

# Information Systems Research in China: An Empirical Study

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## ABSTRACT

*The purpose of this study is to review current research activities concerning information systems (IS) in mainland China. We thus examined Chinese IS research with reference to discipline, research topic, research method, and units of analysis, identifying and reviewing a total of 604 research papers, published in 18 leading Chinese academic journals from 1999 to 2003. The results show that: (1) IS itself represents the major theoretical reference of the studies; (2) the IS research in China has clearly focused on organizational and system/software issues; (3) non-empirical studies were dominant in the field of IS research in China; and (4) the majority of studies were conducted at an organizational or systemic level.*

*Keywords: IS; reference discipline; research topic; research method; units of analysis*

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## INTRODUCTION

Information systems (IS) as a discipline are relatively young with less than four decades of history (Huang, Wei, & Watson, 2003; Vessey, Ramesh, & Glass, 2002). In China, IS is even younger. For example, despite the development of IS in China over the past 25 years, there is still no academic journal dedicated to the IS field. Not until the mid-1980s was the first undergraduate MIS program established at a few leading universities in China (Hu, 1999). In 1998, the Ministry of Education of the People's Republic of China consolidated

five IS-related specialties into one, namely information management and information systems (IMIS). Since then, the IS discipline has developed rapidly. To date, over 170 universities and colleges have established an IMIS degree with many more universities hoping to do the same in the future (Zha, 2003). Meanwhile, an increasing number of scholars have chosen IS as their research field. As a result, more and more research papers in IS are being published in various academic management journals. Despite the rapid development of the IS field in teaching and research in China,

there is generally a lack of understanding and knowledge about the past and current state of IS research activities in China. The purpose of this study is to examine IS research activities in China through a systematic review of IS research papers published in the leading academic journals in recent years.

The importance of this study can be explained in the following three ways. Firstly, for IS researchers in China, the study provides an overview of what has been done in the past and what needs to be accomplished in the future. As pointed out by many researchers, a review of existing literature is critical to further develop a discipline and create new knowledge (Alavi & Carlson, 1992; Webster & Watson, 2002). We hope the study will serve as a basis for discussion among IS researchers in China so as to understand the past and direct their efforts in the most productive manner in the future. Secondly, for IS researchers in regions other than mainland China, we hope to shed light on IS research in China from the perspectives of research topics, methodologies, reference disciplines, and units of analysis. We also hope to identify the similarities and differences between research in other regions of the world and that in mainland China, and explain the causes of these differences. Finally, we hope the findings of the study will contribute to the ongoing discussion of what constitutes the discipline of IS, a debate that has developed over the past decade or so (Banville & Landry, 1989; Vessey et al., 2002).

## LITERATURE REVIEW AND RESEARCH FRAMEWORK

Since the first IS program was established at the University of Minnesota in 1967, the information systems discipline has gone through a period of steady, and often rapid growth, and the discipline itself has recently been engaging in extensive self-examination (Huang et al., 2003; Nolan & Wetherbe, 1980; Paul, 2002; Vessey et al., 2002). A number of IS research review papers have been published over the past few decades in leading IS academic journals such as *Communications of the AIS*

(*CAIS*), *Communications of the ACM (CACM)*, *Decision Sciences (DS)*, *The European Journal of Information Systems (EJIS)*, *Information and Management (I&M)*, *Information Systems Research (ISR)*, *Journal of Management Information Systems (JMIS)*, *Management Science (MS)*, and *MIS Quarterly (MISQ)*. For example, Ives, Hamilton, and Davis (1980) developed a framework of IS research and used it to classify 331 IS doctoral dissertations in terms of research categories and methods. Culnan (1986) did a co-citation analysis of the IS literature for a period of over 10 years (1972 to 1982) and identified IS subfields, IS research themes, and IS reference disciplines. Culnan and Swanson (1986) reviewed papers published from 1980 to 1984 and found that IS had emerged as an independent discipline. Banker and Kauffman (2004) reviewed IS literature published in management science over the past half century and identified five research streams. They state that their five streams “incorporate different definitions of the managerial problems that relate to IS, the alternate theoretical perspectives and different methodological paradigms to study them, and the levels of the organization at which their primary results impact managerial practice” (Banker & Kauffman, 2004, p. 281). Vessey et al. (2002) developed a comprehensive framework to empirically analyze the “diversity” of the IS field. Their analysis was based on reference disciplines, research topics, research methods, and units of analysis. Other studies discuss other aspects of IS, such as the “intellectual structure of MIS” (Alavi & Carlson, 1992; Paul, 2002), the evolution of IS (Farhoomand & Drury, 1999), and the research tradition (Alavi, Carlson, & Brooke, 1989). In summary, this research most often examined IS according to the following categories: reference discipline, research stream and topic, research method, and units of analysis (Alavi et al., 1989; Alavi et al., 1992; Banker et al., 2004; Claver, Gonzalez, & Llopis, 2000; Culnan et al., 1986; Farhoomand et al., 1999, 2001; Grover, Lee, & Durand, 1993; Hamilton & Ives, 1982a, 1982b; Vessey et al., 2002). Since a comprehensive review of the development

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