

# How to Encourage Organizational Innovation in Public Organizations? Exploration of the Influence of Cultural Mechanism

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Culture is particularly important as a soft power of competition in public organizations. This article attempts to reveal that public organizational innovation is not dependent on the strength of a condition variable in a public organizational culture, but on the combination of different condition variables. Based on the analysis of 23 public organizations in China, this article employs qualitative comparative analysis (QCA) method to explore the mechanism of public organization culture on organizational innovation. The results are as follows: Firstly, the cultural foundation of public organizational innovation is a combination of high participation and high adaptability. Secondly, “high participation, high adaptability, and high mission” or “high participation, high adaptability, and high consistency” is a necessary condition for organizational innovation. Thirdly, the final score of organizational innovation brought by the same combination of cultural factors of public organizations may have different scores in the three dimensions of technological product innovation, technological process innovation and management innovation. Fourth, for the promotion of organizational innovation in public organizations, it is necessary to create certain conditions in combination with the resource endowment of their own organizations.

*Keywords:* culture mechanism, organizational innovation, QCA, Denison Organizational Culture Model

## Introduction

The public organization culture is cultivated in the long-term development process of public organizations, which is recognized and adhered to by all employees with organizational characteristics, institutional rules and codes of conduct, as well as the concepts in the process of external adaptation and internal integration of public organizations (G. Hofstede, G. J. Hofstede, & Minkov, 2010). The analysis of the public organizational innovation is inseparable from systematic thinking on the fundamental issue of organization culture. The public organization culture and organizational innovation are mutually infiltrated and integrated with each other, so that public organizations can reach a higher service level.

Innovation culture has become one of the important factors influencing the innovation of public organizations. As a common value basis of public organizations, it restricts the thinking mode of each member of the organization and further affects the innovation behavior of public organizations as a whole (Hofstede, 1990; Jaskyte & Dressler, 2005; Zafer & Pınaro, 2014). Public organization culture represents the main content

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of the informal institution of the public organizations. Public organizational innovation is the process of the creative integration activities to improve the organization's ability and resources to adapt to changes in the internal and external environment or to meet the needs of the organization's internal growth (Mahler, 1997). From the perspective of the role of public organizational innovation, technological innovation, institutional innovation and management innovation are the most important parts (Kimberly, 1981; Walker, Damanpour, & Devece, 2011).

In terms of the effect of public organization culture on organizational technological innovation, some scholars maintain that beliefs and shared values in organization culture affect organizational technological innovation (Moldogaziev & Resh, 2016). Other scholars believe that organization culture influences organizational technological innovation by influencing the thinking mode, values and behavior mode of managers and organizational members (Oyemomi, Liu, Neaga, & Alkhuraji, 2019). In terms of the role of public organization culture in organizational institutional innovation, North (2013) pointed out that culture provided an alternative set for path-dependent innovation because of its long-term and historical influence on innovation. Some scholars argue that national institutional and cultural factors are the key variables influencing innovation (Walker, 2008; Damanpour & Schneider, 2009). Innovation culture plays a key role in the improvement of social innovation ideas, innovation habits, innovation system and innovation ability. They have studied the mediating and regulating effects of public organization culture on organizational innovation. Other scholars contend that organizational system culture has an effect on organizational innovation (Onder, 2011).

The internal and external concerns of organization culture in public organizations can arouse employees' unpredictable potential energy, initiative and responsibility to achieve the organization's high innovation goals by guiding and condensing innovative values, public organization system and employees' innovative behaviors (Lindsay et al., 2018). The internal focus of public organization culture is to cultivate employees' commitment to innovation by emphasizing core values, cooperation, coordination and integration, such as setting the atmosphere for innovation through the use of organizational symbols, logos, slogans and other cultural expressions (Krawczyk, Wooddell, & Dias, 2017). The external attention of public organization culture is mainly reflected in the influence of vision, goal and cultural strategy on the organizational innovation (Stock & McFadden, 2017). When organizations are first formed, leaders have a major impact on emerging cultures. As "definers" of organization culture, they can create and instill values, beliefs and assumptions that they believe are necessary and beneficial to the organization (Ko, Murphy, & Bindman, 2015). As an organization grows and develops, culture reflects the experience of the entire team and the role of founder beliefs in practice. At the same time, the external focus of public organization culture emphasizes the creation of change and organizational learning, and adheres to the values of risk-taking and innovation, which will shape the innovation level of the organization (Lindsay et al., 2018).

However, due to the complexity of organization culture change in the context of globalization, it is necessary to further study the mechanism of public organization culture on organizational innovation, and explore which factors in public organization culture can stimulate collaborative mechanism of organizational innovation. At present, the research about mechanism of organization culture on the public organizational innovation is relatively lacking the in-depth analysis of the "external concern" and "internal concern". Therefore, based on the qualitative comparative analysis (QCA) method, this study conducted a comparative

analysis of 23 public organizations, so as to explore the mechanism of public organization culture on organizational innovation, and try to reveal the influence path of “external concern” and “internal concern” of public organization culture on organizational innovation. This study has a strong theoretical and practical significance for enriching the cultural research of public organizations and solving the problem of stimulating organizational innovation in the dynamic competitive environment.

