Research on the Influence of Ethical Leadership on Employee Innovation
—A cross-level adjustment model

Zhang Ningyi
School of Management, Zhejiang University of Technology, Hangzhou

Keywords: ethical leadership; employee innovation; employee organizational belonging; supervisor trust

Abstract: President Xi Jinping pointed out in the report of the 19th National Congress of the Communist Party of China that innovation is the first driving force for development and the strategic support for building a modern economic system. In an enterprise, employees' innovative psychological attitudes and behaviors are bound to be affected by their leaders' various behaviors. In this paper, through 308 valid questionnaires, a cross-level adjustment model is constructed to explore the influence mechanism of ethical leadership on employee innovation. The research results show that: (1) ethical leadership style is an important antecedent variable for employee innovation; (2) employee organizational belonging plays a partial intermediary role between ethical leadership and employee innovation; (3) supervisor trust can be positively regulated the direct impact of ethical leadership on employee innovation. Finally, this article discusses that managers can promote the innovative behavior of employees by enhancing ethical leadership style; strengthening the promotion of corporate culture and values; coherent words and deeds and strictly following the rules and regulations.

1. Introduction

In a rapidly changing and competitive business environment, the continuous innovation of employees is the key to ensuring that companies maintain their own competitive advantages. Zhou and Shalley (2003) believe that innovation refers to the creation of novel, practical, and valuable products, processes, methods, and ideas by individuals for organizations, and is the interaction between the social environment and individual personal characteristics. It is necessary to deeply explore the intricate relationship between leadership style and employee innovation behavior.

Ethical leadership pays attention to fairness, and is good at motivation. It is a leadership behavior that conforms to traditional ethics. Its management characteristics mainly include personal charm, motivation, thinking inspiration, and employee development. Studies have confirmed that some behaviors of employees are closely related to ethical leadership. Ethical leadership promotes employees’ aggressive behavior and organizational citizenship behavior and reduces employees’ silent behavior.

The situational factor of leadership style can affect employees' behavior only through their own psychological cognition. In addition, trust has always been regarded as an important factor in maintaining organizational effectiveness and survival, and is also the cornerstone of the smooth operation of interpersonal relationships. Whether the difference in the degree of trust in supervisors caused by individual differences will affect employees' adjustment of their own innovative behaviors, there is a relatively lack of research on this aspect at home and abroad. This study attempts to make up for this gap. To this end, this paper constructs a research model based on social exchange theory, explores the influence mechanism of ethical leadership on employee innovation in the context of Chinese organizations, and explores the contingency effect of supervisor trust, in order to provide useful enlightenment to organizational management practices.
2. Theoretical basis and research hypothesis

2.1. Ethical leadership and employee innovation

Brown, Trevino, and Harrison (2005) define ethical leadership as “the demonstration of normal and appropriate behaviors through personal behavior and interpersonal relationships, and the promotion of follower behavior through two-way communication, reinforcement, and decision-making.” Such leaders can do justice to principled, fair choice and structured working environment. Since Brown et al. (2005) proposed the definition of ethical leadership, Piccolo (2011), Lu Qing (2012), and Byun (2018) have confirmed that ethical leadership can positively predict employee performance through empirical studies. Studies by other scholars have also shown that ethical leadership can stimulate employees’ moral behavior, such as ethical behavior, organizational citizenship behavior, and internal disclosure behavior (Cheng J. et al., 2019). Based on interviews with business leaders, Chen Xiaoping (2006) believes that there are 6 specific leadership behaviors that can have a greater positive impact on employee innovation, including caring for employee development, arranging resources for employee innovation, setting an innovative role model, and having a positive entrepreneurial spirit and tolerance. Failure, innovation performance appraisal, and empowering employees to realize their creativity independently. Based on the basis of previous research, when the leader shows ethical behavior, such as personally caring for the employee’s own development, providing innovative resources, tolerating employee innovation failure, and actively authorizing employees to implement innovation, employees will be supported by the leader Show more innovative behavior.

Social exchange theory is a social psychology and sociological theory. Its basic view is, human (part of) behavior is a kind of exchange, and people interact with others in order to get a certain reward. According to the theory of social exchange, the integrity, honesty and frankness of ethical leaders are the key basis for positive behavior of employees. Leaders provide equal job opportunities to their subordinates, agree to basic conditions for employees, deal with problems fairly, listen to their subordinates’ opinions and recognize their contributions. When employees firmly believe that leaders will evaluate their efforts fairly and give due rewards and rewards, they are willing to take active and innovative behaviors to better achieve their work goals. In summary, this research proposes the following research hypotheses.

