

An Analysis of the Causes of Interdisciplinary Organizational Change in Chinese Universities

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ABSTRACT

Interdisciplinary organization is the achievement of interdisciplinary construction and an important form of academic organization innovation in university, in the process of development, the interdisciplinary organizations of Chinese universities are faced with a dilemma that conflicts with the governance pattern of universities. This paper discusses how overly rigid governance has forced some interdisciplinary organizations to reform and even come to an end under the pressure of external institutional environment. The results obtained in this study show that the fuzziness in university governance is the vitality of university, which can provide more space for the development of new organizations; The development of interdisciplinary organizations needs the coordination between rigidity and fuzziness of university governance. In addition, the findings revealed how interdisciplinary organization is affected by the strong organizational inertia of the university in its development process, and then gradually involved in the traditional governance pattern of the university, and finally becomes the reproduction product of the governance pattern of the university. The research results are of great significance for solving the survival dilemma of interdisciplinary organizations in Chinese universities, by solving this dilemma, we can further promote the development of interdisciplinary organizations.

Keywords: *Interdisciplinary Organization, University Governance, Rigid, Fuzziness*

1. INTRODUCTION

Since the reform and opening up, many research universities in China have set up interdisciplinary organizations in order to improve their research productivity. In the outline of the 13th Five-Year Plan for the development of National Education issued by The State Council of China in 2017, it was clearly proposed to "accelerate the development of emerging disciplines and cross-disciplines" and "promote the construction of emerging cross-disciplines in colleges and universities, set up compound majors through major reform and other means". It can be seen that interdisciplinary organization construction has become an important issue in the future development of higher education, and interdisciplinary organization is one of the achievements of the development of interdisciplinary construction. Through the interdisciplinary organization, researchers can break through the limitations of their own field of knowledge, each discipline can realize the expansion of their own research fields and research methods through the cross

research within the organization, and the school can also cultivate talents with comprehensive ability through it.[1] However, guided by the university governance concept of "efficiency first" in China, interdisciplinary organizations face a series of conflicts and obstacles in their development in practice. Many initial positioning frontier interdisciplinary organization in existing management pattern in university are difficult to survive, the final submission to traditional mode of powerful "organizational inertia" and "cultural transmission effect" brought about by the conflicts and obstacles, lost its interdisciplinary organization characteristics, become a part of the organizational structure of traditional China university.

Why is there a gap between ideal and reality in the development of interdisciplinary organizations? What is the cause of the repeated setbacks in the development of interdisciplinary organizations? How do interdisciplinary organizations find their own way to survive in the current governance pattern of Chinese universities? From the fuzzy perspective of university governance, this paper reveals how interdisciplinary

organizations change under the influence of university governance system, thus providing inspiration for the development of other similar interdisciplinary organizations in Chinese universities.

2. LITERATURE REVIEW

"Governance" refers to the total of the various ways in which individuals and institutions, public or private, manage their common affairs. It is the ongoing process of reconciling conflicting interests and taking joint action.[2] Since the 1970 s, major western capitalism developed country's economic development has entered into the phase of "stagnation", have to reform to break the predicament of political, economic and social development in the own, governing ideas public management development orientation of this kind of dynamic and flexibility is produced in this context, and western countries to promote the basic principles of "reinventing government" [3].The governance theory into the university management began in the 1980 s published the 《ACADEMIC POWER: Patterns of Authority in Seven National Systems of Higher Education》,this book compares and analyzes the power structure and operation mechanism of universities in six European and American countries and Japan, put forward that the university power structure has the characteristics of "hierarchy of structure" and "cohesion of decision-making".[4]In 1994, Burton Clark argued in 《The Higher Education Systems: A Transnational Study of Academic Organizations》 that “University is a special interest organization, which is formed around the obligation of disciplines and institutes. This interest group reflects the power relationship of university. [5] The distribution of power in higher education system affects the mode of activity, the type of change and the values implemented by the university system”. Since then, scholars in the field of education began to study the management system of universities through the governance concept, they launched the higher education reform movement focusing on the establishment of governance policies. In this process, a series of important university governance theories also emerged.