### Theoretical Background and Hypotheses

The measurement of public organization culture can be divided into qualitative and quantitative research methods. Some scholars represented by Schein (1996) advocate qualitative assessments, including interviews and on-site observations. Some scholars represented by Quinn (1991) advocate quantitative measurements, including the use of scales and questionnaires. Other scholars have combined these two methods for research, such as Hofstede (1990) using interviews and questionnaires to measure organization culture. Although there are a number of measurement methods based on different theoretical frameworks, the design of these tools is related to their respective national cultures. In this study, Denison Organization Culture Survey (DOCS) scale was used as the theoretical basis of public organization culture assessment scale in China.

Based on the background of public organization culture measurement in China, the cultural measurement dimension of public organization includes the external and internal concerns (as shown in Table 1). By distinguishing the differences in the four dimensions of participation, consistency, mission and adaptability of public organization culture, the following conclusions are drawn based on the systematic classification of organization culture.

Inference 1: The cultural foundation of public organizational innovation is the combination of external and internal cultural concerns.

Table 1

*Cultural Dimension of Public Organizations in China*

| Organization culture | Dimension                    | Indicators                                                                                                                                                                                                                                            |
|----------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Participation        | Authorization                | Decisions are made by the people or teams with the most information;<br>Information communication channels are smooth;<br>Employees believe that their work can have a significant impact on the organization.                                        |
|                      | Team-oriented                | There is mutual respect among colleagues in the organization;<br>There is mutual support among colleagues in the organization;<br>Employees can develop good team spirit among organizational departments.                                            |
|                      | Ability of development       | Compared with other organizations, the organization is constantly improving in many aspects;<br>The organization actively trains leading talents;<br>The organization actively develops capacity advantages.                                          |
| Consistency          | Core values                  | The management of the organization strictly follows the policies of the organization;<br>Organization culture effectively reflects the characteristics of the organization;<br>Employees have a high sense of identity with the organization culture. |
|                      | Cooperation                  | The organizational work system has been improved;<br>The organizational supervision system has been improved;<br>The organization appraisal reward and punishment system has been improved.                                                           |
|                      | Coordination and integration | The organization can respond quickly to changes;<br>Organizational resources can be allocated reasonably;<br>The organization has practical safeguards in place.                                                                                      |

Table 1 to be continued

|              |                         |                                                                                                                                                                                                                                                                       |
|--------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mission      | Vision                  | The organization has a common vision for the future;<br>The management of the organization has a long-term vision;<br>The vision of the organization is the source of effort for employees.<br>Employees have a consistent understanding of the organization's goals; |
|              | Target                  | Organizational leaders set ambitious and realistic goals;<br>The leader of the organization clearly stated the goals to be achieved.<br>The organization has a long-term development goal and direction;                                                              |
|              | Cultural strategy       | The organization has a clear strategic positioning of organization culture;<br>The organization has a clear mission to guide the work of the employees.                                                                                                               |
| Adaptability | Organizational learning | The organization often organizes regular academic exchanges and cooperation;<br>The organization often carries out the education of organization culture;<br>The organization regularly conducts professional training for employees.                                 |
|              | Target-customers first  | The relationship between employees and customers is harmonious;<br>The organization can resolve disputes properly;<br>The opinions of the customers often lead to organizational changes.<br>The organization often innovates its propaganda work;                    |
|              | Creating change         | The organization can effectively meet quality service requirements;<br>The organization gives rewards to employees who take risks and innovate.                                                                                                                       |

The outcome variable of this research is organizational innovation. The outcome variables were measured by organizational innovation questionnaires of Jaskyte and Dressler (2005), and by referring to the questionnaires of Damanpour and Schneider (2009). The final measurement items were 13 items in total (as shown in Table 2).

Table 2

*Organizational Innovation Dimension of Public Organizations*

| Organizational innovation        | Indicators                                                                              |
|----------------------------------|-----------------------------------------------------------------------------------------|
| Technological product innovation | Introduce a new service or project;                                                     |
|                                  | Change an existing service or project;                                                  |
|                                  | Extend existing services to new customers;                                              |
|                                  | Produce new products;                                                                   |
|                                  | Organize new activities;                                                                |
|                                  | Redesign existing products.                                                             |
| Technological process innovation | The delivery of existing services has undergone significant changes;                    |
|                                  | Introduction of new services.                                                           |
| Management innovation            | Provide new training topics;                                                            |
|                                  | Adopt a new organizational structure;                                                   |
|                                  | Implement a new recruitment system;                                                     |
|                                  | Implement a new compensation system;<br>Implement the new performance appraisal system. |

Different combinations of the four elements of participation, consistency, mission, and adaptability in the public organization culture will have different impacts on organizational innovation. There is an alternative between the elements, but beyond a certain threshold, the substitution will no longer work. For example, an organization has an advantage in adaptability, but this advantage sometimes has a path dependence. Although the organization will continuously increase its investment in organizational learning, it does not have much effect on the improvement of organizational innovation.

Inference 2: The innovation of public organizations is the result of the interaction of various cultural elements. To a certain extent, public organization cultural elements are alternative. But beyond a certain threshold, substitution will no longer play a role.