H1: Ethical leadership has a positive impact on employee innovation.

2.2. The mediating role of employee organizational belonging

An employee’s sense of belonging to the organization refers to the employee’s identification with the organization as a whole, such as vision, beliefs, values, behavior, etc., and understanding of team members as "owners". The altruistic tendency of ethical leadership makes it willing to help employees regardless of external benefits, which can promote employees’ identification with the organization to a certain extent, and guide employees to actively provide extra efforts, take innovative behavior spontaneously. The altruistic tendency of ethical leadership can provide employees with a good working environment and show and instill optimism to employees, so that employees are full of hope for work and organization, so they are more motivated and motivated to innovate. Altruism of ethical leadership tendency to be good at encouraging employees to integrate into the collective, enhance the sense of collective honor, regard the collective as the second "home", and treat work positively and optimistically. It can be seen that in a team with a high sense of belonging among employees, team members’ awareness of “owners” increases, and therefore they will work harder and innovate for the benefit of “owners”. Based on the above analysis, this research proposes the following hypotheses.

H2: The sense of belonging of the employee organization plays an intermediary role between ethical leadership and employee innovation.

2.3. The moderating role of supervisor trust

According to the theory of social exchange, innovation is an employee's behavior of rewarding
the organization and leadership, and trust is one of the important factors affecting this social exchange relationship. If employees have a low level of trust in their supervisors, it may reduce the probability of employees making innovative behaviors that are beneficial to the overall performance of the organization. Based on the above analysis, this research proposes the following hypotheses.

H3: In the influence of ethical leadership on employee innovation, supervisor trust plays a moderating role. Specifically, the higher the employees' trust in their supervisors, the stronger the positive influence of ethical leadership on employees' innovation behaviors will be. The lower the employees' trust in their supervisors, the weaker the positive influence of ethical leadership on employees' innovation behaviors will be.

Based on the above theoretical analysis, the specific research framework of this study is as shown in figure 1.

Figure 1 Theoretical model

3. Research methods

3.1. Research sample

This research adopts the online questionnaire survey method to collect questionnaires from Hangzhou, Ningbo, Shanghai and other local enterprises and institutions in June 2020, involving many industries such as manufacturing, medicine, and service. A total of 327 samples were received, and 308 valid questionnaires were obtained after excluding invalid questionnaires. The effective rate of the questionnaires was 94.19%. Descriptive statistical analysis of the sample shows that there are 167 males, accounting for 54.2%, 141 females, accounting for 45.8%, and the ratio of male to female is close to 1:1; employees with a bachelor degree or above account for 75%; employees aged 26-45 account for 56.8%; employees with a working experience of more than 10 years accounted for 78.8%; the positions of employees are mostly general employees (41.5%) and middle managers (29.2%).

3.2. Variable measurement

Select mature Chinese and English scales for investigation, and use Likert-5 point scale for scoring. 1 to 5 respectively indicate very disagree, disagree, general, agree, and very agree.

Ethical leadership adopts the original single-dimensional ethical leadership scale including 10 items developed by Brown (2005). The items include "Leaders have set an example for us on how to deal with problems ethically".

Employee sense of belonging to organization is mainly measured using the 6-item one-dimensional structure scale designed and developed by Cook et al. (1980), combined with individual items of the organizational sense of belonging scale designed by Mowday (1979).

Employee innovation adopts the employee innovation behavior scale developed by Scott and Bruce (1994), which includes 6 measurement items. The items include "I try to use new technologies and methods at work".

The trust scale for supervisors comes from a questionnaire developed by Philip M. Podsakoff., Scott B. MacKenzie., Robert H. Moorman., Richard Fetter (1990). The items include “I am very confident that my leader will treat me fairly".
The control variables draw on the empirical papers of Zhang Yajun (2017) and Wang Jing (2019), and select gender, age, education level, position level, and working years as control variables to reduce the interference of demographic information on the theoretical model.

4. Data analysis

4.1. Descriptive statistics and correlation analysis

The mean, standard deviation, and correlation coefficients of the variables involved in this study are shown in Table 1. The sense of organizational belonging of employees is positively correlated with employee innovation \( (r=0.45, p<0.01) \), and supervisor trust is positively correlated with employee innovation \( (r =0.485, p<0.01) \), positively correlated with ethical leadership \( (r=0.817, p<0.01) \), and positively correlated with employee organizational belonging \( (r=0.695, p<0.01) \).