"Fuzziness" is a concept existing relative to clarity, refers to the uncertainty of judgment caused by the ambiguous classification of things and the constant change of things. There is no absolute clarity of things in the world, and everything has a certain fuzziness, which is determined by the constant change of the external world and the limitation of human rational knowledge. American scholar Chaid pointed out in fuzzy set theory that the fuzziness and complexity of things are closely linked, and the more complex things are, the more obvious the fuzziness is. The more factors in the system of things, the more fuzziness the comprehensive evaluation of things; The more time-varying the dynamic of things, the more prominent

the problem of fuzziness it contains.[6] As a complex organizational system, university inevitably presents a certain degree of fuzziness. The importance of fuzziness in its governance practice cannot be ignored. Exploring the fuzziness of university governance is also a necessary part of improving university governance. The fuzziness of university governance is mainly reflected in the following aspects:

3. LACK OF FUZZINESS: THE CAUSE OF THE INTERDISCIPLINARY ORGANIZATION

To understand the fuzziness of university governance, we must pay attention to the complex relationship between power distribution and organizational hierarchy in universities. With the need of social development, the social openness of university is increasingly enhanced. As an academic organization composed of diversified stakeholders, while enjoying the ability to absorb numerous resources, university inevitably involves a variety of contradictions and conflicts that are difficult to reconcile behind it, and the governance of university also faces various challenges and dilemmas. Guided by the national governance system that combines planning and market, Chinese universities are constantly introducing governance concepts in the engineering field, pursuing "efficient" and "clear" governance systems and means, designing "refined" and "indexed" management processes and assessment systems to achieve efficient governance of universities.[7] As a result, fuzziness in university governance has been rejected because it is thought to lead to chaos in university internal governance.

3.1. The Conflict Between Administrative Power and Academic Power leads to Disciplinization

As an academic organization pursuing knowledge, teachers and researchers are the subjects of its academic power system, and they tend to be more willing to act according to their own discipline development rules and paradigms. Discipline is the result of specialization of knowledge production, different disciplines have their own cultural beliefs, discourse system and research paradigm, scholars in their own fields of different subjects accepted subject discipline for a long time, want to stick to their habit of thinking and research paradigm, and more loyal to their subject, in the process of organizational governance. They also prefer a state of organized anarchy. On the other hand, the operation of interdisciplinary organizations in Chinese universities is directly nested in the hierarchical system of "university-university-department", and many scholars regard interdisciplinary organizations as a "derivative" of the original discipline structure. [8] This leads to the

interdisciplinary cooperation scale expands unceasingly, interdisciplinary research form diversification under the background of the development of higher education, more and more interdisciplinary research results is difficult to find appropriate disciplines and departments, asymmetry between disciplines and departments to further highlight, the contradiction between the academic power and administrative power are also further intensified.[9]

In order to adapt to the current disciplinary structure, traditional interdisciplinary organizations are generally established on the basis of the dominant disciplines of existing colleges in universities, so as to realize the combination of strong disciplines and build disciplinary brands of universities. For example, The Institute of Information Science and Technology was established by Tsinghua University in 2004. The Peking University Frontier Interdisciplinary Research Institute was established in 2006 on the basis of integrating the resources of the university's dominant discipline groups. However, as a "derivative" form of organization, interdisciplinary organization itself is not endowed with enough administrative power, and its organizational structure is quite different from the traditional management structure of departments and colleges. It is relatively independent from the standardized governance system of "university-university-department", the university are unable to carry out effective and standardized administrative management, which not only brings some difficulties to school governance, but also easily leads to unclear division of power and responsibility within the organization[10],this is another major obstacle to the further development of interdisciplinary organizations under the university governance system that pursues efficiency.

3.2. The Cultural Conflict within the Organization leads to Disciplinization

W. Richard Scott proposed that a university is an institutionalized academic organization operating in a complex background of strong institutional environment and weak technical environment, the operating mechanism of academic organizations does not depend on strict technical system, but depends more on the discipline identification of scholars in interdisciplinary organizations and the complicated system established on this basis.[11] The fuzziness of university governance can give more vitality to interdisciplinary organizations, alleviate the potential conflicts of interests and values among different stakeholders, and enable the diversified stakeholders in interdisciplinary organizations to find their own value identification and emotional convergence.[12] It does not deliberately divide the status pyramid of different disciplines within the organization, but allows a discipline to occupy the

"high ground" of organizational development at different stages according to the development needs of the interdisciplinary organization, and finally obtains more social resources and school support.

However, as a new form of academic organization, interdisciplinary organizations and traditional department organizations are inevitably in a inferior position in the competition for academic discourse power, and their power in the process planning and resource allocation of interdisciplinary research projects may be gradually blurred, resulting in the integration of dominant disciplines. In terms of scientific research cooperation, traditional departments are reluctant to compete for scarce scientific research funds beyond their existing disciplines due to the scarcity of interdisciplinary scientific research resources and the fuzziness of resource allocation rules, even if they gain opportunities in the competition for scientific research projects through cooperation with other departments.[13] Thus, although the interdisciplinary organization want to achieve interdisciplinary cooperation between departments, but due to the different between the disciplines cultural value conflicts and competition for resources, scholars and researchers within the organization has its own career development and promotion of demand, etc., all these lead to the interdisciplinary research projects have been formalized and blur, went to China in the actual operation.

