

# Factors Affecting the Climate of Error Management: The Role of Leadership Style and Organizational Culture

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## Abstract

Errors are inevitable and every organization may be plagued by errors. The existing research focuses on the consequences of the error management climate variables, the research on its antecedent variables is relatively rare. This paper explores the influence of paternalistic leadership on the culture of error management and focuses on the mediating role of organizational culture.

## Keywords

Error management climate, Paternalistic leadership, Organizational culture.

## 1. Introduction

Error means that the employee's actions or plans have inadvertently deviated from the goal [1]. Employees will inevitably make mistakes in their daily work, so each organization may be plagued by errors [2]. Mistakes can bring significant losses to the organization [3], performance decline, and other major impacts, and even lead to the organization's demise, so management errors are necessary. Organizations can manage errors through error management culture [3], but there is still no consensus in the academic community regarding the formation mechanism of error management culture. Previous studies have found that the culture of error management is influenced by leadership behavior [4]. The predecessor literature also pointed out that organizational culture will affect the special culture of the organization [5], then the error management culture as a special culture of organization should also be influenced by organizational culture. From this we suspect that the error management culture will be influenced by organizational culture and leadership style, but because the predecessors did not study it in depth, the relationship between the three is still vague. Understanding the formation mechanism of the error management culture can complement and refine the error management theory and help organizations use error management to improve performance. Therefore, the research topics in this paper have important theoretical and practical significance.

Related research is divided into the following two aspects: (1) Research on the antecedents of error management culture: Individual literature mentions the antecedents of error management culture, such as Seiler and Pfister [4] pointed out that leadership behavior will affect the culture of error management. The leadership orientation and leadership style also influence the culture of error management [6, 7]. However, the excavation of the antecedents of the error management culture in the above literature is not deep enough. In the field of similar organizational security culture research, some scholars have suggested that leadership style will affect the security culture [8]. The style of leadership and the culture of the organizational unit will affect the security climate, and the degree of impact is different [9]. (2) Research on the consequences of paternal leadership: such research is rich. On the one hand, a large number of literatures have found that paternalistic leadership has a positive effect on team performance (including innovation performance). On the other hand, some scholars have

suggested that paternalistic leadership has an impact on employees' individual behaviors (such as advocacy behavior).

The shortcomings of the existing literature: (1) The antecedent aspect of the error management culture, lack of discussion on the mechanism of the antecedent variable. Similar research fields (such as safety culture), although scholars have proposed a theoretical framework, but the error management culture and the security culture are somewhat different, and the relevant research conclusions may not be applicable. (2) The consequences of paternal leadership lack attention to the organizational climate. Some scholars have pointed out that different types of leadership styles lead to different organizational cultures. Patriarchal leadership should also play a similar role, but related research is still rare.

Different from the predecessors' literature, the work of this paper is as follows: (1) Construct a mediation effect model including leadership style and organizational culture, and explain the formation mechanism of error management culture. (2) The influence of paternalistic leadership on organizational culture and organizational special culture was studied, and a new theoretical explanation was added for the role of paternalistic leadership.

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## **2. Literature References**

### **2.1. Concept Definition**

#### **2.1.1. Patriarchal Leadership**

Patriarchal leadership refers to the leadership style that reflects strict rules and authority, fatherly kindness, and moral integrity in the culture of governance. [10] It is divided into three dimensions: authoritarian leadership, benevolent leadership, and moral leadership. Authoritarian leadership is a kind of leadership behavior that advocates power, controls employees, and requires employees to obey unconditionally. Benevolent leadership is a leadership behavior that demonstrates individual, comprehensive, and lasting care for employees' personal and family well-being. Leadership is the leadership behavior that is respected and recognized by employees through outstanding personal qualities.

#### **2.1.2. Organizational Cultures**

Organizational culture refers to "a basic hypothetical model", "values" or "beliefs" and "code of conduct", which are values and codes of conduct shared by employees. Organizational culture orientation refers to the behavioral tendency of the organization driven by cultural values. The predecessors combined the research of O'Reilly et al. [11] and Hofstede et al. [12] to divide organizational culture orientation into Employee-oriented Culture and Result-oriented Culture. The employee-oriented organizational culture is oriented to meet individual needs, emphasizing respect for employees, emphasizing the relationship between the lower and upper levels of the company, and aspire to create a fair, trustful, free and happy working environment for employees. The result-oriented organizational culture is oriented towards doing a good job and achieving results, focusing on operational efficiency, and emphasizing that any behavior of the organization is subject to the need to achieve its goals.