4.2. Hypothesis testing

Hierarchical regression is used for hypothesis testing, and the data fits the model well. The specific results are shown in Table 2. M4 test H1, the results show that ethical leadership has a significant positive impact on employee innovation \( (r=0.369, p<0.001) \), H1 is established. M6 tested the mediating role of psychological security. The results showed that after ethical leadership and employee organizational belonging were entered into the model at the same time, ethical leadership decreased from 0.369 to 0.253, employee organizational belonging decreased from 0.529 to 0.289, that is, employee organizational sense of belonging plays part of the intermediary role, and H2 is established. M8 examines the moderating effect of supervisor trust, and the results show that the coefficient of the interaction term is significant \( (r=0.12, p<0.01) \), that is, supervisor trust positively regulates the positive influence of ethical leadership on employee innovation, and H3 is established.

Figure 2 is a diagram of the moderating effect to more intuitively reveal the mechanism of supervisor trust on the relationship between ethical leadership and employee innovation. It can be seen from Figure 2 that the more ethical leadership behaviors shown by managers in their interactions with subordinates, the more innovative behaviors they can inspire. Since the degree of trust in the supervisor varies from person to person, it will also have an impact on the level of innovation of employees. Specifically, employees with low trust in the supervisor can adjust their behavior from the long-term development of the organization and the individual, and facing ethical leaders will enhance innovative behavior, but they are far lower than employees trusted by senior executives. H3 was established.

5. Discussion

5.1. Research conclusion

First, ethical leadership has a positive impact on employee innovation behavior. The reasons include but are not limited to, ethical leaders are good at rewarding ethical behaviors and punishing unethical behaviors, paying attention to the leadership-member relationship between leaders and subordinates, helping employees who encounter difficulties, making employees feel the leadership’s care, improving employees’ self sense of identity, and promoting the innovative behavior of employees. The empirical research results of Rene and Chadee (2017) also show that ethical leadership can help improve employee job satisfaction, thereby inspiring employees to produce innovative behaviors. Since ancient times, China has emphasized "benevolent governance" and "people are precious". Ethical leadership is a leadership style based on China's national conditions. This localized leadership style in China has been proved to be an important antecedent variable of employee innovation through empirical research, which broadens the research on factors affecting employee innovation.
Second, the sense of belonging of the employee organization plays a part of the mediating role between ethical leadership and employee innovation. This research confirms the part of the mediating role of employee organizational belonging between ethical leadership and employee innovation, and extends the research on the mechanism of ethical leadership and employee innovation. This shows that ethical leadership’s altruism and good at motivating employees have enhanced employees’ sense of belonging to the organization to deal with difficulties at work, and in turn stimulated employees’ innovative behavior. Ethical leadership is a leadership style with positive factors such as tolerance and care. Authoritarian leaders are strict with their subordinates, which employee easily separates themselves from the organization or the leader, treats work as a daily qualitative task, and lacks of personal affection for the organization or leader. The discovery of this intermediate variable enriches the theoretical research in the field of employee innovation.

Third, in the influence of ethical leadership on team innovation, supervisor trust plays a moderating role. Exploring the contingency mechanism of supervisor trust, confirming that supervisor trust can effectively enhance the direct influence of ethical leadership on employee innovation, and enriching the empirical research on supervisor trust. In the Chinese context, the power distance between leaders and employees is relatively large. In addition, the psychological security brought by the trust of supervisors can make employees more concentrated at work, which can have a very important effect and influence on employees' improvement of work performance and innovation awareness.

5.2. Management recommendations

Based on the above research conclusions and the actual situation of the company, companies need to do the following three points in the practice of innovation management.

(1) Leaders focus on the long-term benefits of the organization and appropriately adjust management methods. First of all, managers need to improve their own moral awareness, including the understanding of management's status, nature, role, service objects, service methods, etc. Leaders should recognize that their own behavior will have a significant impact on employees' innovative attitudes and actions. Ethical leaders are good at motivating employees, allowing them to realize that the leaders attach importance to their work, and helping them to have a strong sense of competence and self-satisfaction, thereby better achieving work goals and ethical leaders are willing to share information with employees. The open acceptance and feedback of information helps
employees to produce innovative behavior.

(2) We should pay attention to the shaping and publicity of corporate culture and corporate values, and enhance employees' sense of belonging to the organization. In the current fierce competition, factors such as unequal job opportunities and excessive income gap can easily cause internal conflicts in the organization, thereby reducing the cohesion of the organization, reducing the innovation enthusiasm of employees, and ultimately affecting the development prospects of the company. To solve this problem, most people must participate in the management of the organization and be able to enjoy the benefits of organizational development.