However, how to match the culture of public organizations and organizational innovation, and how to stimulate organizational innovation to the maximum effect, need to be further explored in combination with practical cases. Therefore, this research will construct the linkage impact of cultural mechanism of public organizations and organizational innovation model (as shown in Figure 1).

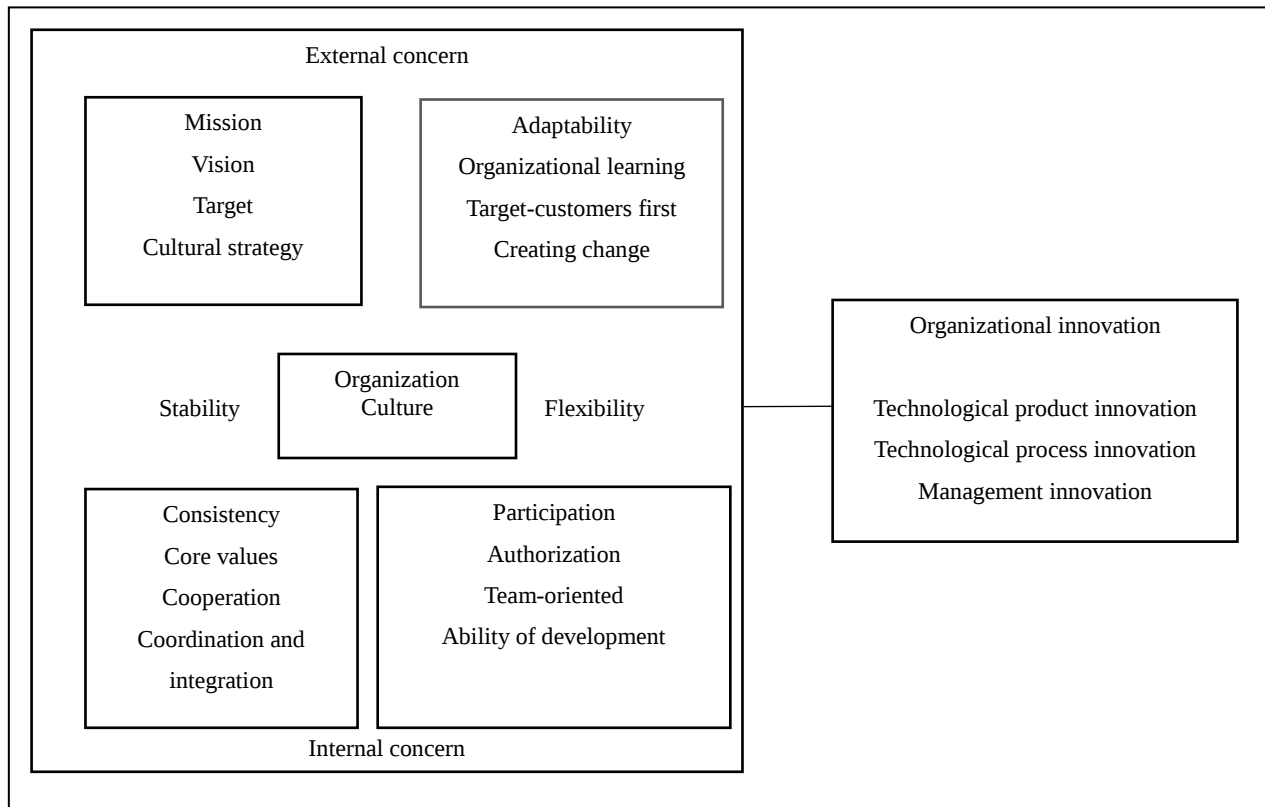


Figure 1. Public organization culture and organizational innovation model.

The influence of public organization culture on organizational innovation is not only the effect of a factor in organization culture, but the result of the interaction between external factors and internal factors of organization culture, which is significant to the stimulation of organizational innovation. But at the same time, the results of organizational innovation are accidental. For example, cultural factors with the same score may lead to the same final score of organizational innovation, but the internal index score of organizational innovation is different.

Inference 3: The final score of organizational innovation brought by the same combination of cultural factors of public organizations may have different scores in the three dimensions of technological product innovation, technological process innovation and management innovation.

In this research, the selection of public hospitals as the representative of public organizations requires fully consideration of the characteristics of the organization culture factors. As for public hospitals, the adaptability of organization culture external factors is strong. For example, doctors in public hospitals need to participate in

organizational learning to improve their skills. At the same time, there is strong participation in the internal factors of the organization culture of public hospitals. For example, doctors in public hospitals need to be encouraged to strengthen communication and cooperate with innovation in different fields (Smith, Yount, & Sorra, 2017).

Inference 4: For the promotion of organizational innovation of a specific public organization, certain conditions should be created based on its own endowment.

## Research Methods and Sample

### QCA Research Method

The QCA method is used to assign condition variables. The QCA research method was initiated by Ragin, and it can effectively explain the cause and effect of multiple concurrent conditions. It is necessary to explore the culture mechanism on the innovation of public organizations from the perspective of the combination of the conditional variables. In this article, the clear set qualitative comparison analysis (referred to as csQCA) is selected. An explanatory variable value of 1 indicates that a condition occurs or exists, while a variable value of 0 indicates that a condition does not occur or does not exist. Relationships between variables are represented by mathematical operation symbols (“\*” for “and”, “+” for “or”, “=” or arrows for “cause”, such as  $A * B \rightarrow Y$ , indicating that the co-existence of  $A$  and  $B$  will cause  $Y$  to occur).

