

How Workplace Friendship Promotes Employee Proactive Behavior: The Mediating Role of Positive Effects

Jianru Chen

chenjrhere@163.com

Shanghai University, #20 Chengzhong Road, Jiading District, Shanghai

Abstract. Based on the Cognitive-Emotional System Theory, this study explores the relationships among workplace friendship, positive effects, learning goal orientation, and employee proactive work behavior, while examining the moderating role of learning goal orientation in these relationships. Through a cross-sectional design and employing SPSS analysis software for data analysis, the research findings reveal that workplace friendship positively influences employee proactive work behavior, with positive effects serving as an intermediary mechanism. Further moderation analysis uncovers the moderating effect of learning goal orientation on the relationship between positive effects and employee proactive work behavior, indicating that a stronger learning goal orientation enhances the significance of the relationship between positive effects and employee proactive work behavior. This study provides a new theoretical perspective for a deeper understanding of the intricate connections among workplace friendship, positive effects, learning goal orientation, and employee proactive work behavior. The results not only enrich the theoretical framework concerning workplace friendship and employee behavior but also offer targeted practical recommendations for organizational managers.

Keywords. workplace friendship, employee proactive work behavior, positive effect, learning goal orientation, cognitive-affective system theory

1 Introduction

In the current fiercely competitive workplace context, the cognitive and emotional states of individuals play a crucial role in shaping work experiences and behaviors. The Cognitive-Emotional Systems Theory provides a profound framework for analyzing the psychological processes of individuals in the occupational environment^[1]. This study aims to delve into the relationships among workplace friendship, positive effects, employee proactive behavior, and learning goal orientation based on the Cognitive-Emotional Systems Theory.

The objective is to uncover how cognitive and emotional processes interact to influence the mechanisms of work behavior. Workplace friendship, as an expression of social cognitive processes, involves the relationship networks individuals establish in the work environment^[2]. The presence of friendship may influence cognitive systems through channels of emotional

support and understanding, directly shaping individuals' emotional experiences. This study will focus on the direct and indirect impacts of friendship on positive effects and employee proactive behavior, with an additional exploration of the moderating role of learning goal orientation in these relationships^[3].

Positive effects, as a vital component of the cognitive-emotional system, are considered to play a crucial role in the workplace^[4]. Positive effects established through friendship may directly stimulate individuals to engage in more positive and proactive work behaviors. Simultaneously, these positive effects may also act as an intermediary variable between friendship and proactive behavior, serving as a bridge.

Furthermore, the introduction of learning goal orientation as a moderating variable aims to emphasize how individuals' orientation toward learning goals moderates the relationships among friendship, emotions, and proactive work behavior^[5]. This study explores how individuals with high learning goal orientation derive learning opportunities from friendship and how this further influences their emotional states and proactive work behavior.

By thoroughly investigating the complex relationships among these factors, this research intends to provide new theoretical insights and empirical evidence in the field of organizational psychology. This will assist organizational managers in better understanding and promoting a positive work environment and employee behavior. This study holds significance in revealing how cognitive and emotional systems collaboratively shape workplace behavior and offers valuable insights for future organizational management practices.

2 Theoretical background and hypotheses

2.1 Workplace friendship and employee proactive behavior

Watson et al.^[8] posit that workplace friendship transcends mere informal interactions, embodying interpersonal relationships consciously created, developed, and maintained by employees. It entails varying degrees of voluntary interdependence and mutual attention. Scholars consistently affirm the positive impact of workplace friendship, with profound implications at the individual level, influencing personal emotions, attitudes, and behavioral outcomes. Colleague relationships, highlighted by Su et al.^[2], reduce work stress through mutual support and information sharing, offering instrumental and emotional assistance and enhancing work performance. Workplace friendship emerges as a critical factor in improving employee work attitudes, including job satisfaction and organizational commitment, while mitigating turnover intentions.

