

Chapter XX

Home-Based Telecommuting: Technology's Role

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ABSTRACT

This chapter examines the role of technology in home-based telecommuting (HBT), and the implications of this role for organizational IT departments and for managers of telecommuting employees. Specifically, it addresses the question: Does technology both facilitate and hinder home-based telecommuting? Although technology enables HBT, it has also been blamed for HBT's slow growth. To clarify the role that technology currently plays when employees telecommute, we describe a recent study that investigated the relationship between different forms of organizational support (classified as technology-related, somewhat technology-related and non-technological) and employees' reactions to HBT. Two technology-related support variables and manager's trust (a non-technological support) were found to have broad impact on employees' reactions to HBT; so, while technology plays a crucial role and thus could be a major factor in HBT's slow growth, we argue that HBT is better understood within a multi-factor rather than a single-factor framework. Other implications are that organizations should emphasize providing IT support and appropriate technology for telecommuters, as well as HBT-related training for non-telecommuting co-workers and managers of the telecommuters.

INTRODUCTION

Since the 1980s, there have been predictions that a high proportion of workers will work in their electronic cottage (Braus, 1993; Handy, 1995; Konradt, Schmook, & Mälecke, 2001; Potter, 2003; Toffler, 1980). Yet the reported proportion of remote workers remains far below the predictions, typically below 10% (European Teleworking Online, 2000; Flexibility Ltd, 2002; McClure, 2001; Scott & Timmeran, 1999). The reasons for this discrepancy are still unclear, although the figures do vary somewhat, as do the definitions used for gathering the data (Haddon & Brynin, 2005; Lindorff, 2000; Mokhtarian, Salomon, & Sangho Choo, 2005; Sullivan, 2003). A large body of literature has addressed the question of why the expected shift from working in the office to home-based telecommuting (HBT) has not occurred.

BACKGROUND

Early research drew attention to resistance to home-based work from supervisors, managers, and employer organizations (Olson, 1982; Zuboff, 1982). Attempts to respond to managerial concerns about losing control led to calls for more trust in HBT employees, more use of management-by-results for HBT (Konradt et al., 2001), and continuing research into effective HBT control strategies (Kurland & Cooper, 2002; Snell, 1992).

The focus then shifted from the managerial side to the prospective HBT employees. Studies established the importance of personal characteristics, such as autonomy or self-efficacy (Belanger, 1999; Katz, 1987; Raghuram, Wiesenfeld, & Garud, 2003), individual coping strategies (Konradt et al., 2001) and job factors (Raghuram, Garud, Wiesenfeld, & Gupta, 2001) for increasing the likelihood of employees adopting HBT. It is also now recognized that HBT is constrained by the availability of suitable space in the home (Green,

Strange, & Trache, 2000) as well as the characteristics of the person's household (Baruch, 2000).

Increasingly, the literature has reflected a recognition that a broader, multi-factor approach is more appropriate for understanding HBT than the study of single factors, because of the complexity of the HBT situation (Bailey & Kurland, 2002; Baruch, 2000; Depickere, 1999; Pearlson & Saunders, 2001; Raghuram et al., 2001; Siha & Monroe, 2006). This is also consistent with the recent emphasis on more complex approaches to the study of organizations (Eisenhardt, 2000; Lewis, 2000). Typical of this broader approach to HBT is the summary of research related to the slow growth of telecommuting by Baruch (2000). He concluded that the appropriate variants for each of four factors (the telecommuting interface, job, individual, and organization) need to be present *simultaneously* for telecommuting to be effective. The absence of the appropriate variants for any one of these components undermines effective telecommuting, thus slowing the spread of this innovation. Within Baruch's framework, technology is treated as part of the telecommuting interface and job factors, rather than as a separate factor.

The Role of Technology

In contrast to this broader approach, the possibility has recently been raised that the technology being used in the home when telecommuting is the major determinant of the slow growth in the numbers who work from home. That this is being argued now is somewhat surprising, as the technology available for HBT has improved, and there has also been an increase in the expertise related to information and communications technologies (ICTs) within working populations in developed countries. That technology is important in HBT was demonstrated by Hartman, Stoner, and Arora (1992), who reported that satisfaction with HBT was correlated with satisfaction with technological considerations such as long computer response

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