

Chapter 3

Research Funding and Its Influence on Academic Research Under China's University Governance System

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ABSTRACT

One of the most important goals for universities in China today is to enhance research competence. Focusing on the role of research funding from government and non-government sectors, this chapter aims to examine research productivity under different governance systems. Based on a sample of faculty members from 30 public universities in China, it describes how various university governance systems influence scientific research in different ways. A bureaucratic governance system increases the amount of government funding, which contributes to academic publications and patents. Whereas, a collegial governance model has a lesser effect on non-government funding, which could promote patenting and technology transfer. The findings indicate several policy implications regarding the reform of research management and university governance in China.

INTRODUCTION

In China, academic research used to be managed by a centralized administration system, which could undermine academic autonomy and lead to complicated management. Recently, enhancing the research competence of Chinese universities and setting up a modern university governance system has become an important policy initiative in China.

The reform of university governance started in 1985 when a decision was taken regarding the reform of the educational system requiring priority to be given to university autonomy. The 1993 Program for Educational Reform and Development in China further empowered universities to run their internal affairs in relation to teaching, research, and social services (Zha, 2006). In 1998, the 'principal accountability under the leadership of the party committee' was written into China's Higher Education Law, providing a legitimate foundation for university autonomy with Chinese characteristics. Following the release of the Outline of China's National Plan for Medium and Long-term Education Reform and Development 2010–2020, universities were allowed wider discretion to set up internal organizations and decide income distribution within the university. In brief, the governance model of Chinese universities has gradually become less centralized with increasing autonomy in terms of financial and academic matters (Li & Yang, 2013).

Plenty of literature has examined the influence of university governance, and a great deal of it has focused on academic research. However, there are no consistent findings about which type of governance model has a greater influence on academic productivity. On the one hand, some researchers believe that a collegial model benefits academic research. For example, De Silva Lokuwaduge and Armstrong (2014) found that a governing board with more faculty members could produce better academic performance. On the other hand, some researchers have shown that the bureaucratic model could benefit academic output through standardized management, strengthened incentives, and greater capacity to attract resources (Cheng & McKinley, 1983; McCormack, Propper, & Smith, 2014).

In general, the effect of university governance on academic research is mixed, and little is known about how the governance system affects scientific research. This chapter attempts to examine the relationship between the governance system and research outputs, focusing on the intermediating effects of research funding from different sources. As universities develop 'triple helix' relationships with the government and industry, university research is increasingly steered by grants from multiple agents (Etzkowitz & Leydesdorff, 2000). A diversified financial system might benefit academic research. Some studies have found that government funding can promote academic research. For instance, Payne and Siow (2003) examined the impact of federal research funding on university-level research output and found that \$1 million of federal research funding was associated with ten more articles and .2 more patents. Some studies found small positive effects of funding on individual researchers (Arora & Gambardella, 2005; Averch, 1989). However, there is the potential for selection bias, which could lead them to overstate the true impact of grant receipt. Whereas, some researchers argue that private research contracts could promote researchers and give them access to additional resources, which could help to generate research ideas, and achieve higher academic productivity (Gulbrandsen, & Smeby, 2005; Van Looy et al., 2004).

This chapter aims to answer two questions: (1) What is the relationship between university governance systems and academics' research funds from different sources? (2) Does governmental and non-governmental funding affect academic output in different ways? The analysis is based on a survey of faculty members from 30 public universities in China. The rest of this paper is organized as follows: section two reviews university governance model theories and introduces the practices in China. Section

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