### Case Sample

In this article, the method of random stratified sampling was used to study the 23 public hospitals in Dongcheng District, Xicheng District, Chaoyang District, Shijingshan District, Haidian District, and Tongzhou District, which met the requirements of sample size of QCA research method. The respondents were mainly physicians, nurses, technicians and hospital administrators. A total of 460 questionnaires were distributed and 378 valid questionnaires were collected, with a recovery rate of 82.2% (see Table 3). The conformity degree of items in the scale is expressed on the Likert scaling, with “1” representing “strongly disagree” and “5” representing “strongly agree”.

Table 3

*Investigation Table*

| Classification indexes       | Options            | Physicians | Nurses | Technician | Administrators | Total | Percentage |
|------------------------------|--------------------|------------|--------|------------|----------------|-------|------------|
| Gender                       | Male               | 90         | 4      | 25         | 17             | 136   | 36.0%      |
|                              | Female             | 62         | 86     | 60         | 34             | 242   | 64.0%      |
| Education background         | Master or above    | 130        | 14     | 36         | 10             | 190   | 50.3%      |
|                              | Bachelor           | 22         | 62     | 40         | 24             | 148   | 39.2%      |
|                              | College or below   | 0          | 14     | 9          | 17             | 40    | 10.5%      |
| Title                        | Primary            | 20         | 34     | 16         | 9              | 79    | 20.9%      |
|                              | Intermediate       | 40         | 36     | 37         | 26             | 139   | 36.8%      |
|                              | Senior             | 86         | 12     | 25         | 10             | 133   | 35.2%      |
|                              | No title           | 6          | 8      | 7          | 6              | 27    | 7.1%       |
| Working time in the hospital | 1-5 years          | 40         | 27     | 16         | 14             | 97    | 25.7%      |
|                              | 6-15 years         | 51         | 27     | 27         | 10             | 115   | 30.4%      |
|                              | 16-25 years        | 43         | 21     | 23         | 9              | 96    | 25.4%      |
|                              | 26-35 years        | 18         | 15     | 17         | 18             | 68    | 18.0%      |
|                              | 36 years and above | 0          | 0      | 2          | 0              | 2     | 0.5%       |

The “mean anchor point method” of QCA was used to conduct calibration of the data. The data of Likert

Table 4

*Boolean Configuration Truth Table of 23 Public Organizations*

| Case                               | Participation | Adaptability | Mission | Consistency | Organizational innovation |
|------------------------------------|---------------|--------------|---------|-------------|---------------------------|
| A19, A22, A23                      | 0             | 0            | 0       | 0           | 0                         |
| A21                                | 0             | 0            | 1       | 0           | 0                         |
| A18                                | 1             | 0            | 0       | 0           | 1                         |
| A20                                | 1             | 0            | 0       | 1           | 0                         |
| A15                                | 1             | 1            | 0       | 1           | 1                         |
| A14, A17                           | 1             | 1            | 1       | 0           | 1                         |
| A1, A2, A3, A4, A5, A6, A7, A8, A9 | 1             | 1            | 1       | 1           | 1                         |
| A10, A11, A12, A13, A16            |               |              |         |             |                           |