Employee Proactive Work Behavior (PWB) involves employees proactively optimizing working conditions, broadening roles, and emphasizing self-awareness, foresight, transformative, and creative qualities. Organizations in dynamic environments must stimulate PWB to gain a competitive advantage. According to the Cognitive-Emotional Systems Theory, workplace friendship, as a contextual factor, influences employees' cognitive-emotional units, subsequently impacting their behavior. Firstly, workplace friendship enhances employees' capabilities and autonomy, fostering proactive work behavior. Capability reflects belief in task performance, while autonomy entails control over work experiences, contributing to self-

efficacy. Secondly, positive experiences in workplace friendship enhance organizational recognition, reinforcing employees' commitment and proactive contributions, creating a bidirectional drive that fortifies proactive work behavior. This leads to the hypothesis:

Hypothesis 1 (H1). Workplace friendship positively influences employee proactive work behavior.

2.2 Positive effect as a mediator

Derived from the concept of workplace friendship itself, workplace friendship refers to an essential informal relationship in the workplace that provides employees with both instrumental and emotional support, cultivates positive self-awareness, and assists employees in thriving and growing. In the workplace, when employees are continuously surrounded by work affairs, they are prone to negative emotions such as frustration and feelings of failure. Workplace friendship, during work intervals, offers emotional value and assistance, not only reducing negative emotions such as frustration resulting from work difficulties in practical work but also providing positive effects informally, enhancing employees' positive effects. Based on this concept, the following hypothesis is proposed:

From the Cognitive-Emotional Systems Theory perspective, events encountered by individuals interact with a complex cognitive-emotional system. When individuals face tasks they need to accomplish, having a heightened positive mood at that moment leads individuals to be more inclined to adopt proactive work behavior to complete their tasks. The following hypothesis proposed is as follows.

Hypothesis 2 (H2). Positive effect mediates the relationship between workplace friendship and employee proactive work behavior.

2.3 Learning goal orientation as a moderator

Workplace friendship, as a situational resource, is influenced in its utility by the individual preferences and needs of employees. According to achievement motivation theory, goal orientation plays a crucial role in motivational processes, affecting how individuals understand and respond to achieving goals. Learning goal orientation, as a significant achievement goal orientation, reflects the characteristics of an individual's intrinsic motivation. It is manifested through acquiring new skills, mastering new environments, and enhancing self-knowledge and abilities to facilitate personal growth and development. The degree of an individual's learning goal orientation reflects differences in their intrinsic motivation, and the interaction of these intrinsic motivations with other factors profoundly influences an individual's work attitudes and behaviors.

Firstly, individuals with a high learning goal orientation exhibit high motivation, interest, and enthusiasm for work tasks. They are inclined to focus on and learn new knowledge and skills actively, aiming to enhance their own competency. In the context of workplace friendship, employees with a high learning goal orientation make effective use of the positive work environment and abundant work resources provided by friendship. They engage in proactive learning, aiming to improve their skills and performance. Numerous empirical studies support the positive facilitating role of a learning goal orientation in employee creativity. In the process of resource interaction, individuals with a high learning goal orientation can better

utilize resources in the workplace friendship context, generate positive effects, and take spontaneous actions to reshape work situations, expand their roles, or self-improve.

Secondly, individuals with a high learning goal orientation are more willing to accept challenging and difficult tasks. They exhibit a positive attitude towards problems, difficulties, and failures, taking proactive actions and investing more effort. They view challenges as opportunities for learning and progress. Their preference for challenging and complex tasks is rooted in intrinsic motivation based on personal interest, leading to a higher level of focus and commitment to tasks. In the interaction process of workplace friendship, individuals with a high learning goal orientation can mobilize positive effects, engage in proactive work behaviors, and transform emotional value into a driving force for problem-solving, demonstrating higher work proactivity. Based on these ideas, the following hypothesis is proposed, and overall model is shown in Figure 1.

Hypothesis 3 (H3). Learning goal orientation moderates the relationship between positive effect and employee proactive work behavior.

Hypothesis 4 (H4). A member's learning goal orientation positively moderates the mediating role of positive effect between workplace friendship and employee proactive behavior.

