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## Organization factors influence on organizational improvisation - building and testing a theoretical model

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### ABSTRACT

Through literature review, this article constructs a theoretical model of organization factors influence on organizational improvisation. we make use of the structure equation modeling for empirical research, and the results show that, the behavior of the leader has a positive impact on organizational improvisation; Members traits also have a positive impact on organizational improvisation, but members' memory would inspire and impede the organizational improvisation; The organizational structure has a positive impact on organizational improvisation, there have many factors which cause organizational improvisation. At the same time, it has a positive impact to the organizational innovation.

### KEYWORDS

Leader; Organizational innovation; Organizational improvisation; Structural equation model.



## INTRODUCTION

To research organizational creativity from the perspective of improvisation behavior, began in the JAZZ orchestra riffs and theater performances improvisation as a metaphor. Later scholars gradually applied the improvisation to the field of organization. Eisenhardt pointed out that expanding improvisational skills can help organizations to improve the ability to learn and adapt quickly to changes in the external environment, effectively promoting organizational innovation<sup>[1]</sup>.

In previous studies, although scholars have given demand of organization improvisational ability and organizational flexibility considerable attention, but in fact the organization improvisation has also been affected by some limiting factors. Understand the factors affecting organizational improvisation make improvisation process become more clearer. However, in this field of research is still a lack of empirical evidence that what affects the organization and execution of improvised start? How the relationship between Organizational improvisation and organizational innovation? In additional, the research about innovation of organization management focused on individual employees, but lack of think on the creating ability of organizational levels<sup>[2]</sup>.

## A ORGANIZATIONAL IMPROVISATION LITERATURE REVIEW WITH THEORETICAL MODELS

### Organization improvisation concept

Improvisation terms the action without prior agreement, without prior planning<sup>[3]</sup>. Moorman and Miner (1998) pointed out that organizational improvisation is collective, it contains the improvisation of groups, departments or entire organizations<sup>[4]</sup>. Vera and Crossan (2004) pointed out that the improvisational can be shaped as a concept consists of two parts: the spontaneity and creativity<sup>[5]</sup>. The first part, spontaneous, it contains the time aspect, when time is a scarce resource, improvisation is an unconscious and spontaneous process without plans or expectations. The second part, creativity, improvisation behavior is a kind of finding for innovative and satisfactory results. But have to admit, a creative process is not often lead to a creative outcome.

### Influencing factors of organization improvisation

Identifying key factors in the improvisation process of organizations, and studying the direction of influence and degree of influence and answers the relationship between these factors will promote the occurrence of organizational improvisation, thus contributing to improving organizational innovation capability, solving the problems in the process of organizational innovation, completing the innovation task.

Overall, the organization improvisation influencing factors involves: (1) leadership, research scholars' debates mainly focused on leadership skills, leadership willingness and leadership style. (2) the qualities of members, particularly for the influence owned by the skills level and creativity of members, on improvisation ability. But members customary memory is a two-way, and no accurately determine its effect is positive or negative. (3) organizational structure, mainly from the size of the organization, social structure and experimental culture (high trial-and-error culture) validate their influence on the occurrence probability of organizational improvisation at three levels.

### Research assumptions proposed

#### Leadership and organizational improvisation

Scholars tend to define a successful leader in this category: when environment requires some action, they can change the organization<sup>[6]</sup>. However, in the face of the unknowable, unpredictable environment, the essence of the meaning of leadership has different attributes, scholars should get more attention. The face of uncertainty, leaders are more concerned about incentives, improvise, flexibility, reliability and learning. Different leadership styles have different influence on organization.

