

Chapter 5

How Does the Hierarchical Management System Influence the Climate of Creativity in Chinese University Laboratories?

Chunfang Zhou
Aalborg University, Denmark

ABSTRACT

This chapter aims to investigate how the Chinese hierarchical management system influences the climate of creativity in university laboratories. A questionnaire (Creative Climate Questionnaire, CCQ) survey was carried out with 25 laboratories (126 participants) at 7 universities in Northeastern China. The comparative study reveals both the advantages and disadvantages of the hierarchical management system for creativity in university laboratories. To some extent, the hierarchical system stimulates different levels of laboratories to shape different collective objectives and goals, and it increases the synergy of the creative abilities of group members in laboratories. However, the uniform model of “hard resource distribution” regulated by the hierarchical system cannot meet the diverse needs for the development of creativity in university laboratories.

INTRODUCTION

In the past two decades in China, some new strategies have been applied to the promotion of university-based research and its commercialization, particularly in research units such as university laboratories in elite institutions, for which the central government provides greater funding (Wu,

2007). For example, *Project 985* is a constructive project for founding 21st century world-class universities which is being conducted by the Chinese government. *Project 211* is the Chinese government’s new endeavor aimed at strengthening about 100 institutions of higher education and their key disciplinary areas as a national priority for the 21st century (China Education Center,

DOI: 10.4018/978-1-4666-6457-9.ch005

2013). These endeavors indicate what Etzkowitz and his colleagues (2000) have emphasized: as part of the shift, universities are developing from the traditional profile of ivory tower institutions towards the entrepreneurial paradigm.

Furthermore, the new strategies employed in China are responses to the challenges of globalization in higher education development: the universities are developing not only regionally but also internationally, and university faculties are increasingly involved in business-oriented activities to generate additional resources. Thus, a process of “academic capitalization” is becoming increasingly popular in shaping the higher education sector across the globe. A new concept of “university-academic-productive sector relations” has emerged (Mok, 2005), with the university laboratory as one of the most important actors in building such new relations. So the new strategies in China have increased the overall competitive advantage of universities and university laboratories in the context of globalization; however, they have also led to increasing competition over the gaining of “academic capitalization” between the universities as well as between the university laboratories regionally in the current hierarchical management system (Zhou, 2007).

In China, there are three main levels of university laboratories in the hierarchical system: Levels A, B and C, which are supported by central government, provincial government, and urban government, respectively. Level A laboratories are at the top of the system, which means they gain the most resource of the three levels. Most of the Level A laboratories are located in universities involved in *Project 985* or *Project 211*. Accordingly, C Level is at the bottom and gains the least resource. The groups working in the laboratories mainly consist of university staff and students, and the bureaucratic elements of knowledge management include the hierarchy headed by the group leaders (professors in universities), who have overall responsibility for the management of the laboratories. This kind of management system is

much influenced by traditional Confucian culture that retains more hierarchical social structures than such systems in Western countries and stresses the importance of collectivism; in other words, collective benefits are regarded as more important than individual needs.

This chapter is primarily concerned with the influence of the hierarchical management system on the climate of creativity in university laboratories in China. Creativity generally involves the ability to offer new perspectives, generate novel and meaningful ideas, raise new questions, and come up with solutions to ill-defined problems (Runco, 2007). Therefore, creativity has been viewed as the ultimate economic resource and as essential for addressing complex individual and societal issues (Craft, 2005). However, although the ideas, questions, or solutions originate in people’s minds, there are a growing number of studies suggesting that creativity is fundamentally a socio-cultural conception, affected by shaping forces from the organizational, social, and cultural environment (Runco, 2007; Amabile, 1996). Correspondingly, “climate” has been regarded as one of the important elements of creativity and it is used to describe the recurring patterns of behavior, attitudes, and feelings that characterize life in an organizational environment (Runco, 2007; Ekvall, 1996). In practice, some instruments that aim to examine the factors of climate have been designed and employed based on theoretical research. Studies have shown that the Creative Climate Questionnaire (CCQ) developed by Ekvall (1983, 1996, 1999) has been welcomed in many organizational environments.

Following on from these points, this chapter proposes two research questions:

1. How does the hierarchical management system influence the climate of creativity in university laboratories in China?
2. What are the advantages and disadvantages of the Chinese hierarchical management system for the development of creativity in university laboratories?

11 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/how-does-the-hierarchical-management-system-influence-the-climate-of-creativity-in-chinese-university-laboratories/117843

Related Content

Grief and the Psychological Transition Process Among Information Technology Team Members

Letitia Larry (2020). *Optimizing Data and New Methods for Efficient Knowledge Discovery and Information Resources Management: Emerging Research and Opportunities* (pp. 1-31).

www.irma-international.org/chapter/grief-and-the-psychological-transition-process-among-information-technology-team-members/255749

Qualitative and Quantitative Formalisms for Knowledge Representation in the Theory of Multitudes

Cyril Pshenichny (2018). *Dynamic Knowledge Representation in Scientific Domains* (pp. 32-75).

www.irma-international.org/chapter/qualitative-and-quantitative-formalisms-for-knowledge-representation-in-the-theory-of-multitudes/200169

Discovering Interesting Patterns in Numerical Data with Background Knowledge

Szymon Jaroszewicz (2010). *Rare Association Rule Mining and Knowledge Discovery: Technologies for Infrequent and Critical Event Detection* (pp. 118-130).

www.irma-international.org/chapter/discovering-interesting-patterns-numerical-data/36903

Genome-Wide Analysis of Epistasis Using Multifactor Dimensionality Reduction: Feature Selection and Construction in the Domain of Human Genetics

Jason H. Moore (2007). *Knowledge Discovery and Data Mining: Challenges and Realities* (pp. 17-30).

www.irma-international.org/chapter/genome-wide-analysis-epistasis-using/24899

A Comparison of Revision Schemes for Cleaning Labeling Noise

Chuck P. Lamand David G. Stork (2008). *Mathematical Methods for Knowledge Discovery and Data Mining* (pp. 220-232).

www.irma-international.org/chapter/comparison-revision-schemes-cleaning-labeling/26142