



# The Relationship between Organizational Culture and Government Performance-Based on Denison Model

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#### **Abstract**

In this paper, based on Denison model, we research the relationship between organizational culture and government performance by empirical studies, through conducting questionnaires in six-governmental organizations of Shaanxi and Shanxi, and using factor analysis and correlation analysis. The results showed that the participatory culture and performance of internal processes have significantly positive correlation, the consistency cultural and financial performance have significantly positive correlation, the adaptability culture and performance of learning growth have significantly positive correlation, and mission culture and performance of customer dimension as well.

Keywords: Denison model balanced scorecard, Organizational culture, Government performance

The huge role of culture in organizational performance has attracted so much concern that the contemporary theory and practice of management have also entered the era of cultural management. With people's vision is no longer limited to rigid management elements, culture, which as the core elements of soft management, become increasingly important to researchers and managers. Peters (1982) summed up the cultural features of some successful enterprises, and formed a set of "excellent" business theory. Barney (1991) believed that organizational culture as an important intangible corporate resources, could bring about lasting competitive advantage. Kotter and Heskett (1992) in "corporate culture and business performance", which studied corporate culture and business performance of 72 enterprises from 22 industries of United States between 1987 and 1991, pointed out that corporate culture have far-reaching effect on company's long-term business performance, and may be the key factor in the rise and fall. Denison (1995) studied organizational culture based on survey, and found that staffs' participation will bring in excellent financial performance. To date, there are too many studies in the relationship between organizational culture and corporate performance, however, the empirical research on the relationship between organizational culture and government performance is very few. This article will explore the impact of four cultural characteristics on government performance based on Denison model, so as to provide some references for the government to improve its organizational performance.

# 1. Literature review

The concept of organizational culture was first proposed by Pettigrew (1979) in paper named *Research on Organizational Culture* which was published in the Administrative Science Quarterly, and later, different scholars studied the dimensions, levels and characteristics of organizational culture from different angles. In the early study, some people, such as Hofstede, divided culture into four dimensions: Individualism vs Collectivism, Power Distance, Uncertainty Avoidance and Masculinity vs Femininity. Schein (1992) distinguished three levels of culture: explicit behavior and signs, shared values and implied basic hypothesis. Denision (1995) grouped organizational culture into four characteristics: participatory, consistency, adaptability and mission.

Since the 1980's, people in academia and industry generally thought that the organizational culture have a significant impact on the organizational performance. Government performance, well known as "Public Productivity", "National Productivity", "Government Performance" and so on in the West, refers to the behavior, which is in the process of achieving their organizational goals, and its absolute level and relative level of output in specific situations (WU

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Jian-nan, Yan Bo, 2004). Kaplan and Norton (1992) made the idea become a reality, and put forward Balanced Scorecard, which integrated different stakeholders into a set of evaluation system. The Balanced Scorecard has already applied to the Government Evaluation System (WU Jian-nan, GUO Wen-jing, 2004).

## 2. Research hypotheses

The theory of organizational culture is so rich, and we selected organizational culture questionnaires from adapted Denison organizational culture model, based on reference to a large number of literatures of organizational culture from domestic and abroad. In the questionnaires, description of attribute value is divided into three dimensions, and each dimension is measured by three issues. The measure of the governmental performance used the Balanced Scorecard. The Balanced Scorecard is composed of four parts: the area of finance, customer, internal operation and learning growth. Based on the successful experience that Balanced Scorecard was adopted in foreign countries concerning performance management, this study refers to the framework made by Professor WU Jian-nan (2004).

# 2.1 Participatory culture and internal processes of organization

Participatory culture emphasis on the input and participation of members, and organizational culture which has high input is of effective. Based on high input, organizational members would highly concern about organizational immediate interests and increase the cohesion, so they can easily reach agreement in existing problems. Organizational members of government provide products or services for Public with high input, so the evaluation is high level of civil servants, and high efficiency of the government. For this to make the following assumptions:

H1: participatory culture and internal processes are significantly correlated.

## 2.2 Consistency culture and financial dimension

Consistency culture, in fact, is a theory of strong culture. Its main view is widely shared beliefs and values, helping organizational members to reach consensus and take concerted action, so as to have a positive impact on the performance. Such a high degree of unity government can save manpower, materials, financial and other resources. When governmental members can easily reach consensus in certain matter, the cost of communication will be significantly reduced and efficiency of decision-making will be improved, bringing government more budget surplus. For this to make the following assumptions:

H2: Consistency culture and financial dimension are significantly correlated.

# 2.3 Adaptability culture and learning growth

Adaptability culture refers to the culture which quickly responds to a variety of signal from external environment of organizations. Adaptability organizations can timely adjust strategic objectives in accordance with changes of external environment, in order to enable organizations to achieve better development. The purpose of governmental organizational learning is to enable members to keep on learning new knowledge, accessing to new technologies and adapting changes of external environment, or to enable a department to play a leading role. For this to make the following assumptions:

H3: Adaptability cultural and learning growth are significantly correlated.