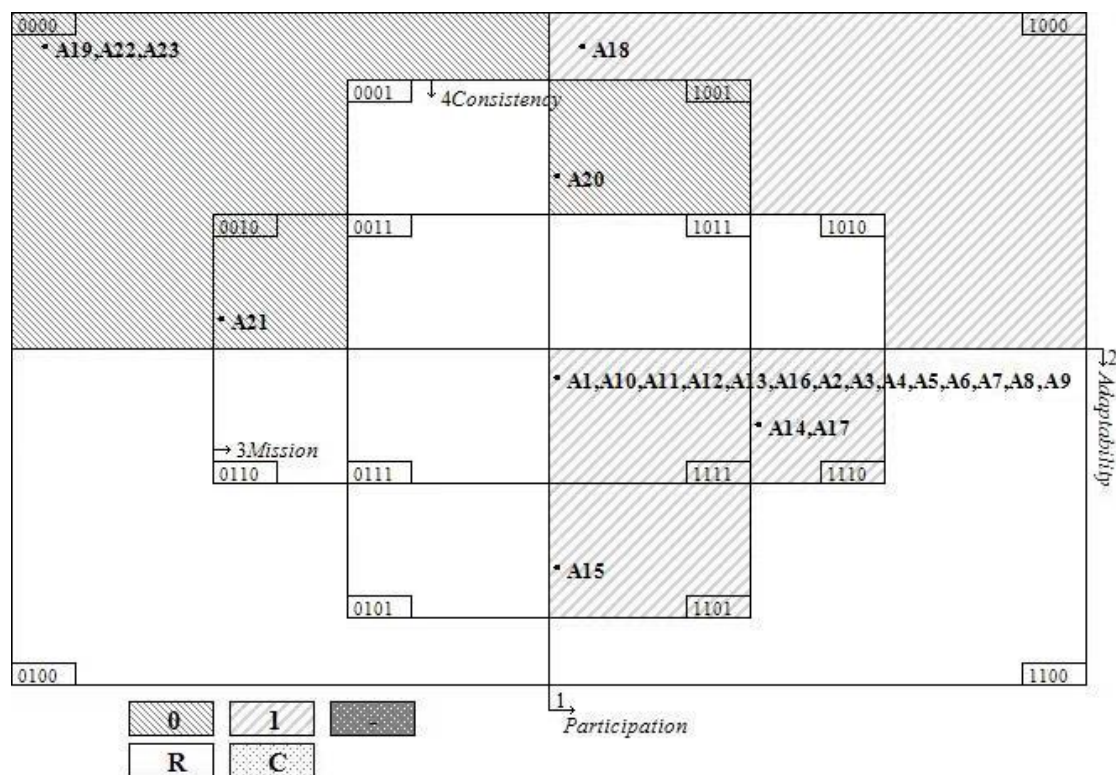


Figure 2. The Venn diagram of the 23 public organizations.

In the case of 23 public organizations in this study, there is no contradiction configuration in the Boolean configuration truth table. Therefore, it is not necessary to solve the contradiction configuration, and the process

of Boolean minimization can be directly entered. With the help of Tosmana software to minimize the configuration, the following three results of the minimization formula are obtained:

$$\text{Participation} * \text{Adaptability} * \text{Mission} + \text{Participation} *$$

$$\text{Adaptability} * \text{Consistency} \rightarrow \text{Organizational Innovation} \quad (1)$$

(1) With high participation, high adaptability and employees' strong sense of mission for public organizations (A1, A2, A3, etc.), or high participation, high adaptability and high consistency (A19, A22, etc.), public organizations are easily motivated by organizational innovation.

$$\text{Participation} * \text{Adaptation} * \text{Mission} + \text{Participation} * \text{Mission} * \text{Consistency} + \text{Adaptability} *$$

$$\text{Mission} * \text{Consistency} + \text{Participation} * \text{Adaptability} * \text{Consistency} \rightarrow \text{Organizational Innovation} \quad (2)$$

(2) High participation, high adaptability and employees' strong sense of mission to public organizations (A1, A2, A3, etc.), or high participation, employees' strong sense of mission, and high consistency occur at the same time (corresponding to A15 + A20), or high adaptability, employees' strong sense of mission, high consistency occur at the same time (A18 + A19, A22, A23), or high participation, high adaptability and high consistency occur simultaneously (A19, A22, etc.), public organizations are easily motivated by organizational innovation.

$$\text{Participation} * \text{Adaptation} * \text{Mission} + \text{Participation} * \text{Mission} * \text{Consistency} + \text{Participation} *$$

$$\text{Adaptability} * \text{Mission} + \text{Participation} * \text{Adaptability} * \text{Consistency} \rightarrow \text{Organizational Innovation} \quad (3)$$

(3) High participation, high adaptability and employees' strong sense of mission to public organizations (A1, A2, A3, etc.), or high participation, employees' strong sense of mission, and high consistency occur simultaneously (A15 + A20), or high participation, high adaptability, employees' strong sense of mission (A18 + A20), or high participation, high adaptability and high consistency occur at the same time (A19, A22, etc.), and public organizations are easily motivated by organizational innovation. Through the above analysis, it can be seen that under the mechanism of external factors and internal factors of public organization culture, public organizations are easily stimulated to organizational innovation. Based on this, the above "Inference 1" can be embodied as the following proposition.

Proposition 1: The cultural foundation of public organizational innovation is a combination of High Participation and High Adaptability.

Discuss the results of formulas (1), (2) and (3) and discuss the conditions for organizational innovation. From the results of minimizing the configuration, it is known that "Participation \* Adaptability \* Mission" and "Participation \* Adaptability \* Consistency" appear, which means "High participation \* High adaptability \* High mission" or "High participation \* High adaptability \* High consistency" is an effective condition for organizational innovation. Based on this, the above "Inference 2" can be embodied as the following proposition.

Proposition 2: "High participation \* High adaptability \* High mission" or "High participation \* High adaptability \* High consistency" is an effective condition to promote organizational innovation under the mechanism of external and internal factors of public organization culture. To a certain extent, there is substitution between the high mission and the high consistency of employees in the public organizations, but beyond a certain threshold, substitution will no longer work.

It can be seen from the results of formula (3) that high participation, high adaptability and high mission occur simultaneously (A1, A2, A3, etc.), and public organizations are easily stimulated to organizational

innovation. For example, hospitals, such as A1, A2, and A3 have the same scores of cultural factors, and the final organizational innovation scores are the same, but the scores of internal indicators of organizational innovation are different. A1 and A2 hospitals have higher management innovation scores, and A3 hospitals have higher technological process innovation scores. Based on this, the above “Inference 3” can be embodied as the following proposition.

Proposition 3: The final score of organizational innovation brought by the same combination of cultural factors of public organizations may have different scores in the three dimensions of technological product innovation, technological process innovation and management innovation.

