A Cross-level Influencing Mechanism on the Relationship Between Leader’s Noninterference Orientation and Employees’ Innovation Behavior

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Abstract. Based on Chinese traditional culture, this research explores the cross-level influencing mechanism on the relationship between leader’s noninterference orientation and employees’ innovation behavior, and based on the mediating effect of democratic leadership. Through the paired questionnaire survey of 99 leadership samples and 358 employee samples, the conclusion is drawn that the leader’s noninterference orientation approach has a significant positive impact on democratic leadership and employees’ innovation behavior; democratic leadership has an intermediary role between leader’s noninterference orientation and employees’ innovation behavior.

1. Introduction

Innovation is the fundamental driving force for the survival and development of an enterprise, and it’s the key to obtaining a long-term competitive advantage in an unpredictable business environment. As the most dynamic factor in corporate innovation activities, individual employee innovation has become a direct source of corporate innovation, so how to effectively stimulate employee innovation behavior has become a hot topic in the academic circles.

Scholars at home and abroad have conducted in-depth research on the definition of employee innovation behavior, pre-influencing factors, innovation performance, etc\textsuperscript{[1-3]}, but they all put employee innovation behavior in a context of cultural vacuum and explore the so-called universal innovation theory. As a result, these early results are difficult to learn and apply across countries and regions. With the upsurge of situational research, some domestic scholars have recently tried to base themselves on traditional Chinese culture and explore the influence mechanism of employees’ traditional cultural orientation on their innovative behavior\textsuperscript{[4-5]}. Although these recent studies have confirmed that relevant traditional cultural orientations (Guanxi, Renqing, Zhongyong, etc.) will have a significant impact on employee innovation\textsuperscript{[5-7]}, but there is still a certain theoretical gap. First, previous studies only focused on the effect of employees’ “self” cultural orientation on their innovative behavior, while ignoring the influence of others’ cultural orientation; Secondly, most of the cultural orientation variables that predecessors paid attention to belong to social norms or rules of interpersonal interaction (Guanxi, Renqing, Zhongyong, etc.), but few representative variables are selected from ancient management ideas and explored for their innovation behavior inner relationship.
Noninterference orientation is the way to govern the country proposed by Laozi, the founder of the Taoist school of our country. It has a great influence on the management thinking of future generations of China and is regarded by many leaders as the highest state of modern management. The management thinking of noninterference orientation has two main meanings: first, it requires leaders to respect the law, people-oriented, and scientific management in management practice; Second, it emphasizes that leaders should appropriately decentralize and authorize in their daily work. In view of the fact that noninterference orientation is the essence of ancient Chinese management thought and belongs to the thinking category of traditional Chinese culture, this study intends to select it as a representative cultural variable, and from the perspective of leadership cultural orientation, it explores the cross-level influence mechanism of leader’s noninterference orientation on employee innovation behavior.

Studies have shown that the cultural value orientation of leadership often coincides with its leadership style. The cultural orientation of the leader will be projected on its leadership style; and through the observation and perception of the leadership style, employees will then identify “whether the leaders themselves value and support innovation, whether they are willing to assume the responsibility and risk of innovation”, so that employees can adjust their own innovative behaviors. Relevant research has found that leadership inaction can have a profound effect on leadership style. Leaders with high noninterference orientation will adhere to the “people-oriented” management concept in management practices, listen to the suggestions of their employees with an open mind, and authorize employees when necessary, which makes its leadership style coincide with Lewin’s democratic leadership. In view of this, this study intends to select democratic leadership as an intermediary variable, and explore whether it will play an intermediary effect between noninterference orientation and employees’ innovation behavior.

In summary, this study is intended to be rooted in traditional Chinese culture and explores the cross-level influencing mechanism on the relationship between leader’s noninterference orientation and employees’ innovation behavior, and based on the mediating effect of democratic leadership, on this basis, discuss management strategies that drive employees’ innovative behavior.

2. Theoretical Review and Research Hypothesis

2.1. Variable Definition

2.1.1. Leader’s Noninterference Orientation

“Leader’s noninterference orientation” is the way to govern the country put forward by Laozi. The “inaction” emphasizes that leaders do not chaotically behave in management practices and respect the law. Wu Lijuan believes that noninterference orientation should be people-oriented, embodying the management concept of decentralization and authorization. Wang Ruping believes that the management idea of noninterference is that leaders should focus on exerting their own personality influence to stimulate the endogenous motivation of employees. This study intends to define leader’s noninterference orientation as “a kind of people-oriented leadership cultural values, emphasizing that leaders must respect objective laws, scientific management, appropriate decentralization, and reasonable authorization”.

