Research on Government Chief Information Officer System in China: A Critical Assessment

Chongzhao Li
Fudan University
School of International Relations
and Public Affair,
Shanghai, China, 200433
+86113661843812

anan3721@gmail.com

Shuhua Liu
Fudan University
School of International Relations
and Public Affair
Shanghai, China, 20043
+86113611675121

shuhua.monica.liu@gmail.com

Lei Zheng
Fudan University
School of International Relations
and Public Affair
Shanghai, China, 200433
+86113501838298

zhengl@fudan.edu.cn

ABSTRACT
In this study, we reviewed papers on Government Chief Information Officer (GCIO) published from 1980 to 2009 in Chinese Academic Journals. Employing quantitative and qualitative methods, we found that most published papers are descriptive in nature and lack in-depth academic analysis.

Categories and Subject Descriptors
K.6.1 [Project and People Management]: Strategic Information Systems Planning

General Terms
Management, Measurement, Performance, Design

Keywords
Public CIO, Information Officer (xin xi guan, xin xi zhu guan), Assessment

1. INTRODUCTION
In the context of global informatization, governments around the world are rapidly employing information technology. The establishment of GCIO system is one of the new attempts to promote the development and use of information technology and collaborative information sharing across different segments. Statistics show that GCIOs played an irreplaceable role in strengthening government informatization initiatives. In this paper, we assessed the quality of current academic publications and studies on this specific topic, with the aim to outline the current status of the research, and identify issues and problems of GCIO system in China.

2. METHODOLOGY
We conducted a literature review on core journals and other related periodicals, and collected data on the current status of GCIO research in mainland China. We chose the largest database

of China, the China National Knowledge Infrastructure (CNKI, www.cnki.net). We decided to limit our literature review to papers published from 2000 to 2009, because the concept of the GCIO didn't appear until 2000, 58 papers were found as the subjects for this assessment. Owing to its interdisciplinary nature, research on GCIO system encompasses an array of rich research ingredients. Therefore, we conducted a multifaceted analysis to code the papers. Special attention were paid to the author, author's institutional association, publish venues page numbers, research themes, research methods, level of analysis, and geographical focus. Both quantitative and qualitative analysis was also conducted to examine the progress and trends of the GCIO research in China.

3. FINDINGS AND RESULTS
3.1 Quantitative Analysis
Fifty-eight papers were published on GCIO system over the past 10 years in China, and the first paper on this topic was published in 2000. Two more were published over the next two years. 2004 saw the most papers on this topic, twelve papers in a single year. We then witnessed a sudden slump in 2006 with only two papers. Although the number climbed back to 12 publications again in 2007, we are seeing slow decline in 2008 and 2009.

Among these 58 papers, eleven papers (19%) were published in nine core journals, 47 papers (81%) published in 28 non-core journals. Thirty-nine papers (67.2%) published were in the area of Institutional Building for GCIO system. Next, the discussion on role and responsibility of CIOs was the second favorite topic among all authors on which nine papers (15.5%) were published, while seven papers (12.1%) were on GCIO's Talent Acquisition and Training.

About 63.8% of authors are from Universities or research institutions, 20.7% are from government agencies while 15.5% are from the private sectors and other social organizations. About 32.5% of authors have a background in information management, 24.3% in public administration, 8.1% held a degree in law, 10.8% of authors are from Sociology and library science, and researchers from communications claimed a share of 2.7%.
Out of the 58 publications, three were gearing toward theory development; five of them were empirical studies while only one paper used comparative methodology. Most of other papers have a very strong descriptive nature, elaborating on international experiences and presenting personal viewpoints.

Only 8.7% of papers were analyzing GCIO system practices on the provincial and municipal lever, 91.3% are into general

discussion of the concept of GCIO. There was no research on GCIO system practices on the central government and the grass-root level. In terms of geographic focus wise, 45 papers looked at the GCIO system in China, nine studies looked at GCIO system practice and theories outside China, while four papers focused more on comparing practices between China and other countries.

3.2 Qualitative Analysis

Qualitative analysis was also conducted on all 58 papers. Our analysis suggested that most of current research on GCIO in China centered around three major themes:

1) Institutional building: Papers falling under this category mainly focused their attention on the current status of China's GCIO system, discussing on its necessity and major functions the system can play. Although government agencies such as the Steering Committee of Informatization has been established[1], China still doesn't have a well-equipped GCIO system that can meet the need of the current development of E-government[6][2][7]

2) Talent Acquisition and Training: Multiple researchers suggested that the government should put more efforts in training and securing talented and capable GCIO candidates who can quickly adapt to different lines of work strategically[3][8].

3) Role and Responsibilities: GCIO's role and responsibility in public sectors also emerged during our study, debating on how to position this new role in relation to the whole system and how to define GCIO's basic responsibility and what is the baseline [4].

4. DISCUSSIONS AND IMPLICATIONS

In the past 10 years, little progress was made in this area in China. All 58 papers are widely spread in many journals across different disciplines. On one hand, it is clear this is a topic that interests many researchers across disciplines, on the other, it also indicates a lack of consistency and the existence of a rigorous scholarship.

Data analysis demonstrates that most researchers are only concerned with macroscopic concepts, limiting their discussions to the necessity and roles of the current GCIO system. No empirical studies has been conducted, thus it is not surprising that no attempts was made to provide suggestions or guidelines for GCIO practices.

Most papers reviewed have a descriptive nature, only touching on brief experiences and personal viewpoints. Most papers don't even have a method section. Thus it is almost foreseeable that the quality of papers on this topic is very low. Large numbers of short papers (less than 4 pages long) called in question about the quality of these publications.

5. CONCLUSION AND FUTURE STUDY

In this study, we argued that the current research on GCIO system in China is in need of more attentions from both practitioners and researchers. Efforts need to be made in developing rigorous methodologies. More empirical studies also need to be conducted before concrete guidance can be provided for practitioners to move forward. However, this study might not include all the related papers, and some of included papers were not with high quality. We will closely monitor the development in this area in the future

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