According to the results of formula (2) and (3), “High mission \* High consistency” should be combined with the high participation or high adaptability of public organization culture to effectively promote organizational innovation. Therefore, when considering the impact on organizational innovation, it is necessary to fully consider the cultural mechanism of organization. In order to promote the innovation of public hospitals, the construction of public organization culture with high-participation should respect different opinions, provide equal opportunities for doctors with different knowledge levels and cultural backgrounds, and maximize the value of innovation. The organization should foster a relaxed and inclusive atmosphere, and encourage experts and scholars from different fields and organizations to strengthen exchanges, cooperation and innovation. To implement classified evaluation of organization, different indicators and methods should be adopted in different organizational activities, so as to avoid the phenomenon of emphasizing quantity and one-size-fits-all in evaluation.

The construction of public organization culture with high-adaptability should encourage public organization to build various forms of informal communication platforms and innovative venues. To form a harmonious doctor-patient relationship, it is necessary to properly resolve disputes, and listen carefully to patients’ opinions and suggestions (Stock & McFadden, 2017). The organization should respect the personalities of employees in public hospitals, encourage them to explore innovation, entrepreneurship and excellence. Based on this, the above “Inference 4” can be embodied as the following proposition.

Proposition 4: For the promotion of organizational innovation in public organizations, it is necessary to create certain conditions in combination with the resource endowment of their own organizations, such as strengthening the high participation and high adaptability of the organization culture in public hospitals.

### Conclusions and Implications

Based on the analysis of 23 public organizations in China, this article employs QCA to explore the mechanism of public organization culture on organizational innovation. Results showed that: Firstly, the cultural foundation of public organizational innovation is a combination of high participation and high adaptability. Secondly, “High participation \* High adaptability \* High mission” or “High participation \* High adaptability \* High consistency” is a necessary condition for organizational innovation. To a certain extent, the high mission of public organization cultural elements can replace the high consistency. But beyond a certain threshold, the substitution will no longer work. Thirdly, the final score of organizational innovation brought by the same public organization cultural factor combination score may be the same, but the internal indicators of organizational innovation are different. Therefore, the cultural construction of public organizations should make full use of the internal and external synergy of organization culture, and strive to realize the transformation from focusing on optimizing the organizational environment to establishing and perfecting the

innovation incentive policy system and creating an innovative cultural environment for the whole society.

Firstly, the high participation of the public organization culture should be managed from a systemic perspective, recognizing the interrelatedness of the various parts of the participatory dimension (Moldogaziev & Resh, 2016). Managers of the public organization should take the role of intensifier of the organization culture, and gradually improve the secondary joints and strengthening mechanisms in the participatory dimension of public organization culture. Public organizations should effectively improve the innovation enthusiasm of employees, and form a benign institutional environment that stimulates their enthusiasm for innovation, encourages their innovative behaviors and improves their returns on innovation (Walker, Damanpour, & Devece, 2011). Public organizations should be encouraged to build various forms of informal communication platforms and innovation venues, such as salons, cafes, tea rooms, breakfast meetings and innovation houses, so as to provide a place for employees to freely communicate and share their ideas, and to create an atmosphere in which public organizations can explore communication and contention freely. At the same time, it is critical for managers to understand the adaptability of their organization culture and seek to develop practices that support innovation. In public organizations, training can be strengthened to find mentors with different seniority and different fields for new employees, and encourage employees with intermediate and senior titles to accelerate their identification with the organization culture through relatively fixed mentoring relationships. The public organization creates change and transforms the thinking mode and concept of employees, so that employees can identify and internalize the organization culture. The managers of public organizations promote innovations through organization culture, helping public organizations effectively respond to changes in the external environment.

In addition, this research is conducive for public organizations to clarify the core values of public organizational innovation, and can provide theoretical basis and support for the management personnel of public organizations. It is recommended to strengthen the research and formulation of the external concern and internal concern policies of the public organization's innovation culture, to form the value orientation to encourage innovation, and to establish the cultural mechanism to encourage innovation (Kaplan, 2001; Kane, Hinnant, & Day, 2017). From the two aspects of external and internal attention, this research will explore the establishment of an evaluation system of innovation culture of public organization, further enrich the connotation of the innovation evaluation system of public organizations, refine the implementation rules and incentive measures, and enhance its operability of the innovation evaluation system. On the other hand, it is beneficial for public organizations to clarify their own characteristics of organization culture and make more targeted decisions from the perspective of organization culture and organizational innovation (Amirkhanyan, Meier, O'Toole Jr., Dakhwe, & Janzen, 2018). Public organizations are encouraged to actively use the collaborative organization culture mechanism to keep the temperature of the innovation, to guide the innovation behavior and realize innovation resource allocation efficiency, and to promote the formation of super-flow mechanism of production factors in the cluster (Dal Molin & Masella, 2016; Grimmelikhuijsen & Feeney, 2017).