#### **2.1.3. Error Management Climate**

The error management culture refers to organizational practices, procedures, and common attitudes related to errors. In short, it refers to the ways and means of organizing errors [1]. The error management culture can be divided into positive (open, learning-oriented) and negative (aversion, blame-oriented) error management culture [3].

Positive error management culture, this culture is more tolerant, allowing members of the organization to make mistakes and limit the punishment for wrong behavior, emphasizing correcting mistakes, thoroughly analyzing the wrong behavior and potential causes, supporting

the members of the organization to communicate with each other in order to provide solutions, tend to loose Organizational culture. Negative error management culture, this culture is more stringent, does not allow members of the organization to make mistakes, members of the organization will try to hide mistakes because of fear of punishment, and tend to a serious organizational culture. This paper argues that the positive error management culture includes four dimensions: contingency processing, analytical solution, tolerance and sympathy, and negative error management culture including blaming a dimension.

## 2.2. Research Framework

On the one hand, previous scholars believe that organizational culture will affect the special culture [5]. Previous studies have also proved that organizational culture will affect the security culture [9]. The error management culture is similar to the security culture and is also a special culture for organizations. From this we guess that the error management culture will also be affected by the organizational culture. In addition, leadership behavior will affect the culture of error management [4], leadership's error orientation and leadership style will also affect the error management culture [6,7]. In summary, we believe that the formation of an error management culture is influenced by leadership style and organizational culture. On the other hand, leadership is critical to the evolution of organizational culture, and different leadership styles promote the formation of different organizational cultures. Therefore, we believe that leadership style will affect organizational culture. At the same time, in similar research areas, Weng et al. [13] found that organizational culture mediates the relationship between leadership perception and safety climate. In summary, organizational culture is an important link between leadership style and error management culture.

According to previous studies on leadership style, organizational culture and error management culture, combined with the similar relationship of organizational security culture portrayed. We speculate that, first of all, the formation of error management culture is influenced by leadership style and organizational culture; secondly, leadership style will affect organizational culture; finally, organizational culture plays a mediating role in the relationship between leadership style and error management culture. The research framework of this paper is shown in Figure 1.

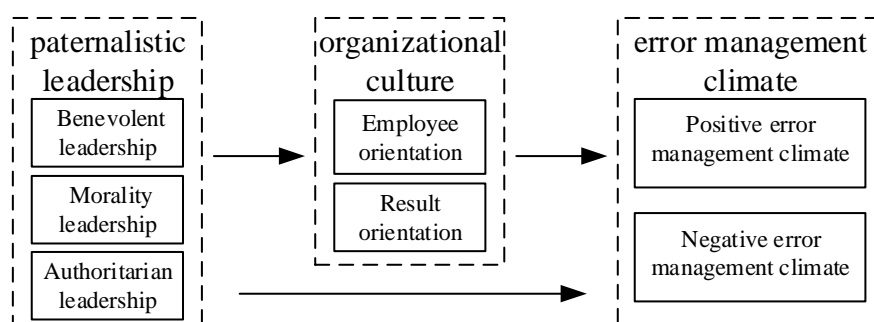


Fig 1. Research framework

## 3. Research Hypothesis

### 3.1. Patriarchal Leadership and Error Management Culture

The benevolent leadership regards employees as family members and pays attention to the dual care and guidance of employees' work and life. When employees make mistakes, they will tolerate employee errors, maintain the face of employees, and even try to understand when employees are not performing well. Employees and seek reasons [10]. Such behavior by benevolent leadership will make the organization tend to accept errors in the practice of dealing with mistakes, and formulate some systems that are inclusive or accepting errors in the

process, and employees will form a common attitude of tolerance and error. Thereby, a positive error management culture is formed.

Authoritarian leaders usually have strict control over their employees, do everything in an arbitrary manner, and cannot tolerate mistakes [10]. Because they can't tolerate mistakes in their work. And its behavior will give employees a depressed and inhumanized working culture, so it will make the organization tend to reject mistakes in the practice of dealing with mistakes, and formulate some systems that reject errors in the process, and employees will also form exclusion and avoidance. A common attitude of mistakes. Thereby, a negative error management culture is formed.

The leaders of the Bank of China are generous and treat people. They care and help their employees at work. Therefore, when employees make mistakes, the leaders of the Bank will take the initiative to understand the internal reasons, help the employees to relieve stress, and provide pertinent suggestions to make employees feel safe. Such behavior by the leaders of the Bank will make the measures formulated by the organization more inclusive for employees who have made mistakes, and other employees will be more likely to accept mistakes and show their sympathy and understanding. Thereby, a positive error management culture is formed.