2.1.2. Democratic Leadership

Lewin et al. defined democratic leadership as “the leadership appropriately authorizes employees
and actively encourages employees to participate in decision-making, solicits the opinions of employees, and mainly relies on their personal expertise and influence to influence a leadership style of employees "[14]. Zhang Jiayi believes that democratic leadership can coordinate and unify the policies and desires of the leaders in the organization and the desire and desire of employees. The specific manifestation is that the leadership has centralized power, the small power is dispersed [15]. Since Lewin is the proponent of democratic leadership, and its definition has been widely cited by scholars, this study intends to use their definition.

2.1.3. Employees’ Innovative Behavior

The definition of the connotation of employee innovation behavior can basically be divided into three categories. First, it emphasizes the creation of ideas, such as: Amabile believed that innovative behavior is novel solutions proposed by employees [16]; Second, it emphasizes creative execution, such as: West and Farr believe that innovative behavior is an activity where employees intentionally introduce and apply novel ideas, products or programs [17]; Third, it emphasizes the balance between the creation and execution of ideas, such as: Gu Yuandong and Peng Jisheng believe that employee innovation behavior refers to the behavior of employees in generating innovative ideas to problems and trying to put them into practice [18]. Since the definition of Gu Yuandong and Peng Jisheng takes into account the creation and execution of ideas, this study intends to use their definition.

2.2. Research Hypothesis

2.2.1. Leader’s Noninterference Orientation and Employees’ Innovative Behavior

According to Duolun’s theory of management values, the management values of leadership can influence the behavior of employees by leading a series of behaviors and attitudes. According to this reasoning, the leader’s noninterference orientation as a unique value of leadership management will also have an impact on employees’ innovative behavior. Specifically: First, the leader of high-noninterference orientation adheres to the people-oriented concept in management, cares for the work and life of employees, and strives to create a good working environment for employees; the care of leaders and comfortable working environment can mobilize employees to work subjective initiative, which in turn catalyzes employees to use their ingenuity and perform innovative behaviors [8]. Second, the leader of high-noninterference orientation emphasizes the need for appropriate decentralization and reasonable authorization in work [9]; the decentralization of the leadership can create a stage for employees to display their talents, inspire employees to take the initiative, and complete efficiently through innovative work. Accordingly, the following assumptions are made:

H1: The leader’s noninterference orientation has a positive impact on employees’ innovative behavior.

2.2.2. The Intermediary Effect of Democratic Leadership

Previous studies have confirmed that the cultural value orientation of leadership will significantly affect its leadership style [9,11]. According to this reasoning, the leader’s noninterference orientation will also shape its leadership style and manifest itself as a democratic leadership. Specifically: First, leader’s noninterference orientation emphasizes people-oriented and demonstrates the management value orientation of leadership subordinate authorization [8]; democratic leadership reflects the realistic leadership style of appropriate subordinate authorization of leadership [14]. Both have the meaning of leadership empowering employees, and the former’s management value orientation will
be directly projected on the latter’s realistic leadership style. Second, the relevant research also shows that the leader’s noninterference orientation will subtly affect its democratic leadership. For example: Wang Qingmin proposed the noninterference orientation to advocate respect for people and listen to the opinions of employees in the decision-making process. Then the leadership style of the leader is directly affected by his cultural orientation, and it appears as a democratic type\textsuperscript{[11]}. Accordingly, the following assumptions are made:

H2: The leader’s noninterference orientation has a positive impact on democratic leadership.

Studies have confirmed that leadership styles will have an important impact on employees’ innovative behaviors\textsuperscript{[19]}. Based on this, democratic leadership will also affect employees innovation behavior. The specific reasons are as follows: First, the leadership-member exchange theory believes that the quality level of the relationship formed by superior leaders and their direct reports will affect individual employee behavior and attitudes. Democratic leaders show a close and friendly attitude to their subordinates, and it is easy to build high-quality leadership-member exchange relationships with employees, and subordinate employees will also feel the trust and attention from the leader, and thus show willingness to try innovative behavior. Second, the management style of "encourage participation" presented by democratic leadership not only makes employees perceive more leadership recognition and appreciation, but also makes employees believe that they will not be led by their own "errors" The punishment will help to increase employees’ enthusiasm to participate in innovation. Accordingly, the following assumptions are made:

H3: Democratic leadership has a positive impact on employees’ innovative behavior.