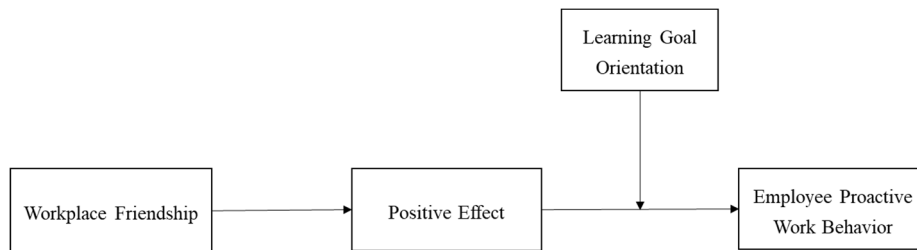


Figure 1. Research Model.

3 Methods

3.1 Samples and procedure

This study primarily adopted a longitudinal approach for questionnaire collection. The first survey was conducted to collect data on workplace friendship and learning goal orientation, along with recording participants' basic information and contact details. The second survey, conducted through follow-up retrieval, gathered data on positive affect and employee proactive work behavior. The two survey time points were separated by a one-month interval, spanning from February to April 2023. The sample was mainly drawn from six enterprises located in Shanghai and Zhejiang Province, encompassing both managerial and technical staff. All survey participants volunteered to take part, and the questionnaires were distributed and collected online. After excluding invalid questionnaires with excessive missing responses, very short completion times, or obvious inaccuracies, a total of 296 valid questionnaires were collected, resulting in an effective response rate of 69.40%. Sample characteristics revealed a gender distribution of 54.8% male and 45.2% female. The majority of participants were

between 35 and 40 years old, with a work experience concentrated in the range of 3-5 years. Regarding educational background, the majority held a bachelor's degree.

3.2 Questionnaire formulation

The questionnaire in this study employed a Likert 5-point scale, 1 indicating strongly disagree, 5 indicating strongly agree, with increasing values from low to high), and all items were based on mature scales available both domestically and internationally, having undergone a rigorous translation and back-translation process.

The Workplace Friendship scale, consisting of 9 items, was developed by Nielsen et al.^[6] and revised by Sun et al.^[7]. It comprises two dimensions: friendship opportunities and friendship intensity. Sample items include "I have the opportunity to get to know my colleagues" and "I can trust others in my work." The Cronbach's α coefficient for this scale was 0.89.

The Positive Affect scale, consisting of 5 items, was developed by Watson et al.^[8] and revised by Tang et al.^[9]. Sample items include "Happy" and "Full of enthusiasm." The Cronbach's α coefficient for this scale was 0.87.

The Learning Goal Orientation scale, comprising 5 items, was developed by Vandewalle^[10]. Sample items include "I often look for opportunities to develop new skills and knowledge" and "I enjoy challenging and difficult tasks at work where I'll learn new skills." The Cronbach's α coefficient for this scale was 0.89.

The Employee Proactive Work Behavior scale, consisting of 7 items, was developed by Frese et al.^[11]. Sample items include "I actively attack problems" and "Usually I do more than I am asked to do." The Cronbach's α coefficient for this scale was 0.83.

4 Results

4.1 Confirmatory factor analysis

This study employed AMOS 24.0 for confirmatory factor analysis to examine the validity of the scales, and the analysis results are presented in Table 1. The examination results reveal that the four-factor model demonstrates the highest goodness of fit and meets the recommended standards, indicating good discriminant validity for the measurement model in this study.

Table 1. Comparison of measurement models.

Model	χ^2	df	χ^2/df	RMSEA	GFI	CFI	TLI
WF, PE, LGO, WPB	649.781	489	1.329	0.031	0.902	0.954	0.950
WF, PE + LGO, EPB	839.224	492	1.706	0.045	0.861	0.900	0.893
WF+LGO+ PE, EPB	1372.312	494	2.778	0.071	0.736	0.747	0.730
WF+PE+LGO+EPB	1570.428	495	3.173	0.079	0.713	0.691	0.670

Notes: N=351.WF, workplace friendship; PE, positive effect; LGO, learning goal orientation; EPB, employee proactive behavior.

