

# Chapter 3.11

## Web-Based Data Collection in China

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### ABSTRACT

In the last few years, Web-based surveys have received increased attention given their potential to cut the costs and time associated with paper-based surveys. In this exploratory study, we consider the feasibility of using the Web as a data collection medium in China, which has a current Internet population of 103 million. Following a review of the literature regarding the design, implementation, and application of Web surveys, and the current state of data collection in developing countries in general and China in particular, we describe how we developed a Web-based survey instrument focusing on the ethical values of IT professionals. We e-mailed 5,000 IT professionals in China, inviting them to participate in the survey. Thirty-seven percent of those contacted visited the Web site and 5.8% submitted the survey. The survey data, both qualitative and quantitative, is analysed and discussed with a view to drawing up instructive guidance for researchers interested to use the Web

as a data collection tool in China, as well as developing countries more generally. The Web-based survey has great potential in these contexts, if sensitively designed and implemented. We consider the implications of this research and identify areas where future research is necessary.

### INTRODUCTION

Empirical research in China has traditionally applied a variety of research methods. Key amongst these have been surveys of various sectors of the population. Some of these surveys have relied on secondary data (e.g., from government sources) but the paper-based questionnaire has also been frequently deployed. The toolbox of survey techniques has recently been extended with the development of Web-based surveys — surveys that reside on Internet Web sites and are completed online. In this exploratory study, we report on an ongoing project that involves the collection of survey data in China

with a Web-based survey instrument and provide initial answers to the question “Is it feasible to use the Web to collect survey data in China?”

In order to engage in research that would be valuable from both content and methodological perspectives, we decided to investigate the ethical reasoning of IT professionals in China. Through this investigation, we aimed both to develop our knowledge about Web-based surveys in China, and specifically with respect to a professional target population, many of whom can be expected to have access to the Internet, and to develop our knowledge about the ethical reasoning of an important set of participants in the national economy. Much concern has been raised about ethical values in general around the world in the wake of various corporate scandals. There are parallel concerns in China in academia (Ding, 2002) as well as in the business sector (Huang & Snell, 2003; Steidlmeier, 1999; Su, 2001). This concern extends to the IT sector, given the extent to which our society depends on effective and efficient IT. Nevertheless, the sensitivity of this topic clearly creates challenges for any kind of data collection procedure. However, we believed that a sensitively designed Web-based survey would provide potential respondents with a high level of confidentiality when they submitted their responses, a confidentiality that would be hard to replicate with face-to-face or paper-based survey techniques. The main thrust of this article is a methodological one, given our research question. However, we do make reference to ethical issues on occasion as they relate to the instrument that we used to collect data.

Following this introduction, we concisely review a number of literatures germane to this study, viz.: Web-based surveys, data collection in developing countries in general, as well as in China in particular; and the Chinese experience with Web-based surveys. We then explain the precise methodological approach used in this study, with a detailed description of the way we operationalised the research instrument on the Web, and the procedures associated with ensuring the rigor of the

research design. The survey results follow, with a particular emphasis on the methodological issues, which are then discussed before we conclude with key findings and directions for future research. We do not report on or discuss the ethical reasoning employed by IT professionals in China, since this is not the focus of this article.

## **LITERATURE REVIEW**

In order to review the literature on Web-based surveys in a systematic fashion, we followed the following protocol. Firstly, we reviewed the literature on Web-based surveys in general (i.e., without any restriction to China or other developing countries), in order to identify current practices as well as the broadly recognised advantages and disadvantages of this adaptation of the paper-based survey method. Secondly, we looked at current data collection methods in developing countries: we considered paper-, e-mail- and Web-based surveys. These two areas of literature were not restricted to the information systems or information management domains. Next, we focused our literature search on the specific case of data collection in China, and the use of Web-surveys in that context. At this stage of the search process, while we searched the English language databases, we also looked at Chinese language databases, which cover publications in Chinese that are published inside China. Finally, we summarise the relevant literature findings in a short section.

### **Web-Based Surveys**

In the early years of the Web (i.e., the mid-1990s), most Web sites were relatively static entities that only provided a one-way information dissemination channel. However, as Thompson, Surface, Martin, and Sanders (2003) observe, it was quickly realised that Web sites had a great potential to receive and process information, which would significantly enhance their value. This view is supported by Dill-

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