Chemers (1997) leadership is an important factor to influence the extent and effectiveness of organizational improvisation in unexpected and unplanned according to the case, must appear an insight into the environment in order to influence the leadership, in particular, when it must take action<sup>[7]</sup>. Although different leadership on organizational improvisation influencing factors of the same, there are three important and clear premise: First, a variety of activities in the organization, the leadership will is especially important. Facts have proved that the attitude of the leadership of something how will directly affect the direction and degree of success of the development of the thing. Secondly, the outstanding leader in multi-has a strong ability to solve complex problems. Chemers (1997) definition of leadership for a person to complete a common task to seek others to support and help of the social impact of the process<sup>[7]</sup>. Ott, Parkes et al. (1989) When organizations face complex problems and uncertainties, the leader in capacity more performance by the trust and loyalty of subordinates, motivate subordinates work with passionate, the use of organizational efforts, knowledge and material resources to complete the mission<sup>[8]</sup>. However, with the organization improvisational feel differently, who encourages risk-taking, high fault tolerance, leadership style can be more receptive to new ideas excited organizational improvisation. The reason is that the study did not use extensive attention of scholars theory of leadership styles (transactional leadership, contingency leadership, democracy, authoritarian, etc.) has the type of leadership style to the existence of multiple factors (including inhibitory factors and facilitating factors) the impact of organizational improvisation. in order to simplify pattern and increase interior validity, the literature take encourage adventure, high fault-tolerant, receptive to new ideas as the basis of measurement of leadership style.

Based on the above analysis, we made the following assumptions:

Hypothesis 1: leadership willingness and the extent and effectiveness of organizational improvisation is positively correlate.

Hypothesis 2 : leadership and the degree of organizational improvisation and utility are positively related

Hypothesis 3: Leadership style (encourage risk-taking, high fault tolerance, accept new ideas) and the degree of utility has positive correlation with the organizational improvisation.

### **Members of the characteristics and organizational improvisation**

Member characteristics have an important, direct impact on the organization of improvisation activities, work skill level for each member has decided it in from organizational routines impromptu activities<sup>[7]</sup>. This paper thinks that, if an employee has strong skills, able to provide rich resources and mental resources for improvisation skills, so he improvised greater possibility of. Especially when a team is impromptu, improvisation team has been the technical level of the staff of the least contain<sup>[8]</sup>. The more information the organization to obtain the fact, the degree of organization improvisation broader scope<sup>[9]</sup>. Cattell and Butcher (1968)<sup>[10]</sup>, the main research on individual differences found creative individuals than ordinary people more confident, aggressive, self affirmation, not by society or the opinions of others bound, sensitive, trust your intuition. Therefore, these findings help to understand the creativity, there are individual differences.

Based on the above analysis, this paper put forward the following hypothesis:

Hypothesis4: Skill level and organizational members of the impromptu and utility is positively related to.

Hypothesis5: Members of the organization of creativity and organizational improvisation and the degree of utility is positively related to.

Hypothesis6: Members of the conventional memory and organizational improvisation and the degree of utility is positively related to.

### **The organizational structure and organizational improvisation**

The organizational structure of organization improvisation is established on the basis of experimental cultures, social structure and organization scale, in order to control the process and result of organizational improvisation. Vera and Crossan (2004)<sup>[5]</sup> pointed out, improvisation process full of uncertainties, an experimental culture can give organizations provide resources to support the

autonomous activity of novel. On the contrary, if the impromptu occurs in a non experimental culture, it may be suspended from the organization rules, impromptu error may be punished rather than accept and continue.

The social structure mainly refers to the relationship between people. For example, the name of the leadership, trust relationship among members of the organization, respect and emotional support<sup>[11]</sup>. Study on the diffusion of innovation points out, spread by social relations model constraints, thus affecting the information and evaluation of innovation diffusion of throughout the organization<sup>[12]</sup>. Based on the above analysis, this paper put forward the following hypothesis:

Hypothesis7:Experimental cultures and organizational improvisation and the degree of utility is positively related.

Hypothesis8:The organization of social structure and organizational improvisation and the degree of utility is positively related.

Hypothesis9:A negative correlation between organizational size and organizational improvisation and the degree of utility.

### The relationship between organizational improvisation and organizational innovation

In the success of the product, the innovation is becoming the main factor. This innovation can be defined as "any new facilities, the organization system, process, problem, project, select the<sup>[13]</sup> product or service". According to the Eisenhardt<sup>[14]</sup>, At the same time, Poolton, Ismail et al. (2000)<sup>[15]</sup> to define the key part of the new development of improvisation in innovation in the field of. Organizational improvisation has been considered to be an optional organizational innovation mode, an important reason for the development of the innovation mode is due to the change of competitive environment<sup>[16]</sup>. Based on the above discussion, this paper put forward the following hypothesis:

Hypothesis10:Organizational improvisation and the degree of utility and organization innovation is positively related to.