4.2 Common method variance

Given that the questionnaires used in this study are all based on employees' self-assessments, there may be a common method bias that needs to be examined to eliminate potential impacts on the research results. Firstly, this study employed Harman's single-factor test, conducting an exploratory factor analysis on all items of the variable scales. The analysis results showed that the first factor explained covariance at 30.45%, which is below the 50% threshold, providing preliminary evidence that there is no common method variance (CMV) issue. Furthermore, using the latent method factor control approach for testing, the results indicated that adding a method bias latent variable in the five-factor model, compared to the four-factor model, did not significantly improve the model fit. Therefore, it was concluded that this study does not suffer from a severe common method bias problem.

4.3 Descriptive statistics analysis

This study conducted descriptive statistical analysis and correlation analysis using SPSS 26.0 software. The specific analysis results of variable means, standard deviations, and the correlation matrix are presented in the table below. As indicated in the analysis results, workplace friendship is significantly positively correlated with positive effects ($r=0.328$, $p<0.001$) and significantly positively correlated with employee proactive behavior ($r=0.218$, $p<0.001$). Positive effects are significantly positively correlated with employee proactive behavior ($r=0.434$, $p<0.001$). The relationships between variables shown in the analysis results are consistent with the research expectations, providing initial support for Hypothesis 1 and Hypothesis 2 in this study.

4.4 Hypotheses testing

This study employed SPSS 26.0 software and the PROCESS plugin to test hypotheses. Before testing the hypotheses, multicollinearity checks were conducted for all variables, and the results showed that the Variance Inflation Factor (VIF) values for each variable were all below 10, indicating the absence of severe multicollinearity issues.

Testing the Main Effect Hypothesis: Controlling for all control variables, workplace friendship has a significant positive impact on employee proactive behavior ($\beta=0.492$, $p<0.001$). This suggests that higher levels of workplace friendship are associated with a greater likelihood of engaging in proactive work behavior, providing support for Hypothesis 1.

Testing the Mediation Effect Hypothesis: The PROCESS plugin was used to test the mediation effect, and the Monte Carlo method was employed to calculate the 95% confidence interval for the indirect effect, with 5000 repetitions. The results revealed that the indirect effect of workplace friendship on employee proactive behavior through positive effects was 0.133, with a standard error of 0.032, and a 95% confidence interval of 0.075 to 0.198. Since the interval does not include 0, the indirect effect is significant, confirming Hypothesis 2.

Testing the Moderation Effect Hypothesis: The PROCESS plugin's MODEL1 was used to test the moderation effect. The interaction term between positive effects and learning goal

orientation has a significant positive impact on employee proactive behavior ($\beta=0.317$, $p<0.001$). Preliminary support for Hypothesis 3 is obtained. Figure 2 shows that the simple slope test results indicate that when learning goal orientation is low, positive effects have a negative impact on employee proactive behavior ($\beta = -0.154$, $p = 0.02$). When learning goal orientation is high, positive effects have a significant positive impact on employee proactive behavior ($\beta = 0.476$, $p < 0.001$), providing further support for Hypothesis 3.

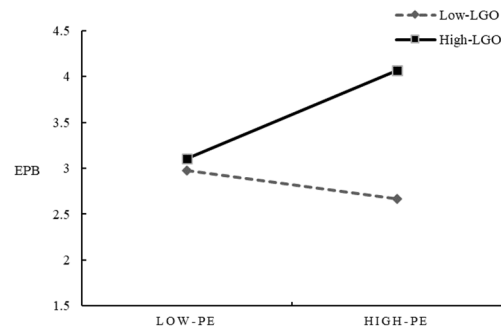


Figure 2. The moderating effect of learning goal orientation on the relationship between positive effect and employee proactive behavior.

Testing the Moderated Mediation Hypothesis: The PROCESS plugin's MODEL14 was employed to examine this hypothesis. In the influence of workplace friendship on employee proactive behavior through positive effects, the indirect effect is significant when learning goal orientation is high ($\beta= 0.154$, $SE=0.038$), with a 95% confidence interval of [0.082, 0.231]. However, it is not significant when learning goal orientation is low, with a 95% confidence interval of [-0.11, 0.006]. The difference is significant, confirming Hypothesis 4.