(3) Organizations should focus on cultivating managers to lead by example, consistent words and deeds, and fair and fair ethics. On the one hand, in the process of employee innovation management, leaders should make employees feel that they are a leader with consistent words and deeds, a true ethical leader, so as to strengthen the trust of employees in supervisors and be more willing to innovate. On the other hand, the organization should improve the reward and punishment system, encourage ethical behavior and punish unethical behavior, ensure the reasonable interests of employees, promote positive behavior of employees, and enhance the competitiveness of the organization. Leaders should communicate their concern for their subordinates through interaction with their subordinates, express support for their subordinates through ethical behavior, treat them fairly, and encourage employees to express their opinions. Only in this way can employees feel recognized by the organization and leadership, strengthen their trust in their supervisors, encourage employees to work hard, and inspire their innovative behavior.

5.3. Research limitations and prospects

This study also has some limitations and deficiencies: (1) The survey data is self-evaluated by employees and is cross-sectional data; (2) This study uses foreign related scales to study ethical leadership and employee innovation behavior in the Chinese context. Although the scale has been cited by many scholars many times before, the cultural fit of the scale needs further verification. In the future, research can collect data at different time nodes to improve the accuracy and rigor of research, and follow-up research can develop relevant scales based on Chinese cultural background and management context.

References


Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th>Category</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>sex</td>
<td>1.46</td>
<td>0.499</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>age</td>
<td>3.1</td>
<td>0.869</td>
<td>0.014</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>education level</td>
<td>1.89</td>
<td>0.651</td>
<td>0.056</td>
<td>0.037</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>position level</td>
<td>2.07</td>
<td>1.047</td>
<td>-0.150**</td>
<td>0.253**</td>
<td>0.083</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>working year</td>
<td>3.71</td>
<td>0.63</td>
<td>-0.019</td>
<td>0.703**</td>
<td>0.016</td>
<td>0.264**</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>employee organization sense of belonging</td>
<td>3.5097</td>
<td>0.54855</td>
<td>0.040</td>
<td>-0.101</td>
<td>-0.078</td>
<td>0.024</td>
<td>-0.083</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>staff innovation</td>
<td>4.0103</td>
<td>0.66475</td>
<td>0.007</td>
<td>-0.077</td>
<td>0.004</td>
<td>0.203**</td>
<td>-0.050</td>
<td>0.450**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>supervisor trust</td>
<td>3.6675</td>
<td>0.83138</td>
<td>0.024</td>
<td>-0.151**</td>
<td>-0.087</td>
<td>0.071</td>
<td>-0.099</td>
<td>0.695**</td>
<td>0.485**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>ethical leadership</td>
<td>3.6383</td>
<td>0.86459</td>
<td>0.037</td>
<td>-0.185**</td>
<td>-0.123*</td>
<td>0.058</td>
<td>-0.116*</td>
<td>0.624**</td>
<td>0.492**</td>
<td>0.817**</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: n=308; **Significantly correlated at the 0.01 level (bilateral); *Significantly correlated at the 0.05 level (bilateral)

Table 2. Hypothesis test regression analysis results

<table>
<thead>
<tr>
<th>Category</th>
<th>Sense of belonging</th>
<th>employee innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M1</td>
<td>M2</td>
</tr>
<tr>
<td>control variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sex</td>
<td>0.062</td>
<td>0.016</td>
</tr>
<tr>
<td>age</td>
<td>-0.059</td>
<td>0.027</td>
</tr>
<tr>
<td>education level</td>
<td>-0.070</td>
<td>-0.002</td>
</tr>
<tr>
<td>position level</td>
<td>0.038</td>
<td>-0.006</td>
</tr>
<tr>
<td>working year</td>
<td>-0.029</td>
<td>-0.032</td>
</tr>
<tr>
<td>independent variable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ethical leadership</td>
<td>0.398***</td>
<td>0.369***</td>
</tr>
<tr>
<td>mediator variable</td>
<td>Sense of belonging</td>
<td>0.529***</td>
</tr>
<tr>
<td>moderator variable</td>
<td>Supervisor trust</td>
<td>0.372***</td>
</tr>
<tr>
<td>interactive item</td>
<td>Supervisor trust × ethical leadership</td>
<td>0.120**</td>
</tr>
<tr>
<td>adjusted R²</td>
<td>0.007</td>
<td>0.379</td>
</tr>
<tr>
<td>ΔR²</td>
<td>0.023</td>
<td>0.391</td>
</tr>
</tbody>
</table>