

Chapter 11

Formulating a Framework for Desktop Research in Chinese Information Systems

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ABSTRACT

The investigation of information systems (IS) development usually relies on two different research approaches, namely, quantitative approach and qualitative approach. Both approaches are equally important and useful to the development of IS theories. No research approach should be considered to be superior or inferior to the other. However, the mainstream of Chinese IS research mainly follows the quantitative approach, whereas the qualitative approach is generally viewed as “too soft” or not scientific enough. As a qualitative approach, desk case-study research approach has been widely accepted and applied in a number of IS research in the West. However, in China, this approach is merely considered as an effective approach for teaching, but not valid for scientific research investigations. Thus, Chinese IS research have neglected a number of important experiences, viewpoints and lessons, which can be elicited from IS case-studies occurred in the past. This chapter generally aims at introducing and discussing the desk case-study approach in IS research. Specifically, this chapter discusses this approach through four incremental research stages, namely, defining the research question, establishing theoretical framework from literature review, case-study selection, and theory formulation through case-study analysis. Furthermore, two exemplary research projects are presented in this chapter to further clarify and substantiate the research methods, tools and processes. It is expected that by formulating a rigorous research framework and specifying incremental processes of theory development, this research approach could be accepted and used by Chinese IS scholars in the future.

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1. INTRODUCTION

It is universally accepted that IS research predominantly adopt two research approaches, namely, quantitative approach and qualitative approach (Myers, 1997). The quantitative approach mainly adopts objectivist ontological and positivist epistemological position, attempts to understand a social phenomenon by interpreting numbers (Bryman, 2001). This approach emphasises on quantification in the processes of data collection and analysis and is usually used to test a theory and to draw conclusions (Bryman, 2001). On the other hand, the qualitative approach usually employs constructivist ontological and interpretivist epistemological positions, depends on the use of words and is usually used to generate or extend a theory (Bryman, 2001). The two approaches adopt two very different philosophical stances, consist of different sets of methods and techniques, and are used in IS research for very different purposes.

In any case, both approaches are scientific and one cannot be considered as superior or inferior than the other. Nonetheless, in the field of Chinese IS research, there is a generally accepted presumption, which believes that the quantitative research methods and the extensive use of statistics and mathematics are the symbols of good and high quality scientific research. Moreover, it is almost public knowledge that Chinese IS and management academic journals are more willing to accept quantitative research articles, particularly those embody complex mathematical algorithms, even though in some cases the algorithms probably have very limited relevance to the contents of the article (Zhang, 2007). For instance, the Journal of the China Society for Scientific and Technical Information is well accepted as the top IS journal in China. It is well-known in the field that this particular journal only accept articles, which report quantitative analysis and statistical research works. One should always include some kind of mathematical components in an article. On the other hand, qualitative research approach is gen-

erally disregarded as “too soft” and not scientific enough (Zheng et al., 2006). The negligence and bias against qualitative approach have resulted in a heavy reliance on the concepts and theories developed in the West and in a significant lack of locally developed knowledge and theories.

This chapter, instead of campaigning for qualitative methods and providing a general debate on pros and cons, aims at introducing and describing a specific IS research approach, namely, a desk case-study IS research approach. This approach not only is a very useful and effective approach in the study of IS, but also is internationally accepted and widely applied. It is hoped that by presenting and discussing technical details of this research approach in this book and on an international stage could significantly increase the perceived credibility of this approach and hence can be accepted and used by Chinese scholars.

This chapter aims to explain the desk case-study approach in great details. Specifically, this chapter is structured as follows. Section 2 attempts to provide a definition to the desk case-study approach. Section 3 explains the research processes when performing this type of research. Specifically, four main research steps are defined, explained and discussed in this section. Section 4 aims to discuss advantages and disadvantages of this approach. Finally, in Section 5, two completed research projects are presented and discussed in order to exhibit how this approach is operationalised in practice.

2. DEFINING THE DESK CASE-STUDY APPROACH

Desk research is generally accepted as equate to literature review and is very concisely defined by Jackson (1994, p. 21) as “the process of accessing published secondary data”. This definition points to two distinct characteristics of desk research. Firstly, desk research exclusively relies on published secondary data. The term “published”

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