Leaders of virtues are strict with self-discipline, lead by example in their work, dare to take responsibility, do their due diligence for the development of the organization, and even sacrifice their own interests, and strive to maximize the interests of the organization. Its noble personal ethics and good moral cultivation are exemplary for employees, so employees will recognize the values of virtue leadership and emulate their behavior, and will work hard for the interests of the organization. They will be ashamed of not meeting the established goals, and even Proactively demanding more serious penalties to avoid further mistakes. Based on the attitude of emphasizing leadership self-discipline, the organization will formulate strict and punitive measures, and employees will try their best to avoid mistakes and show their tendency to strictly demand themselves. Thereby, a negative error management culture is formed.

Therefore, the hypothesis is proposed:

H1: The benevolent leadership has a positive impact on the positive error management culture.

H2: Authoritarian leadership has a positive impact on the negative error management culture.

H3: Leaders in Germany have a positive impact on the positive error management climate.

H4: Leaders in Germany have a positive impact on the negative error management culture.

### **3.2. Patriarchal Leadership and Organizational Culture**

The benevolent leadership advocates caring for employees, caring for employees and their families, and paying attention to employees' feelings. When employees get the care of leaders, they will have a heartfelt gratitude for benevolent leadership, trust and rely on leaders in their work, and the relationship between employees and leaders and employees is improved. Working in such an environment is comfortable and comfortable, which helps to form a relaxed and happy organizational culture. This promotes the formation of an employee-oriented organizational culture.

Authoritarian leaders demand high performance, pay attention to the results of employees' work, and are not concerned about the lives of employees. At the same time, employees are forced to rely on the authoritarian style of authoritarian leadership, will publicly echo the behavior and speech of leaders, be forced to care about their work output, and pay attention to the completion of current tasks and goals. Based on this, the entire organization will form an culture that seeks to maximize the interests of the organization, thereby promoting the formation of a result-oriented organizational culture.

Leaders of virtue have a high level of virtue. They give employees fair treatment and let them feel the impartiality of the organization. And the leaders of virtue can accept different opinions

and criticisms humbly, and will not be jealous and suspicion of employees, so employees do not have to worry about being punished for making opinions different from leaders. Based on this, employees in the company can communicate with leaders easily, live in harmony with the leaders, and even follow the leadership to continuously improve themselves. This promotes the formation of an employee-oriented organizational culture.

Leaders of Dexing love their jobs, are devoted to their duties, and work hard for organizational performance. Employees are stunned and subtle, and will unconsciously imitate and imitate the behavior of leaders, and constantly improve and develop themselves. Ultimately, employees of the entire organization will work hard for organizational interests. And most studies have shown that the leadership of the line has a positive effect on team performance. This promotes the formation of a result-oriented organizational culture.

Therefore, the hypothesis is proposed:

H5: The benevolent leadership has a positive impact on the employee-oriented organizational culture.

H6: Authoritarian leadership has a positive impact on the results-oriented organizational culture.

H7: Leadership in the line has a positive impact on employee-oriented organizational culture.

H8: Leadership in the line has a positive impact on the results-oriented organizational culture.

### **3.3. Organizational Culture and Error Management Culture**

The employee-oriented organizational culture emphasizes giving employees a respectful and appropriate development space, and values the good relationships between employees and between employees and leaders. Based on this, the relationship between the upper and lower levels of the company is harmonious and harmonious, the working culture is relaxed and pleasant, and because the company pays attention to "people-oriented" and cares about the physical and mental development of employees, it is very inclusive to employees, so employees even appear at work. Mistakes will also lead to tolerance and understanding from leaders and colleagues. Thereby, a positive error management culture is formed.

The result-oriented organizational culture focuses on the completion of current tasks, and because of its clear business metrics, it places great emphasis on business performance. Based on this, the whole enterprise will pursue the work output very much and cannot accept the mistakes. In order to avoid the mistakes and damage the interests of the organization, the enterprise will formulate a relatively strict punishment system, and the employees will also avoid the mistakes because they are afraid of punishment. Thereby, a negative error management culture is formed.

Therefore, the hypothesis is proposed:

H9: The employee-oriented organizational culture has a positive impact on the positive error management climate.

H10: Results-oriented organizational culture has a positive impact on the negative error management climate.