5 Conclusion and discussion

This research, grounded in the Cognitive-Emotional Systems Theory and Achievement Motivation Theory, examines the influence of workplace friendship on employee proactive behavior, emphasizing positive effects and learning goal orientation. The findings reveal a negative impact of workplace friendship on positive effects and proactive behavior, with positive effects mediating the relationship. Moreover, a positive moderation effect of learning goal orientation is identified, particularly strengthening the connection between workplace friendship and proactive behavior in high learning goal orientation contexts.

The study holds significant theoretical implications. Firstly, it introduces workplace friendship as a situational resource, exploring its interaction with individual learning goal orientation to influence proactive behavior. This framework advances our understanding of workplace friendship's mechanisms, contributing novel perspectives to occupational psychology and human resource management. Secondly, by investigating the moderating role of learning goal orientation, the research underscores the importance of intrinsic motivation in work-related psychological processes, providing profound insights for scholars into motivation, task cognition, and emotional responses at work.

Furthermore, the study contributes to understanding employee behavior patterns, enabling organizational managers to optimize work environments and formulate effective human resource strategies. The established framework guides practical efforts to enhance positive effects and promote proactive behavior.

Despite its contributions, the study has limitations. It exclusively relies on certain theories, warranting future research to incorporate additional psychological and management theories for a more comprehensive understanding. The cross-sectional design limits capturing dynamic changes, suggesting future studies employ longitudinal designs. Additionally, the study focuses on individual-level factors, recommending future research explore team and organizational influences for a more macro-level understanding.

In conclusion, while acknowledging limitations, this study lays a theoretical foundation for understanding workplace friendship's impact on proactive behavior. It provides valuable insights for future research, encouraging refinement and expansion of the framework for a comprehensive exploration of psychological processes in the workplace.

References

- [1] H. Tsai.: Do you feel like being proactive day? How Daily Cyberloafing Influences Creativity and Proactive Behavior: The Moderating Roles of Work Environment. *Computers in Human Behavior*. (2023)
- [2] X. Su, L. Wang, and L. Zhang.: Workplace relationships and employees' proactive behavior: Organization-based self-esteem as a mediator. *Social Behavior and Personality*. (2022)
- [3] Q. Song, P. Guo, R. Fu, F. Cooke, and Y. Chen.: Does human resource system strength help employees act proactively? The roles of crisis strength and work engagement. *Human Resource Management*, pp. 213–228 (2023)
- [4] L. Schelp, T. Bipp, S. Gado, and M. Daumiller.: Fostering Learning Goals at Work: The Interplay of Dispositional and Workplace Learning Goal Orientation and Supervisor Appraisal Behavior. *Psychological reports*. (2023)
- [5] Q. Qiang, W. Xiaohong, and S. Qianru.: Does paradoxical leadership influence employees' proactive work behavior? A study based on employees in Chinese state-owned enterprises. *Frontiers in Psychology*. (2023)
- [6] I. Nielsen, S. Jex, and G. Adams.: Development and validation of scores on a two-dimensional workplace friendship scale. *Educational and Psychological Measurement*. pp. 628–643, Aug. 2000.
- [7] J.-M. SUN and H.-T. JIAO.: Workplace Friendship in Chinese Context. *Economic Management*. pp. 62–70 (2012)
- [8] D. Watson, L. A. Clark, and A. Tellegen.: Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of personality and social psychology*. pp. 1063–70. (1988)
- [9] C. Tang, S. Ai, and Z. Gong.: The Social Function of the Positive Mood and its Influence on Team Creativity: the Mediating Effect of Tacit Knowledge Sharing. *Nankai Business Review*. pp. 129–137 (2011)
- [10] D. VandeWalle.: Development and validation of a work domain goal orientation instrument. *Educational and Psychological Measurement*. pp. 995–1015 (1997)

[11] P. Chang, G. Ma, and Y. Lin.: Inclusive Leadership and Employee Proactive Behavior: A Cross-Level Moderated Mediation Model. *Psychology Research and Behavior Management*. pp. 1797–1808 (2022).