Combining the above assumptions about the logical relationship between leader’s noninterference orientation and employees’ innovative behavior, the reasoning is that the leader’s noninterference orientation will act indirectly on the employees’ innovative behavior through the intermediary mechanism of democratic leadership. Accordingly, the following assumptions are made:

H4: Democratic leadership exerts an intermediary effect between leader’s noninterference orientation and employees’ innovative behavior.

Based on the above research assumptions, the theoretical model is shown in Figure 1.

3. Research Design

3.1. Scale Design

The scale of leader’s noninterference orientation is selected from the study of Wu Lijuan, it is a mature scale widely recognized and used in academic circles so far. The scale of democratic leadership is taken from the leadership style scale compiled by Lewin et al., which is highly
authoritative in the field of leadership style research. The scale of employees’ innovative behavior is taken from the research of Scott and Bruce, which is widely recognized by the academic community and has been proved to be applicable to Chinese organizational situations\textsuperscript{[5]} in previous studies. This article intends to select gender, age, education level, working years as the control variables\textsuperscript{[4,18]}. All variables (except the control variables) are scored using Likert’s 5-level scale.

3.2. Data Collection

Since this study is a cross-level study, data must be collected from two levels of leadership and employees. This study will use a pair of questionnaires to fill out the questionnaire and let the leaders and their employees respond to the corresponding leadership questionnaire and employee questionnaire. The researchers conducted a data survey on 99 teams and 358 employees from 24 enterprises in Zhejiang from March to May 2019. Data collection was carried out by on-site distribution and recovery. A total of 550 questionnaires were distributed. After eliminating invalid questionnaires such as continuous repetitions, serious absences and obvious short response time, a total of 457 valid questionnaires were recovered, including 99 leadership questionnaires and employee questionnaires 358 copies. The descriptive statistics of the sample are shown in Table 1.

\begin{table}[h]
\centering
\caption{Descriptive statistical analysis of the sample.}
\begin{tabular}{|c|c|c|c|c|c|}
\hline
\textbf{Statistics} & \textbf{Classification} & \textbf{Frequency} & \textbf{Percentage %} & \textbf{Frequency} & \textbf{Percentage %} \\
\hline
\textbf{Gender} & male & 201 & 56.1 & 61 & 61.6 \\
& female & 157 & 43.9 & 38 & 38.4 \\
& 18~30years old & 72 & 20.1 & 8 & 8.1 \\
& 31~40years old & 126 & 35.2 & 28 & 28.3 \\
& 41~50years old & 148 & 41.3 & 15 & 15.2 \\
& 51~60years old & 9 & 2.5 & 33 & 33.3 \\
& 60 years old and above & 3 & 0.8 & 15 & 15.2 \\
& below specialist & 26 & 7.3 & 7 & 7.1 \\
& specialist & 105 & 29.3 & 23 & 23.2 \\
& undergraduate & 176 & 49.2 & 58 & 58.6 \\
& master degree and above & 51 & 14.2 & 11 & 11.1 \\
& under 3 years & 59 & 16.5 & 9 & 9.1 \\
& 4-6 years & 84 & 23.5 & 24 & 24.2 \\
& 7-9 years & 140 & 39.1 & 47 & 47.5 \\
& more than 10 years & 75 & 21.0 & 19 & 19.2 \\
\hline
\end{tabular}
\end{table}
4. Data Analysis and Hypothesis Testing

4.1. Data Quality Analysis

First, the Cronbach’s α coefficients of each variable are 0.906, 0.880 and 0.874, the CR values are 0.934, 0.890 and 0.879, indicating that the scale has a good combination of degree and internal consistency. Second, the three-factor model has the best fit ($\chi^2/df = 1.219$, RMSEA = 0.047, NFI =0.950, IFI =0.991, TLI =0.987), indicating that the scale has high measurement validity. Third, the principal component analysis extracted three common factors, which explained a total of 65.679% of the total variance. At last, the leader’s noninterference orientation ($r=0.561$, $p<0.01$) and democratic leadership ($r=0.173$, $p<0.01$) both have a positive related to employees’ innovative behavior; the leader’s noninterference orientation is significantly positively related to democratic leadership ($r=0.149$, $p<0.01$).