3.3 The Lack of Interpersonal Trust leads to Disciplinization

The concept of governance provides a theoretical basis for the renewal of the value orientation of government decentralization and reconstruction of government decentralization.[14] At present, China is constantly emphasizing that the government should delegate power to endue universities with more autonomy, turn from management to governance, and establish a reasonable relationship between government and universities. However, in fact, the government still controls the development of universities substantially through the discipline structure and discipline evaluation system that Chinese universities rely on. When these systems are internalized into university governance, they become the way of running schools that emphasize too much on performance indicators, market-oriented bidding mechanism and technology-oriented governance means. At the level of interdisciplinary organization development, the project system has become an important organizational form of interdisciplinary organization, and the competitive scientific research projects based on disciplines have become the main source of scientific research funds.

The disciplinary management and index evaluation in university governance are essentially caused by the lack of trust mechanism. On the one hand, due to the

lack of trust mechanism between the government and universities, the government chooses to evaluate the level of schools with detailed disciplinary indicators. There are no written evaluation institutions and standards for interdisciplinary academic achievements in the disciplinary evaluation system, and the construction of the evaluation system for interdisciplinary research achievements lags behind. As a result, it is difficult for interdisciplinary research achievements to win the attention of top journals in a certain discipline field, which is not conducive to the further development of collaborative innovation and interdisciplinary organization between disciplines. On the other hand, the lack of trust between the administrative power system and the academic power system within the university leads the administrative management of the university to rely too much on a variety of real-time performance indicators to evaluate the development level of interdisciplinary organizations. As an emerging interdisciplinary organization in the low score means that the index in the evaluation of university can't get all the attention of management system, school administration leadership is precisely to its discipline evaluation scores as a measure of the level of organization development's important basis, and later school for its support and resources in the development of division of body.

4. PROMOTING THE FUZZINESS OF UNIVERSITY GOVERNANCE

4.1 External Fuzziness: Making up for Institutional Gaps in Interdisciplinary Organizational Development

4.1.1 Transformational Leadership of Leaders

The rapid development of information technology and the rapid change of external environment make the society pay more and more attention to the governance ability of university leaders. The fuzzy tolerance of university leaders is mainly reflected in their transformational leadership, that is, the stronger the transformational leadership of leaders, the higher the fuzzy tolerance will be in the process of university governance. The so-called transformational leadership refers to that the leader develops the personal responsibility and interest of team members to make them realize the importance of their obligations, stimulate the intellectual potential of team members, encourage the overall morale of the team and work towards a common long-term goal. From the perspective of university governance, transformational leadership can bring infinite vitality and vitality to interdisciplinary organizations. Specifically, transformational leadership is the requirement of the university of leaders could in a highly uncertain

environment for the development of the new organization entity predictable development goals, motivate the inner motive power of organization members, at the same time also requires the leader to effectively coordinate the new organization and the original organization on the resources and the interests of all kinds of contradictions and conflicts. According to the "Multi-factor Leadership Questionnaire" developed by Bass et al., transformational leadership mainly includes the following four dimensions: model influence, inspiring motivation, intellectual stimulation and personalized care. Therefore, university leaders must set up a kind of interdisciplinary organization is willing to support the development of ideas, and pass this kind of idea from top to bottom to lower level management personnel at all levels, guide the administrative personnel and the interdisciplinary organization to establish a relationship of mutual trust between scholars, thus no longer rely on a variety of prescriptive rules and regulations governing the interdisciplinary organization of all kinds of behavior, Give cross-disciplinary organizations the necessary discretion. At the same time, leaders need to constantly to explain the profound significance of the new organization set up both organizations, encourages subordinates to question the old way of doing things, and take innovative organization form to instead, according to the different characteristics and potential of the new organization to provide personalized development support, let the group members can feel superior care, thereby improving the effectiveness of university governance goals are met.