### **3.4. Mediating Role of Organizational Culture**

Mediation variables can be thought of as a mechanism for interpreting independent and dependent variables. As mentioned earlier, leadership style influences organizational culture, and organizational culture influences the culture of error management. Weng et al. [13] empirical research found that leadership perceptions affect the team culture and thus affect the security climate, the team culture plays a mediating role. In this relationship, the team culture is equivalent to an organizational culture, and leadership and leadership style are both expressions of leadership behavior. The error management culture is similar to the security

culture, and is a special culture of the organization. In summary, we suspect that organizational culture also plays a mediating role in the relationship between leadership style and error management culture.

When the benevolent leadership and the moral leadership strengthen the employee-oriented organizational culture, the company will be more concerned about the employees, and the performance will be more relaxed when formulating relevant systems. Other employees will be more tolerant and more tolerant when treating the wrong. The error management culture of the entire organization will become more positive. When authoritarian leadership and moral leadership strengthen the results-oriented organizational culture, the corresponding companies will be more concerned about the results, the performance will be more strict when formulating relevant systems, and other employees will avoid errors even more, and the error management culture of the entire organization will be Will turn more negative.

Therefore, the hypothesis is proposed:

H11: The employee-oriented organizational culture plays a mediating role in the relationship between benevolent leadership and positive error management culture.

H12: The employee-oriented organizational culture plays a mediating role in the relationship between the leadership of the German government and the positive error management culture.

H13: Results-oriented organizational culture plays a mediating role in the relationship between the leadership of the German leadership and the negative error management culture.

H14: Results-oriented organizational culture plays a mediating role in the relationship between authoritarian leadership and negative error management culture.

## References

- [1] N.Keith and M.Frese: Enhancing firm performance and innovativeness through error management culture, *Handbook of Organizational Culture and Climate*, Vol. 9 (2011),p.137-157.
- [2] R.F.Hartley: *Management Mistakes and Successes*(Hoboken,NJ: Wiley,2011)
- [3] D.C.Van, M.Frese, M.Baer, et al. Organizational error management culture and its impact on performance: A two-study replication, *Journal of Applied Psychology*,Vol. 90 (2005) No.6, p.1228-1240.
- [4] S.Seiler and A.C.Pfister: "Why did I do this?": Understanding leadership behavior through a dynamic five-factor model of leadership, *Journal of Leadership Studies*,Vol.3(2009) No.3,p.41-52.
- [5] J.C.Wallace, E.Popp and S.Mondore: Safety climate as a mediator between foundation climates and occupational accidents: a group-level investigation, *Journal of Applied Psychology*, Vol.91 (2006) No.3, p.681-688.
- [6] K.P.Cigularov, P.Y.Chen and J.Rosecrance: The effects of error management climate and safety communication on safety: A multi-level study, *Accident Analysis & Prevention*, Vol. 42(2010) No.5,p.1498-1506.
- [7] U.Gronewold, A.Gold and S.E.Salterio: Reporting self-made errors: The impact of organizational error-management climate and error type, *Journal of Business Ethics*, Vol. 117(2013) No.1,p.189-208.
- [8] Y.Shen, C.Ju, T.Y.Koh, et al. The Impact of Transformational Leadership on Safety Climate and Individual Safety Behavior on Construction Sites, *International Journal of Environmental Research and Public Health*, Vol. 14(2017) No.1,p.45-61.
- [9] A.Farag, S.Tullai-McGuinness, M.K.Anthony, et al. Do Leadership Style, Unit Climate, and Safety Climate Contribute to Safe Medication Practices?, *Journal of Nursing Administration*, Vol. 47(2017) No.1,p.8-15.

- [10] B.X.Zheng, L.F.Zhou, and J.L.Fan: Patriarchal leadership: construction and measurement of the ternary model, *Indigenous Psychological Research*, Vol. 14(2000),p.3-64.
- [11] C.A.O'Reilly, J.Chatman and D.F.Caldwell: People and organizational culture: A profile comparison approach to assessing person-organization fit, *Academy of Management Journal*, Vol. 34(1991) No.3,p.487-516.
- [12] G.Hofstede, B.Neuwen, D.D.O'Hayv, et al. Measuring organizational cultures: A qualitative and quantitative study across twenty cases, *Administrative Science Quarterly*, Vol. 35(1990),p.286-316.
- [13] S.J.Weng, S.H.Kim, and C.L.Wu: Underlying influence of perception of management leadership on patient safety climate in healthcare organizations–A mediation analysis approach, *International Journal for Quality in Health Care*, Vol. 29(2017) No.1,p.111-116.