



Research on the Influence of Employee's Team-Member Exchange on Leadership Emergence Based on Empirical Analysis

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Abstract. Traditional researches on leadership often believe that a leader can only be appointed by a single, formally appointed individual. However, with the deepening of organizational structure transformation, enterprises begin to rely more on informal leadership provided by team members, thus attracting attention to the emergence of leadership. Therefore, it is very important to study how to promote Leadership Emergence. The purpose of this study is to explore the influence mechanism of employee's Team-member Exchange on Leadership Emergence. A total of 320 employees from 32 enterprises were selected for empirical test. The results show that employee's Team-member Exchange has a significant positive impact on Leadership Emergence. This study theoretically analyzes the influence mechanism of employee's Team-member Exchange on Leadership Emergence, provides a framework for subsequent theoretical research, and effectively guides enterprises to improve employee leadership training practices.

Keywords: Team-member Exchange · Leadership Emergence · Empirical research

1 Introduction

In recent years, with mass entrepreneurship and innovation as the theme of the times, enterprises tend to adopt flat management structures in the face of dynamic and complex external environment, and increasingly use project teams as the preferred tool for enterprise production. Therefore, enterprises need to change the way of management and give more power to employees to release their potential. This also brings a new direction for scholars to study leadership, because the emergence of leadership from project members has an essential impact on the work of project teams. Many studies on shared or distributed leadership have shown that informal leadership provided by multiple team members contributes significantly to team efficiency, and many researchers believe that the presence of team members as informal leaders is critical to team performance. Leadership Emergence is an important research topic because it has a critical impact on team processes and performance. Researches on Leadership Emergence methods mainly focus on the individual level, and a lot of exploration has been made on personality, values, and

skills [1]. However, these methods only focus on an individual's intrinsic characteristics and do not consider the individual's potential interactions with team and organization members. Scholars conceptualize leadership as a dynamic social process, in which the interaction between team members can influence who becomes a leader [2].

Team leaders play a core role in a team and determine the allocation of value resources. It is self-evident that the vertical exchange of leading members is of great importance to employees. However, with the wide application of team work in an organization, its importance is relatively weakened, while the importance of horizontal exchange of team members is increasingly prominent [3]. Therefore, studying the influence of horizontal relationship team-member exchange on employee leadership emergence can fill the gap of previous studies and provide guidance for enterprises to improve the training practice of employee leadership.

2 Research Hypothesis

Some scholars suggest that context may be the main source of leadership construction [4]. In the existing studies, only Zhang [5] discussed the positive effect of formal leader-member exchange on the emergence of individual informal leadership. There is a lack of research on the influence of situational factors on the emergence of individual leadership. In addition to formal leader-member exchanges, there are team-member exchanges within teams. The quality of one's social interactions may be related to leadership. Leadership and social influence require demonstrating the ability to build relationships and gain status [6]. Leadership emergence is a process that leads to peer recognition of leadership by team members [7]. Since the emergence of leadership requires the peer recognition of team members for their leadership status, this process is also inseparable from the influence of team-member exchange.

When the employee is in a good social exchange relationship with other members of the project team, the frequent interaction and harmonious interpersonal relationship of the team members promote the social recognition and trust of the employee by other members. When he finds problems with the team's work, he can offer suggestions and suggestions without personal concerns in the silence of others. Individuals in the group may be inclined to choose them as social role models to observe and learn from [8]. Being seen as competent by other team members can help individuals play the role of archetypal leader and become the leader in the team, thus shaping the leadership structure in the social network [9]. Therefore, in social networks, employees who have good team-member exchange relationships with the rest of the work team are more likely to be regarded as "leader" archetypes.

In a review of emerging leadership research, two sets of behaviors are required to achieve informal team leadership [10]. First, the individual must alleviate the team's task concerns by being perceived as competent at the team's central task and coordinating the achievement of the team's task objectives. Second, the leader must be seen as able to alleviate the social concerns of the team by building trust. Team-member exchange can satisfy both sets of behaviors for obtaining informal team leadership.

Employees with high team-member exchange are willing to help other team members to complete the "task leader" behavior, and maintain harmonious interpersonal relationship with others to complete the "emotional leader" behavior. Therefore, employees

with high team member turnover fit the “leader” stereotype and are more likely to be perceived as leaders by others.

Based on the above analysis, we can draw the hypothesis:

H1: Employee's team-member exchange has a significant positive impact on employee's leadership emergence.

3 Research Design

3.1 Research Object

This study selected 320 employees from 32 enterprises engaged in machinery, new energy, electric power and other industries in Nanjing, Hangzhou, Xuzhou, and other cities.

Data were collected through questionnaires and interviews. All scales were taken from foreign maturity scales. The questionnaire consists of three parts: the overall network variable of the department (team-member exchange variable), the variable of leadership emergence and demographic characteristics variable (gender, age, education background, working years).