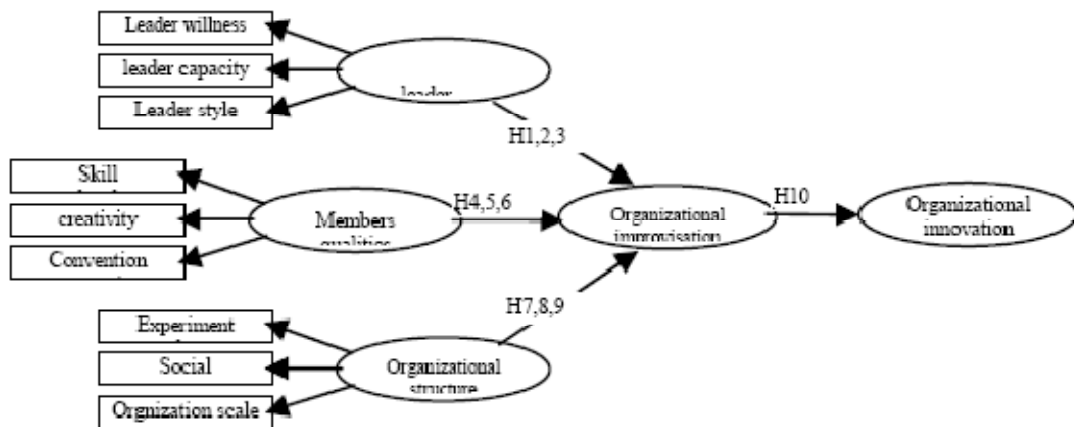


Figure 1 : Theoretical model induced issue factor improvisation

## EMPIRICAL TEST

### Research method

#### Research method and sample

In order to test the extent of organizational improvisation and effectiveness of conceptual model,through Structural Equation Modeling (Structural Equation Modeling, SEM) analysis method in this paper. mainly due to the relationship between the variables in this study are relatively complicated,difficult to directly measure, strong subjectivity, errors of measure and so on. using Amos 7.0 software combines SPSS17.0 which explored by Small Waters corporation to implement structural equation model test and verify process. Most of those experienced people who filled in the questionnaire

were for many years involved in the development of new projects and ideas, so they are able to understand the contents of the questionnaire completely, then ensuring the validity of data. In this study, a total of 316 questionnaires were sent out, returned 259 questionnaires, the overall return rate was 81.96%. 29 invalid In 259 questionnaires was abolished, getting 230 valid questionnaires finally fit for subsequent studies, the valid rate of questionnaires is 72.78%.

**Scale and questionnaire**

In order to ensure measure index compliance Consistent with the objective reality, with a high degree of reliability and validity, the paper using the following scale design principles to ensure scale designing quality: (1) If possible, choosing scale has appeared literature and the research which in direct contact with our research; (2) If possible, choosing the scales has been widely used and validated; (3) Selecting the scale has a high degree of reliability and validity. This study through a series of pre-test measures to ensure the rationality and applicability of scale, For reference scale established in the development process through in-depth interviews, sample measurement and group discussions to ensure its legitimacy and applicability.

Questionnaire design uses a closed questionnaire, the interviewee made a subjective answer, the remaining questions are subjective perception method besides basic personal information questions, using the form of Richter (Likert) five subscales to measured variables, which contain "totally disagree "as a 1 points, " disagree" as 2 points, "uncertain " as the 3 points, "consent " for the 4 points, " completely agree " to 5 points.

**Scale reliability**

In aspect of a scale reliability, the most commonly method is to measure the reliability by using Cronbach  $\alpha$  coefficient to measure the internal consistency of the questions. Cronbach  $\alpha$  reliability testing of variables in the questionnaire By SPSS17.0 statistical software, got the overall scale Cronbach's  $\alpha$  is 0.881(> 0.7), indicating that the overall scale has good reliability. 5 Scale factor variables leadership qualities, member attributes, organizational structure, organizational improvisation and organizational innovation capability all of these Cronbach's  $\alpha$  values 0.913, 0.890, 0.858, 0.900, 0.876 is bigger than 0.7, indicating a good correlation of each variable, high internal consistency coefficient, using of the scale to investigate is reliable<sup>[19]</sup>.

