

Chapter I

E-Survey Methodology

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ABSTRACT

With computer network access nearly ubiquitous in much of the world, alternative means of data collection are being made available to researchers. Recent studies have explored various computer-based techniques (e.g., electronic mail and Internet surveys). However, exploitation of these techniques requires careful consideration of conceptual and methodological issues associated with their use. We identify and explore these issues by defining and developing a typology of “e-survey” techniques in organizational research. We examine the strengths, weaknesses, and threats to reliability, validity, sampling, and generalizability of these approaches. We conclude with a consideration of emerging issues of security, privacy, and ethics associated with the design and implications of e-survey methodology.

INTRODUCTION

For the researcher considering the use of electronic surveys, there is a rapidly growing body of literature addressing design issues and providing laundry lists of costs and benefits associated with electronic survey techniques (c.f., Lazar & Preece, 1999; Schmidt, 1997; Stanton, 1998). Perhaps the three most common reasons for choosing an e-survey over traditional paper-and-pencil approaches are (1) decreased costs, (2) faster response times, and (3) increased response rates (Lazar & Preece,

1999; Oppermann, 1995; Saris, 1991). Although research over the past 15 years has been mixed on the realization of these benefits (Kiesler & Sproull, 1986; Mehta & Sivadas, 1995; Sproull, 1986; Tse, Tse, Yin, Ting, Yi, Yee, & Hong, 1995), for the most part, researchers agree that faster response times and decreased costs are attainable benefits, while response rates differ based on variables beyond administration mode alone.

What has been lacking in this literature, until recently, is a more specific and rigorous exploration of e-survey methodology. In this chapter, we

focus on the methodological issues associated with designing and conducting e-surveys. We include additional issues relating to these methodological areas gathered from our own experience in conducting e-survey research. We begin by defining the domain of electronic surveys, and develop a typology of the various e-survey approaches that are possible with today's technology. This typology is important because methodological issues can vary depending on whether we are employing an e-mail, Web-based, or point-of-contact survey; yet these different approaches have frequently been treated synonymously in the literature (e.g., Simsek & Veiga, 2000; Stanton, 1998). We then review what we know and what we do not know about e-survey data reliability, validity, and generalizability. Finally, we consider several emerging concerns associated with designing and implementing computer-based surveys including survey security, ethical issues associated with how and when data is captured, and privacy concerns. A version of this chapter was presented at the 2000 Academy of Management Annual Meeting (Corley & Jansen, 2000).

We define an electronic survey as one in which a computer plays a major role in both the *delivery* of a survey to potential respondents and the *collection* of survey data from actual respondents. We use the term mixed-mode surveys (c.f., Schaefer & Dillman, 1998) to describe surveys that offer alternative response formats (e.g., e-mail solicitation with an option to print and return a paper-and-pencil survey).

A Typology of E-Surveys

One can categorize the collection of survey data via computers into three main categories based upon the type of technology relied upon to distribute the survey and collect the data: (1) point of contact; (2) e-mail-based; and (3) Web-based. Disk by mail was once a common method (Higgins, Dimnik, & Greenwood, 1987; Witt & Bernstein, 1992), but it is used less so now.

Point-of-contact involves having the respondent fill out an e-survey on a computer provided by the researcher, either on-site or in a laboratory setting (Synodinos, Papacostas, & Okimoto, 1994), for organization members who do not use computers in their jobs (Rosenfeld, Booth-Kewley, Edwards, & Thomas, 1996). Point-of-contact surveys have also been popular among researchers wishing to have tight control over the context of the study (i.e., lab based).

The second electronic data collection technique is the e-mail-based survey. E-mail-based surveys are generally defined as survey instruments that are delivered through electronic mail applications over the Internet or corporate intranets (Kiesler & Sproull, 1986; Sproull, 1986). E-mail-based surveys are generally seen as being delivered more cheaply and faster than traditional paper-and-pencil surveys; however, they still require the researcher to manually code the data into a database after receiving completed surveys. Researchers have extensively used e-mail surveys within corporations and online user groups (Corman, 1990; Kiesler & Sproull, 1986; Mehta & Sivadas, 1995; Sproull, 1986; Thach, 1995).

The final form of electronic survey, and the technique currently receiving the most interest from researchers (e.g., Stanton, 1998; Zhang, 2000), is the Web-based survey. They are generally defined as those survey instruments that physically reside on a network server (connected to either an organization's intranet or the Internet), and that can be accessed only through a Web-browser (Green, 1995; Stanton, 1998). Because a Web-based survey is actually created through the use of a coding language, the potential exists for the survey to change based upon previously answered questions (e.g., providing a different set of questions based on reported tenure in the organization). In addition, these surveys can use animation, voice, and video to enhance the user's experience. For example, one study provided a sidebar of events that occurred in the year of the respondent's self-reported birth date to assist the

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