#### 2.4 Mission culture and customer factors

Mission culture is used to judge whether organizations are only focus on immediate interests, or focus on development of the strategic action plan of system. For local governments, the fundamental goal is to serve local residents, so that people can live and work in peace. Only when local governments see a variety of policy put forward by central government as mission, the people are the real beneficiaries. For this to make the following assumptions:

H4: Mission culture and customer factors are significantly correlated.

## **Insert Figure 1 Here**

#### 3. Empirical analysis

#### 3.1 Variables measured

The design of the organizational culture questionnaires reference to some successful design forms of organizational culture, which from both home and abroad. Denison organizational culture model is more comprehensive and detailed than other models in revealing content of organizational culture, and its OCQ scale focuses on the use in management practices. So this paper chose Denison organizational culture model and made brief changes, in order to make the design of questionnaire to be concise and easy to understand.

Scale the performance of governmental organizations is in the light of governmental performance assessment framework, which is based on the Balanced Scorecard, made by Professor Wu Jian-nan. Because of its characteristics, Balanced Scorecard is used in governmental department frequently. First of all, the Balanced Scorecard is based on a balance concept, and emphasizes that the level of organizational performance should pay more attention to

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organizational capacity of sustainable development and potential value creation. Second, the Balanced Scorecard put development at the center of all. It changes strategic objectives into indicators of performance evaluation, and then these indicators will be linked to their members to improve organizational performance, through specific organizational acts. Finally, the Balanced Scorecard provides organizational performance evaluation with two different ways, which are qualitative analysis and quantitative analysis. The local governmental performance evaluation is the comprehensive use of the qualitative and quantitative assessment. Introducing the Balanced Scorecard to the field of non-profit organizations and government is still in its formative stage. In this paper, based on the characteristics of Chinese government, we removed a number of objective performance indicators and that were not related to the target of the study, and then prepared organizational performance questionnaires.

#### 3.2 Sample investment

## 3.2.1 Sample selection

In line with the principles of convenience sampling, we selected nine-governmental organizations from Shaanxi and Shanxi, including Development and Reform Commission of a city, Investigation Agency of a city, village committee of a city, Public Security Bureau of a city, Agricultural Council of a city, Investigation Agency of a county. These governmental organizations cover governmental departments from different areas, different sizes and different functions, so has wide representation.

#### 3.2.2 Methods of investigation.

To issue in government departments at the scene, to answer questions on-site, and then recycle on-site.

#### 3.2.3 Sample recovery

A total of 160 questionnaires were issued, then deleted 18 that are default, half-heartedly or similar. Eventually, the number of valid questionnaires we obtained is 142, and the questionnaires' efficiency is 88.75%.

## 3.3 Variables basic information

#### 3.3.1 Reliability analysis

In this paper, we adopted the consistency coefficient  $\alpha$  to test the reliability of the questionnaires. We obtain the following results: The reliability coefficient of organizational culture questionnaires is 0.9174, and reliability coefficient of Standardization is 0.9182. The reliability coefficient of the four dimensions (participatory, consistency, adaptability and mission) are 0.7253, 0.7526, 0.7662 and 0.7731. After the deletion of corresponding items, variance of questionnaire itself, average and Alpha value are evenly distributed, indicating that Organizational culture questionnaires have good reliability. The reliability coefficient of performance questionnaire is 0.7427, and reliability coefficient of standardization is 0.7427. After the deletion of the corresponding items, variance of questionnaire itself, average and Alpha value are evenly distributed, indicating that performance questionnaires have good reliability.

## 3.3.2 Factor analysis

In this study, the organizational culture questionnaires were built on Denison organizational culture model, and divided organizational culture into four dimensions. As a result, the factor analysis of organizational culture is divided into four levels.

#### 3.3.2.1 Factor analysis of participatory culture

Factor analysis of participatory culture is divided into nine projects. By the Bartlett Test, the value is 320.722, a significant level of P is 0.000, and the KMO value is 0.778, indicating that factor analysis is suitable. In factor analysis, we use principal component analysis and extract two factors whose characteristic value is greater than 1, in according to Kaiser's criteria. The largest rotation of variance is convergent after 24th iteration, and the accumulated contribution rate of variance is 51.226%. Two factors are named as team leads and developmental capabilities. The specific details are shown in Table 1.

#### 3.3.2.2 Factor analysis of consistency culture

Factor analysis of consistency culture is divided into nine projects. By the Bartlett Test, the value is 266.957, a significant level of P is 0.000, and the KMO value is 0.806, indicating that factor analysis is suitable. We use principal component analysis in factor analysis, and extract two factors whose characteristic value is greater than 1, in according to Kaiser's criteria. The largest rotation of variance is convergent after 24th iteration, and the accumulated contribution rate of variance is 49.652%. Two factors are named as core values and cooperation-coordination. The specific details are shown in Table 2.

## 3.3.2.3 Factor analysis of adaptability culture

Factor analysis of adaptability culture is divided into nine projects. By the Bartlett Test, the value is 317.392, a significant level of P is 0.000, and the KMO value is 0.808, indicating that factor analysis is suitable. We use principal

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component analysis in factor analysis, and extract two factors whose characteristic value is greater than 1, in according to Kaiser's criteria. The largest rotation of variance is convergent after 24th iteration, and the accumulated contribution rate of variance is 52.432%. Two factors are named as organizational learning and innovation. The specific details are shown in Table 3.