**Scale validity**

In order to calculate the scale of construct validity, using Varimax-rotated principal component factor analysis in SPSS17.0. Condition of factor analysis is sample data need to meet certain conditions. generally consider, the value of KMO is bigger than 0.5, the value of the chi-square test for Bartlett spherical is significant, and sample correlation matrix has a common factor, suitable for factor analysis<sup>[20]</sup>. Correlation coefficient test results of all the samples shown in TABLE 1. The results in TABLE 1 show, KMO is 0.796> 0.5, indicating suitable for factor analysis; significant value of Bartlett sphere is 0.000 <0.001, indicating that the correlation matrix is not an unit matrix, so it is also suitable for factor analysis. Select the principal component by the method of extracting the common factor method, factor rotation method should use variance maximum rotation (Varimax orthogonal rotation method), based on the standard extracted factors with eigenvalues bigger than 1.

For factor Load analysis evaluation criteria, generally considered that more than 0.71 is excellent, 0.63 is consider very good, 0.55 is consider to be relatively good, 0.45 is considered moderate, and less than 0.32 is not good. According to this standard, after all, by the exploratory factor analysis of the questionnaire,it can be seen the overall design is reasonable. Using the maximum variance orthogonal rotation factor analysis, there are 11 factors' eigenvalues bigger than 1.

**TABLE 1 : Kmo and bartlett's test**

<b>Kaiser-Meyer-Olkin Measure of Sampling</b>		<b>.796</b>
	Approx. Chi-	8102.732
Bartlett's Test of Sphericity	df	1034
	Sig.	.000

## The empirical results

In this paper, a theoretical model for empirical analysis using structural equation modeling to calculate, using the AMOS17.0. Specifically shown in Figure 2. Survey data use to fit the initial model then obtained the fit indices which is shown in TABLE 2. by the data in TABLE 2, the overall model fit indices meet the basic criterion, only the RMSEA value of 0.058, more than 0.05, slightly less.

**TABLE 2 : Whole model fit index**

$X^2/df$	GFI	AGFI	NFI	CFI	RMSEA
1.38	0.936	0.929	0.951	0.933	0.058

Take advantage of Amos software to test the significant of index, got the path coefficient estimates value and relevant test values, as shown in TABLE 3.

**TABLE 3 : Path coefficient estimates table**

	Path coefficient	Standard error	C.R.	P
Organizational Improvisation<---Leader Willingness	.159	.033	4.818	***
Organizational Improvisation<---Leader Capability	.578	0.071	8.140	***
Organizational Improvisation<---Leader Style	.183	.046	3.978	***
Organizational Improvisation<---skill Level	-.214	.054	-3.962	***
Organizational Improvisation<---Creativity	-.137	.020	-6.850	***
Organizational Improvisation<---Convention memories	-.032	.158	-.202	.816
Organizational Improvisation<---Experimental Culture	.187	.069	2.710	***
Organizational Improvisation<---Social Structure	.451	.050	9.02	***
Organizational Improvisation<---Organizational Scale	-.419	.078	5.371	***
Organization Innovation <---organization improvisation	.857	.045	19.04	***

**TABLE 4 : Hypothesis testing result**

	Hypothesis	result
H1	Positive correlation between leader willness and organizational willingness to improvisation	Support
H2	Positive correlation between leader capacity and organizational improvisation	Support
H3	Positive correlation between employee-oriented leadership style and organizational improvisation	Support
H4	Positive correlation between organizational improvisational skill level and organizational improvisation	Support
H5	Positive correlation between Creativity and organizational improvisationorganizational	Support
H6	Positive correlation between Convention memories and organizational improvisation	No support
H7	Positive correlation between support experimental culture and organizational improvisation	Support
H8	Positive correlation between improvisation social structure and organization	Support
H9	Negative correlation between organizational scale and organizational improvisation	Support
H10	Positive correlation between total organizational improvisation and organizational innovation	Support

## CONCLUSIONS AND DISCUSSION

We build the organizational improvisation impact factors theoretical model through literature analysis, empirical research on the typical creative team confirm the model and hypotheses, so that make the mechanism of organizational improvisation impact factors clearer. The empirical results of this analysis provide more empirical evidences for improving organizational improvisation theory and practice.

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