4.1.2 Fuzziness in Policy Implementation

The fuzziness of policy implementation is a general term for the unclear information picture and uncertain process of policy implementation. In the process of university governance, due to incomplete information and the limitation of people's understanding, the refined policy design based on rational principles is likely to be unsatisfactory and produce unexpected results, which requires the coordination of fuzziness in the process of policy implementation. Interdisciplinary organization in the university was originally established in order to break through the barriers between disciplines, out of the university faculty governance of cage, improve the organization's output creative achievements, however, because of the interdisciplinary organization of policy text and execute standard is not perfect enough, when the university established interdisciplinary organizations exist deviations in understanding and implementation, Finally, the development of some interdisciplinary organizations backfired and embarked on the road of discipline. Therefore, in order to avoid interdisciplinary organizations from becoming academic, mobilize the internal enthusiasm of policy implementers and improve the adaptability of policy,

fuzzy treatment of policy objectives and policy standards is needed in university governance. In the development of interdisciplinary organizations, a certain space should be reserved between decision-makers and practitioners. Decision-makers do not need to formulate clear indicator systems and rigid rules and regulations according to discipline structure and discipline evaluation, let alone set up projects or the number of papers to be published for innovation-oriented interdisciplinary organizations. On the basis of following policy norms and principles, executives flexibly choose policy tools and implementation strategies, and actively explore and perfect effective organizational operation mechanisms. Flexible policy system is the key to maintain the vitality of interdisciplinary organization, interdisciplinary organization as different levels of the university academic organizational structure of a kind of "academic zone", its operation relies on a more "organized anarchy", so to strengthen the academic power plays in the development of interdisciplinary organizations say, Create a relaxed and free academic atmosphere for the development of interdisciplinary organizations.

4.2 Internal Fuzziness: Eliminate Cultural Conflicts in the Development of Interdisciplinary Organizations

4.2.1 Cultural Identity within the Organization

The university is a pluralistic and culturally integrated organism, rather than a mechanical body that relies on a series of complicated institutions. Clear rules and regulations and rigid management system in university governance will weaken the adaptability and innovation ability of interdisciplinary organizations to the external environment, make the development of interdisciplinary organizations trapped in a rational cage, resulting in conflicts and contradictions between disciplinary cultures. Subject is the result of highly developed and differentiated knowledge. As an academic organization that pursues advanced knowledge, subject is the foundation of its existence, and it is difficult to make fundamental changes in the cultural concept of university based on subject. Interdisciplinary organization itself is open and should embrace different cultural concepts of subject. Therefore, the development of interdisciplinary organizations also needs the fuzziness of internal governance, which is an inevitable requirement to avoid interdisciplinary organizations from becoming subject oriented and its further development in the future.

The so-called fuzziness of internal governance means to establish fuzzy cultural identity within interdisciplinary organizations. Instead of deliberately pursuing a precise core value identity, internal members

of the organization can get the values and ideals they want from it according to their own needs. Therefore, it is necessary to construct a sense of academic community within the interdisciplinary organization, enhance the recognition of scholars within the organization itself, and play a compensating role of cultural integration on institutional differentiation. It is necessary to create an interdisciplinary research platform for effective communication and dialogue among scholars of different disciplines, cultivate mutual trust between scholars on the platform as the carrier, and realize equal dialogue among scholars. Research universities should give full play to their advantages of large instrument resource sharing platforms to provide conditions for the establishment of trust relationship in interdisciplinary research cooperation. At the same time, improve the national professional title evaluation and talent engineering mechanism, provide policy preference and resource guarantee for scholars from weak disciplines in interdisciplinary organizations, and avoid the monopolization of resources and discourse power by strong disciplines within organizations.

5. CONCLUSION

University governance is a process full of complexity and difficult to fully control, which has both clear governance structure and fuzziness that cannot be ignored. Interdisciplinary organization constantly change is too much emphasis on in the current university governance is changed as a result of rigidity, although there are still heavily in Chinese universities to form all kinds of interdisciplinary organization, but if the future interdisciplinary group is still in the fuzziness under the lack of university governance structure, its ultimate consequences may be "interdisciplinary" become a mere formality. Complete regulation system is a sufficient condition of the effective governance of university, and the fuzziness of governance is at the university of life and value, also can have an important impact on the effects of university governance, maintain the fuzziness of university governance both to make up for the lack of interdisciplinary organization of the external system environment, can also be fused interdisciplinary subject cultural differences within the organization, At the same time, the academic innovation ability of the members of the interdisciplinary organization is stimulated. Therefore, the future development of interdisciplinary organizations needs to further enhance the fuzziness in university governance, and universities need to give more flexible space to interdisciplinary organizations to better play their innovation capabilities.

ACKNOWLEDGMENT

The author is very grateful to my supervisor and fellow students, whose guidance and advice have made great contributions to the development of this research.

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