8 Adoption of Technologies for Virtual Work

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8.1 Introduction

A prerequisite for the success of a virtual organization is use of the technology that enables people to communicate and collaborate with one another across time, distance and organizational boundaries. In this chapter, we examine factors that motivate and enable members of the organization to use the information and communications technology (ICT) that underpins the virtual organization. The research was guided by Ajzen’s theory of planned behavior [1] which, when applied to technology use, enables us to distinguish between four different sets of influences: beliefs about outcomes of use, social influences on use, perceived control of use and external factors that facilitate or obstruct use (see Fig. 8.1.).

Fig. 8.1. The theory of planned behavior [1] applied to technology use
Attitudes to technology use may be, to a greater or lesser degree, positive, negative or neutral. Fig 8.1 shows that attitudes reflect beliefs about the outcomes of using technology. Beliefs which might be associated with attitudes to using ICT in the virtual organization include that use of the technology might improve job quality, enhance productivity or improve the effectiveness of knowledge sharing.

Social or normative pressures may arise when potential users perceive that their managers, coworkers, professional colleagues, or even parts of the organization want them to use the technology. They influence use to the extent that these external norms motivate the potential user to use the technology.

Perceived control of use can have a positive, negative, or neutral effect on use. Potential users’ perceptions that they do not have the tools, skills or support necessary to use a technology may act as barriers to use, while positive perceptions of control may have the opposite effect. When perceived controls influence use they may do so because the more that people who perceive they have the tools, skills and support necessary to use technology, the more they use it. Perceived control may reflect the fourth influencing variable in the model, actual control, which encompasses both the users’ actual ability (which may be based on past use of the same or similar systems) and actual provision by the organization of tools and support. The arrow between actual control and use indicates that, even in the presence of positive perceptions of control, lack of ability, tools or infrastructure will prevent use.

8.2 Technologies for the Virtual Organization in Unit 2

The ICT available to support virtual work in Unit 2 was very limited as our project began. The only ICT available for communication and collaboration were the telephone (terrestrial national and international carriers), Skype (for voice over IP, VOIP), e-mail, and Unit 2’s intranet, the Development Information Portal (DIP). Administrative staff and consultants did not have corporate mobile phones (and were not provided with corporate mobile phones at any stage during the study).

When we first spoke with the Director of Unit 2, he pointed to three technologies that he believed would support his Global Network Organization (GNO) strategy: Skype, the DIP, and a discussion forum that was yet to be developed. While an early version of the DIP was available as we began our research, the DIP was modified in two significant ways during the study period: the underlying technology used to deliver the material in