Thirdly, according to the characteristics of different innovation subjects, different industries and different fields, public organizations should establish a comprehensive evaluation and incentive mechanism that pays equal attention to both process and result, so as to form a situation where everyone is innovating and everywhere is innovating, and fully mobilize and stimulate the creativity of public organizations (Cornforth, Hayes, & Vangen, 2015). For the promotion of the innovation of specific public organizations, it is necessary to create certain conditions based on their own organizational resource endowment, such as strengthening the

construction of high participation and high adaption of organization culture in public organizations.

Furthermore, the construction of the innovative cultural environment of public organizations is a systematic project, which requires the general attention and long-term joint efforts of the government, universities, research institutions, enterprises, scientific communities, media and the public. Only by drawing on the strengths of various organizations, and pursuing reform and innovation, can public organizations gradually form an effective and dynamic cultural environment for innovation, thus laying a solid social foundation for building an innovative country and a world-class technology power.

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### Reference

- Allik, J., & Realo, A. (2004). Individualism-Collectivism and Social Capital. *Journal of Cross-Cultural Psychology*, 35, 29-49.
- Amirkhanyan, A. A., Meier, K. J., O'Toole Jr., L. J., Dakhwe, M. A., & Janzen, S. (2018). Management and Performance in US Nursing Homes. *Journal of Public Administration Research and Theory*, 28(1), 33-49.
- Ansell, C., & Gash, A. (2018). Collaborative Platforms as a Governance Strategy. *Journal of Public Administration Research and Theory*, 28(1), 16-32.
- Ariely, D., Bracha, A., & Meier, S. (2009). Doing Good or Doing Well? Image Motivation and Monetary Incentives in Behaving Prosocially. *The American Economic Review*, 99, 544-555.
- Burt, R. S. (2004). Structural Holes and Good Ideas. *American Journal of Sociology*, 110(2), 349-399.
- Cornforth, C., Hayes, J. P., & Vangen, S. (2015). Nonprofit-Public Collaborations: Understanding Governance Dynamics. *Nonprofit and Voluntary Sector Quarterly*, 44(4), 775-795.
- Coule, T. M. (2015). Nonprofit Governance and Accountability: Broadening the Theoretical Perspective. *Nonprofit and Voluntary Sector Quarterly*, 44(1), 75-97.
- Curtis, J. E., Grabb, E. G., & Baer, D. E. (1992). Voluntary Association Membership in Fifteen Countries: A Comparative Analysis. *American Sociological Review*, 57, 139-152.
- Dal Molin, M., & Masella, C. (2016). Networks in Policy, Management and Governance: A Comparative Literature Review to Stimulate Future Research Avenues. *Journal of Management and Governance*, 20(4), 823-849.
- Damanpour, F., & Schneider, M. (2009). Characteristics of Innovation and Innovation Adoption in Public Organizations: Assessing the Role of Managers. *Journal of Public Administration Research and Theory*, 19(3), 495-522.
- Dy, S. M., Garg, P., & Nyberg, D., Dawson, P. B., Pronovost, P. J., Morlock, L., Rubin, H., Wu, A. W. (2005). Critical Pathway Effectiveness: Assessing the Impact of Patient, Hospital Care, and Pathway Characteristics Using Qualitative Comparative Analysis. *Health Services Research*, 40(2), 499-516.
- Fock, H., Hui, M. K., Au, K., & Bond, M. H. (2013). Moderation Effects of Power Distance on the Relationship Between Types of Empowerment and Employee Satisfaction. *Journal of Cross-Cultural Psychology*, 44, 281-298.
- Galaskiewicz J., Bielefeld W., & Dowell M. (2006). Networks and Organizational Growth: A Study of Community-Based Nonprofits. *Administrative Science Quarterly*, 51, 337-380.
- Gelfand, M. J., Erez, M., & Aycan, Z. (2007). Cross-cultural Organizational Behavior. *Annual Review of Psychology*, 58, 1-35.
- Granovetter, M. S. (1983). The Strength of Weak Ties: A Network Theory Revisited. *Sociological Theory*, 1, 201-233.
- Grimmelikhuisen, S. G., & Feeney, M. K. (2017). Developing and Testing an Integrative Framework for Open Government