## 3.3.2.4 Factor analysis of mission culture

Factor analysis of mission culture is divided into nine projects. By the Bartlett Test, the value is 284.580, a significant level of P is 0.000, and the KMO value is 0.837, indicating that factor analysis is suitable. We use principal component analysis in factor analysis, and extract two factors whose characteristic value is greater than 1, in according to Kaiser's criteria. The largest rotation of variance is convergent after 24th iteration, and the accumulated contribution rate of variance is 49.971%. Two factors are named as predictability and targeted. The specific details are shown in Table 4.

#### Insert Table 1, Table 2, Table 3 and Table 4 Here

#### 3.3.3 Correlation analysis

As can be seen from Table 5, the correlation coefficient between participatory culture and internal processes is 0.822, indicating that the participatory culture and internal processes is significantly positive correlation. Organizational members of government provide products or services for Public with high input, so the evaluation is high level of civil servants, and high efficiency of the government. The correlation coefficient between consistency cultural and financial dimension is 0.796, indicating that the consistency cultural and financial dimension is significantly positive correlation. When governmental members can easily reach consensus in certain matter, the cost of communication will be significantly reduced and efficiency of decision-making will be improved, bringing government more budget surplus. The correlation coefficient between adaptability culture and learning growth is 0.896, indicating that the adaptability culture and learning growth is significantly positive correlation. The purpose of governmental organizational learning is to better adapt to the environment and accelerate development. The correlation coefficient between mission culture and customer factors is 0.781, indicating that the mission culture and customer factors is significantly positive correlation. When local governments see a variety of policy put forward by the central government as mission, the mission of serving people can be achieved. The four assumptions mentioned in this article are verified by test results.

#### **Insert Table 5 Here**

#### 4. Conclusion

In this paper, we collected the information—the relationship between various characteristic organizational culture and government performance of six government departments from Shaanxi and Shanxi, and then analysis, test and explain the impact of various characteristic organizational culture on government performance. The study found that the participatory culture and internal processes are significantly correlated, the consistency cultural and financial performance are significantly correlated, the adaptability culture and learning growth are significantly correlated, and mission culture and customer factors as well. The governmental cultural construction should not only concern about internal stability and control, but also the external changes and flexible. The government should not only pay attention to promote the continuous growth of members, but also to the satisfaction of the majority of the people.

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Table 1. Rotated factor matrix of participatory culture Rotated Component Matrix (a)

	Component				
	1	2			
(4)	.695	.210			
(6)	.679	.079			
(5)	.662	.213			
(3)	.568	.366			
(2)	.250	.765			
(1)	.153	.748			
(8)	.372	.670			
(7)	.443	.501			
(9)	.425	478			

Table 2. Rotated factor matrix of consistency culture Rotated Component Matrix(a)

	Component				
	1	2			
(18)	.714	.087			
(12)	.703	.210			
(13)	.688	.123			
(17)	.648	220			
(10)	.554	.226			
(15)	.553	.345			
(11)	.543	.354			
(14)	045	.831			
(16)	.308	.681			

Table 3. Rotated factor matrix of adaptability culture Rotated Component Matrix(a)

	Component				
	1	2			
(26)	.811	024			
(27)	.725	.067			
(22)	.700	.298			
(19)	.657	.189			
(23)	.593	.477			
(25)	.549	036			
(20)	082	.754			
(21)	.114	.738			
(24)	.468	.502			

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Table 4. rotated factor matrix of mission culture Rotated Component Matrix(a)

	Component				
	1	2			
(34)	.698	.371			
(36)	.693	.014			
(35)	.683	.052			
(32)	.539	.301			
(28)	.525	.420			
(29)	127	.826			
(33)	.302	.672			
(30)	.417	.521			
(31)	.426	.468			

Table 5. Correlation analysis about organizational culture and Government Performance

	Participatory	Consistency	Adaptability	Mission	Internal process	Financial dimension	Learning growth	Customer factor
Participatory	1	.896**	.917**	.848**	.822**	.579**	.787**	041**
Consistency	.896**	1	.870**	.842**	.680**	.796**	.212**	.633**
Adaptability	.917**	.870**	1	.851**	083**	.831**	.896**	.680**
Mission	.848**	.842**	.851**	1	.116**	013**	.007**	.781**
Internal processes	.822**	.680**	083**	.116**	1	.046**	.057**	009**
Financial dimension	.579**	.796**	.831**	013**	.046**	1	.084**	021**
Learning growth	.787*	.212**	.896**	.007**	.057**	.084**	1	154**
Customer factors	.775**	.633**	041**	.781**	009**	021**	154**	1

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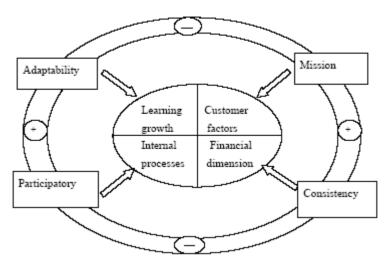


Figure 1. Research Framework Chart