Chapter IX

USE IT: The Theoretical Framework
Tested on an Electronic Prescription System for General Practitioners

Ton A. M. Spil
University of Twente, The Netherlands

Roel W. Schuring
University of Twente, The Netherlands

Margreet B. Michel-Verkerke
University of Twente, The Netherlands

Abstract

This chapter is the heart of the book and reflects five years of research on diffusion of e-health systems. The resulting USE IT model has four determinants that have to be balanced in assessing the diffusion and use of information systems. Resistance is defined as the degree to which the surroundings and locality negatively influences the users of IT and the degree to which IT-users themselves are opposing or postponing the IT change. The result of this study was that opposite to what was hypothesized,
resistance was not the main determinant of success. It is a cumulative consequence of effects of the other three determinants with a little touch (initial attitude) of its own. Relevance is the degree to which the user expects that the IT-system will solve his problems or help to realize his actually relevant goals. Micro-relevance is the degree to which IT-use helps to solve the here-and-now problem of the user in his working process. The (job) relevance of the EPS to the working process of the professional was in all 56 cases the most important determinant. Requirements are defined as the degree to which the user needs are satisfied with the product quality of the innovation. Analysis of this determinant showed that a user-provider contract on requirements would help bridging the information gap between user and designer of IT in healthcare. Resources are defined as the degree to which material and immaterial goods are available to design, operate and maintain the information system. The presumption was made that this would be the least important determinant but the study did not confirm this. It showed that a thorough ex ante check on resources is still necessary.

**Introduction**

In this contribution we will try to unravel the complexity of implementing information systems in healthcare (Berg, 2001; Southon et al., 1999; Walley & Davies, 2001). We look at successful change management from a user perspective. Determinants on other levels may also be important, such the level project, the level of the organization, or even the level of the system (Schuring & Spil, 2004). On the system level, reimbursement structures, regulations and the existence of standards may have an explanatory role. On the organization level, the previous strategic choices, strategic priorities, size, and location of the organization and many other factors may play a role. On the project level, resources, project management, and so forth will play a role. No explicit attention on these factors will be given in this contribution.

Thornett (2001) described benefits as improved quality of care, disease prevention, and disease management of chronic physical illnesses. Why, then, do these systems not diffuse into the health organizations? The adoption of IT in healthcare has increased, which underscores the importance of user requirements (Beuscart-Zephir, Brender, Beuscart, & Menager-Sepriester, 1997). In
Performance Analysis of Compression Techniques for Chronic Wound Image Transmission Under Smartphone-Enabled Tele-Wound Network
www.igi-global.com/article/performance-analysis-of-compression-techniques-for-chronic-wound-image-transmission-under-smartphone-enabled-tele-wound-network/224000?camid=4v1a