- Adoption in Local Governments. *Public Administration Review*, 77(4), 579-590.
- Grønbjerg, K. A., & Paarlberg, L. (2001). Community Variations in the Size and Scope of the Nonprofit Sector: Theory and Preliminary Findings. *Nonprofit and Voluntary Sector Quarterly*, 30, 684-706.
- Guo, C., & Saxton, G. D. (2018). Speaking and Being Heard: How Nonprofit Advocacy Organizations Gain Attention on Social Media. *Nonprofit and Voluntary Sector Quarterly*, 47(1), 5-26.
- Hofstede, G. (1990). Measuring Organizational Cultures: A Qualitative and Quantitative Study Across Twenty Cases. *Administrative Science Quarterly*, 35(2), 286-316.
- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations Across Nations*. Thousand Oaks, CA: SAGE.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and Organizations: Software of the Mind* (3rd Ed.). New York, NY: McGraw-Hill.
- Jaskyte K., & Dressler W. (2005). Organizational Culture and Innovation in Non-Profit Human Service Organizations. *Administration in Social Work*, 29(2), 23-41.
- Kane, H., Hinnant, L., & Day, K. (2017). Pathways to Program Success: A Qualitative Comparative Analysis (QCA) of Communities Putting Prevention to Work Case Study Programs. *Journal of Public Health Management and Practice*, 23(2), 104-111.
- Kaplan, R. S. (2001). Strategic Performance Measurement and Management in Nonprofit Organizations. *Nonprofit Management & Leadership*, 11, 353-370.
- Kimberly, J. R. (1981). *Managerial Innovation: Handbook of Organizational Design*. New York, NY: Oxford University Press.
- Ko, M., Murphy, J., & Bindman, A. B. (2015). Integrating Health Care for the Most Vulnerable: Bridging the Differences in Organizational Cultures Between US Hospitals and Community Health Centers. *American Journal of Public Health*, 105(5), 676-679.
- Krawczyk, K., Wooddell, M., & Dias, A. (2017). Charitable Giving in Arts and Culture Nonprofits: The Impact of Organizational Characteristics. *Nonprofit and Voluntary Sector Quarterly*, 46, 817-836.
- Liao-Troth, M. A. (2005). Are They Here for The Long Haul? The Effects of Functional Motives and Personality Factors on The Psychological Contracts of Volunteers. *Nonprofit and Voluntary Sector Quarterly*, 34(4), 510-530.
- Lindsay, C., Findlay, P., McQuarrie, J., Bennie, M., Corcoran, E. D., & Van Der Meer, R. (2018). Collaborative Innovation, New Technologies, and Work Redesign. *Public Administration Review*, 78(2), 251-260.
- Mahler, J. (1997). Influences of Organizational Culture on Learning in Public Agencies. *Journal of Public Administration Research and Theory*, 7(4), 519-540.
- Moldogaziev, T. T., & Resh, W. G. (2016). A Systems Theory Approach to Innovation Implementation: Why Organizational Location Matters. *Journal of Public Administration Research and Theory*, 26(4), 677-692.
- Nicholson-Crotty, S., Nicholson-Crotty, J., & Fernandez, S. (2017). Performance and Management in The Public Sector: Testing a Model of Relative Risk Aversion. *Public Administration Review*, 77(4), 603-614.
- North, D. C. (2013). Institutions, Ideology, and Economic Performance. *Cato Journal*, 11(3), 477-496.
- Onder, M. (2011). A Preliminary Cross-National Test of Competing Theories of Nonprofits: Does Culture Matter? *International Review of Public Administration*, 16, 71-90.
- Oyemomi, O., Liu, S. F., Neaga, I., & Alkhurairi, A. (2018). How Cultural Impact on Knowledge Sharing Contributes to Organizational Performance: Using the fsQCA Approach. *Journal of Business Research*, 94(1), 313-319.
- Park, S. M., Park, H. J., & Ryu, E. Y. (2013). Determinants of Positive Job Attitude and Behavior in the Asian Work Context: Evidence from Korean Central Government Agencies. *Public Management Review*, 15, 1154-1184.
- Prentice, C. R. (2016). Understanding Nonprofit Financial Health: Exploring the Effects of Organizational and Environmental Variables. *Nonprofit and Voluntary Sector Quarterly*, 45(5), 888-909.
- Provan, K. G., & Lemaire, R. H. (2012). Core Concepts and Key Ideas for Understanding Public Sector Organizational Networks: Using Research to Inform Scholarship and Practice. *Public Administration Review*, 72(5), 638-648.
- Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. New York, NY: Simon & Schuster.
- Quinn, R. E., and Spreitzer, G. M. (1991). The Psychometrics of the Competing Values Culture Instrument and an Analysis of the Impact of Organizational Culture on Quality of Life. In Woodiman, R. W. and Pasmore, W. A. (Eds.), *Research in Organizational Change and Development* (pp. 115-142). Greenwich: JAI Press.
- Schaufeli, W. B., & Taris, T. W. (2014). A Critical Review of the Job Demands-Resources Model: Implications for Improving Work and Health. In *Bridging Occupational, Organizational and Public Health: A Transdisciplinary Approach* (pp. 43-68). The Netherlands: Springer.

- Schein, E. H. (1996). Culture: The Missing Concept in Organization Studies. *Administrative Science Quarterly*, 41, 229-240.
- Smith, S. A., Yount, N., & Sorra, J. (2017). Exploring Relationships Between Hospital Patient Safety Culture and Consumer Reports Safety Scores. *BMC Health Services Research*, 17, 1-9.
- Stock, G. N., & McFadden, K. L. (2017). Improving Service Operations: Linking Safety Culture to Hospital Performance. *Journal of Service Management*, 28(1), 57-84.
- Walker, R. M. (2008). An Empirical Evaluation of Innovation Types and Organizational and Environmental Characteristics: Towards a Configuration Framework. *Journal of Public Administration Research and Theory*, 18(4), 591-615.
- Walker, R. M., Damanpour, F., & Devece, C. A. (2011). Management Innovation and Organizational Performance: The Mediating Effect of Performance Management. *Journal of Public Administration Research and Theory*, 21(2), 367-386.
- Zafer, A. A., & Pınaro, A. (2014). Organizational Culture Types and Their Effects on Organizational Performance in Turkish Hospitals. *Emerging Markets Journal*, 3, 18-31.