographic factors provides a rich dataset to explore how variables such as organizational atmosphere and psychological capital interact with work engagement and performance. It also sets the stage for a nuanced understanding of how these relationships may vary across different age groups, gender, levels of education, and years of work experience.

The implications of such a diverse sample are substantial for practice. For instance, the near-equal gender distribution could offer insights into gender-specific initiatives to enhance engagement and performance. The youthful skew of the sample could imply a need for developmental opportunities and career growth pathways to maintain engagement. Additionally, the high educational attainment among the sample points to a workforce that values continual learning and growth,

which could influence their psychological contract expectations and their engagement with work.

Furthermore, the varied durations of working time reflect different career stages and potentially different engagement dynamics. For example, those with longer tenure may have more established perceptions of their psychological contract and may require different strategies to enhance engagement compared to newer faculty members.

The structural equation modeling (SEM) presented in **Table 4** indicates a robust relationship between organizational atmosphere and work engagement ($\beta = 0.67$, $p < 0.001$), suggesting that a conducive organizational climate is highly predictive of employee engagement. The similar magnitude and significance of the path coefficient for psychological capital ($\beta = 0.59$, $p < 0.001$) to work engagement further underlines the importance of employees' psychological resources in their level of engagement. Moreover, the strong and direct path from work engagement to work performance ($\beta = 0.72$, $p < 0.001$) provides compelling evidence that the more engaged employees are in their work, the higher their performance. This finding emphasizes the centrality of engagement in organizational productivity initiatives. The moderating role of the psychological contract, as shown by the beta coefficient ($\beta = 0.21$, $p < 0.01$) in **Table 4**, implies that the impact of work engagement on performance is contingent on the fulfillment of the psychological contract. When organizations meet or exceed employee expectations, the positive effect of engagement on performance is magnified.

Table 4. SEM coefficients and significance levels.

Path	Beta (β)	Standard Error (SE)	*p*-value
Organizational Atmosphere > Work Engagement	0.67	0.05	< 0.001
Psychological Capital > Work Engagement	0.59	0.06	< 0.001
Work Engagement > Work Performance	0.72	0.04	< 0.001
Psychological Contract Moderation	0.21	0.07	< 0.01

In **Table 5**, the significant indirect effects ($p < 0.001$) reveal that work engagement is a critical mediator in the pathway from both organizational atmosphere and psychological capital to work performance. This mediating effect suggests that interventions to improve the organizational atmosphere and psychological capital will likely increase work performance by first enhancing work engagement.

Table 5. Indirect effects analysis.

Mediating Variable	Effect	Boot SE	95% CI Lower	95% CI Upper	*p*-value
Work Engagement	0.48	0.06	0.37	0.59	< 0.001
Work Engagement	0.42	0.05	0.33	0.51	< 0.001

The model fit indices presented in **Table 6** (Chi-square = 182.36, $p < 0.05$; CFI = 0.95; TLI = 0.93; RMSEA = 0.06) all fall within acceptable ranges, indicating a good fit of the model to the data. These fit indices suggest that the hypothesized

model accurately represents the relationships among the variables. The low *p*-value for the chi-square test indicates that the model significantly differs from the observed data, which is expected in large samples. The comparative fit index (CFI) and Tucker-Lewis index (TLI) values above 0.90 indicate a satisfactory fit of the model, while the root mean square error of approximation (RMSEA) value below 0.08 suggests a close fit of the model to the data. Overall, these indices validate the structural model and support its suitability for explaining the relationships among organizational atmosphere, psychological capital, work engagement, and work performance.

Table 6. Model fit indices.

Fit Index	Value	Acceptance Criteria
Chi-square	182.36	$p < 0.05$
CFI	0.95	> 0.90
TLI	0.93	> 0.90
RMSEA	0.06	< 0.08

5. Conclusion

The study set out to investigate the interplay between organizational atmosphere, psychological capital, work engagement, psychological contract, and work performance within the context of colleges and university faculties. The primary findings indicate a strong positive relationship between organizational atmosphere and work engagement, as well as between psychological capital and work engagement, supporting hypotheses H1 and H2 respectively. These relationships underscore the importance of an enriching work environment and robust mental resources in fostering a deeply engaged workforce.

Furthermore, work engagement emerged as a significant predictor of work performance, validating hypothesis H3 and asserting the transformative role of engagement in driving employee output. The mediation analyses corroborated hypotheses H4 and H5, revealing that work engagement is a crucial intermediary that translates the benefits of a positive organizational atmosphere and ample psychological capital into enhanced work performance. Additionally, the study confirmed hypothesis H6, showcasing the psychological contract's moderating role between work engagement and performance. This highlights that the fulfillment of mutual expectations between employer and employees can amplify or diminish the engagement-performance link.

While the study provides robust insights, it is not without limitations. The cross-sectional design limits the ability to draw causal inferences, and the reliance on self-reported data raises the potential for response biases. The sample, restricted to faculty members in colleges and universities, may also limit the generalizability of the findings to other sectors or educational institutions. Future research could employ longitudinal designs to better understand the causality and evolution of the studied relationships over time. There is also scope for expanding the study to include public universities and other educational settings to enhance generalizability (Gong, et al., 2021; Wang et al., 2023). Further, incorporating objective performance measures,

such as student evaluations or publication records, could provide a more nuanced understanding of work performance. Research could also explore cultural variations in the psychological contract and their influence on the engagement-performance relationship, potentially offering cross-cultural comparisons and insights. Lastly, intervention studies that aim to enhance psychological capital and examine the resultant changes in work engagement and performance would offer practical evidence for organizational initiatives.

Despite the comprehensive nature of this study, several limitations must be acknowledged. The cross-sectional design inhibits the establishment of causality among the variables studied. Longitudinal research could further elucidate the dynamics over time (Yan et al., 2022). The sample is confined to colleges and university faculty, which may limit the generalizability of findings across different types of institutions or industries. Self-report measures, while practical, may also introduce bias and do not capture objective performance metrics.

Future research should aim to implement longitudinal designs to observe the progression and causal relationships over time. Expanding the sample to include a more diverse range of educational institutions and potentially other sectors could provide a broader understanding of the studied phenomena. Incorporating objective performance data and multi-source feedback could enhance the validity of the performance assessments. Furthermore, exploring cultural differences in psychological contract perceptions could reveal significant insights into international or cross-cultural educational contexts. Lastly, intervention studies that aim to enhance psychological capital and measure the resultant changes in engagement and performance would provide practical evidence for organizational development initiatives.

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