4.2. Hypothetical Test

First, zero model test. This study builds a zero model with employees’ innovative behavior as the dependent variable, and analyzes that ICC1=0.181>0.059, ICC2=0.726>0.7. The variance within the group was significantly, indicating that cross-level analysis was possible.

Second, main effect test. As shown in M4 in Table 2, The results show that: the leader’s noninterference orientation ($\beta=0.408$, $p<0.05$) has a significant positive impact on employees’ innovative behavior, and H1 is supported.

Third, intermediary effect test. As shown in M2 in Table 2, the leader’s noninterference orientation ($\beta=0.105$, $p<0.05$) has a significant positive effect on democratic leadership, H2 is supported. As shown in M6, when the leader’s noninterference orientation and democratic leadership are included in the equation at the same time, the independent variable leader’s noninterference orientation influences the innovation coefficient of the dependent variable from the decrease of 0.408 to 0.397 indicates that democratic leadership plays a part of the intermediary role between leader’s noninterference orientation and employees’ innovative behavior, H4 is supported. As shown in M5, democratic leadership ($\beta=0.127$, $p < 0.05$) significantly positively affects employees’ innovative behavior, and H3 is supported.
### Table 2. Analysis of cross-level intermediary effect.

| Variables                        | Democratic leadership | Employees’ innovative behavior |
|----------------------------------|-----------------------|--------------------------------|
|                                  | M1                    | M2                    | M3                    | M4                    | M5                    | M6                    |
| Intercept                        | 4.113***              | 4.327***              | 4.248***              | 4.967***              | 4.530***              | 5.119***              |
| Level 1 control variables        |                       |                       |                       |                       |                       |                       |
| Gender                           | -0.119                | -0.116                | -0.121*               | -0.120                | -0.121*               | -0.115                |
| Age                              | -0.141**              | -0.135*               | -0.144**              | -0.142**              | -0.145*               | -0.141**              |
| Education level                  | 0.035                 | 0.031                 | 0.028                 | 0.050                 | 0.027                 | 0.035                 |
| Working years                    | -0.020                | -0.019                | -0.021                | -0.014                | -0.019                | -0.019                |
| Level 2 control variables        |                       |                       |                       |                       |                       |                       |
| Gender                           | -0.014                | -0.012                | -0.097                | 0.103                 | -0.090                | -0.137                |
| Age                              | 0.078                 | 0.084                 | 0.077                 | 0.177*                | 0.113*                | 0.022                 |
| Education level                  | -0.212*               | -0.205*               | 0.188                 | 0.024                 | 0.153**               | 0.151*                |
| Working years                    | -0.244                | -0.241                | 0.102                 | 0.439                 | -0.145                | 0.145                 |
| Independent variable             |                       |                       |                       |                       |                       |                       |
| Leader’s noninterference         | 0.105*                | 0.408**               | 0.397**               |                       |                       |                       |
| orientation                      |                       |                       |                       |                       |                       |                       |
| Democratic leadership            |                       |                       |                       | 0.127*                | 0.106*                |                       |
| estimation                       |                       |                       |                       |                       |                       |                       |
| Sigma square                     | 0.321                 | 0.324                 | 0.324                 | 0.325                 | 0.324                 | 0.324                 |
| Tau                              | 0.042                 | 0.040                 | 0.040                 | 0.044                 | 0.040                 | 0.044                 |

Note: * p <0.05, ** p <0.01.

### 5. Research Conclusion

The leader’s noninterference orientation has a significant positive impact on employees’ innovative behavior. This shows that high-noninterference orientation leader will respect employees, give employees the freedom to deal with problems, so that employees have decision-making power at work, and employees perceiving a series of support from leaders, they will be brave to present their new ideas to leaders and others, and be able to constantly break through themselves in their work.

Democratic leadership has an intermediary role between leader’s noninterference orientation and employees’ innovation behavior. This shows that the stronger the leader’s noninterference orientation, the more its behavior tends to democratic leadership style, which in turn will encourage more employees to innovate.
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