A total of 470 questionnaires were distributed in this study, and 415 valid questionnaires were collected, including 95 leaders and 320 employees. The effective rate is 88.29%. The proportion of male and female employees in the survey sample is 53.1% and 46.9% respectively. In terms of education level, the proportion of high school or below is 6.5%, that of junior college is 21.3%, that of bachelor degree is 59.7%, and that of master degree or above is 12.5%.

3.2 Research Tool

Team-member Exchange. The seven-item team-member exchange network scale developed by Paglis and Green [11] was used and filled in by employees in the team.

Leadership Emergence. Adopt the electoral method commonly adopted by scholars [12]. This approach typically asks employees to rate whether anyone has emerged as a leader on the team and, if so, list specific names. Then, the ratio of the number of times each employee was selected to the size of the team was calculated to reflect the degree of leadership emergence of the individual in the team. The higher the ratio, the higher the team members' approval of the individual's leadership. In this paper, a list of team members was presented to employees, who were asked to rate “although he/she is not my leader, I feel that he/she plays a leading role in my work”.

Control variables. In order to prevent other variables from influencing the results of the study, this study controls the employee's gender, age, education level and working years.

4 Empirical Results and Analysis

4.1 Descriptive Statistics

The mean values, standard deviations and correlation coefficients of variables involved in the study are shown in Table 1. It can be seen from the data in the table that there

Table 1. Descriptive statistics

Variable	Average Value	SD	1	2
1. Team-member Exchange	0.57	0.33	1	0.61**
2. Leadership Emergence	0.3	0.26	0.61**	1

*. At the 0.05 level (two tailed), the correlation was significant. **. At the 0.01 level (two tailed), the correlation was significant.

Table 2. Direct effect regression analysis

Variable		Leadership Emergence	
		M1	M2
Control Variable	Sex	0.032	0.008
	Age	0.027	0.009
	Education	-0.012	0.008
	Working Years	0.021	0.027
Independent Variable	Team-member Exchange		0.475**
Regression Results	Value of F	3.492	40.285
	R ²	0.206	0.625
	Adjusted R ²	0.03	0.381
	Mean Value of VIF	< 10	< 10

*. At the 0.05 level (two tailed), the correlation was significant. **. At the 0.01 level (two tailed), the correlation was significant.

is a significant positive correlation between Team-member Exchange and Leadership Emergence ($r = 0.61$, $P < 0.01$), which preliminarily supports the hypothesis.

4.2 Hypothesis Test

After controlling for gender, age, education and working years, direct effect analysis was performed on data from formal surveys. According to the analysis results in Table 2, the data in the table shows that Team-member Exchange has a significant positive impact on Leadership Emergence ($\beta = 0.475$, $P < 0.01$), which supports the hypothesis H1.

5 Conclusions

5.1 Research Conclusion

Taking 320 employees as research objects, this study explores the influence mechanism of Team-member Exchange on Leadership Emergence. The results show that Team-member Exchange has a positive impact on Leadership Emergence.

5.2 Theoretical Significance

As the organizational structure becomes flatter, the emergence of employee leadership has become a hot issue in academic and practice at home and abroad in recent years. Previous studies on the antecedents of leadership emergence mainly focused on the individual level, and explored the influence of personality, values, and skills on employee leadership emergence. From the perspective of context, this study explores the influence of Team-member Exchange obtained by employees in the team on the Leadership Emergence, which enriches the understanding of the premise and mechanism of the Leadership Emergence.

5.3 Management Enlightenment

In order to improve the leadership of employees in management practice, managers must understand the significance of the quality of horizontal relationships among employees. This study found that Team-member Exchange can promote employee Leadership Emergence. Therefore, managers should implement intervention plans, such as holding social gatherings to promote horizontal social communication among team members, promoting friendship, positive influence, and socialization among team members, enhancing Team-member Exchange relations among employees to promote the Leadership Emergence, and ultimately improve the performance of the entire organization.

5.4 Limitations and Prospects

Although this study has some theoretical contributions and practical significance, it also has some limitations. Firstly, from the perspective of the sample, due to the limitation of manpower, this study adopts the convenient sampling method, and the samples are mainly concentrated in the same province. In order to increase the universality of the research conclusions, future studies can be carried out in multiple provinces and regions to improve the external effectiveness of the research. Second, from the perspective of methods, all sample data in this study are cross-sectional data. In order to make the results more rigorous and effective, time-sharing data collection method or experimental method can be considered for future research to provide more sufficient causal evidence support. Third, this paper only explores the role of team member exchange. Future studies can further analyze the role of network structure, such as the different effects of "strong relationship" and "weak relationship" of team members on the Leadership Emergence.

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