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# Understanding the Hidden Dissatisfaction of Users Toward End-User Computing

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#### ABSTRACT

The objective of this research is to examine satisfied and dissatisfied end-users in an organization to determine if they hold different technological frames of reference towards end-user computing (EUC). This research examines the effectiveness of the computer systems at the organization, while at the same time measuring the level of end-user satisfaction with the EUC environment. Grounded theory techniques for qualitative analysis of interviews were used to assess the technological frames of reference of selected highly satisfied and highly dissatisfied users. While analysis of the satisfaction surveys alone indicated that the user population was generally satisfied with their EUC environment, follow-up interviews and service quality gap analysis highlighted several individual support areas that required remedial action. In addition, satisfied and dissatisfied users held different views or technological frames of reference towards the technology they used. Their frames of reference affected their expectations of the technology, their interactions with the MIS support staff, and their utilization of the technology on a day-today basis.

Keywords: end-user computing, cognitive structures, end-user support, user satisfaction

#### **INTRODUCTION**

This research examines the different views and perspectives of individuals in an organization toward end-user computing (EUC) and EUC support, and how those views can affect end-user satisfaction. End-user satisfaction has long been used as an important surrogate measure of information system success (Zmud, 1979; Doll and Torkzadeh, 1988; DeLone and McLean, 1992; Torkzadeh and Doll, 1993; Buyukkurt and Vass, 1993; Henry and

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Stone, 1994; Guimaraes and Igbaria, 1994; Mirani and King, 1994; Seddon, 1997; Blili et al., 1998; Foong, 1999; Mahmood et al., 2000; Aladwani, 2002, Shaw et al., 2002). End user satisfaction is a perceptual or subjective measure of system success, serving as a substitute for objective determinants of information systems effectiveness (Ives et al., 1983).

We are interested in how an individual's view or perspective can affect end-user satisfaction. In social cognitive research, views and perspectives, also known as frames of reference, have been used to explain an individual's mental processes. A few studies in the IS area have been conducted to understand the views or attitudes individuals hold towards technology (Bostrom and Heinen, 1977, Dagwell and Weber, 1983; Noble, 1986; Pinch and Bijker, 1987; Kumar and Bjorn-Anderson, 1989; Jawaher and Elango, 2001). The term "technological frame of reference" was introduced by Orlikowski and Gash (1994) to describe the underlying assumptions, expectations, and knowledge that people have about technology.

In the current study, we extend the idea of technological frame of reference to assess the views users hold towards EUC. In particular, we are interested in determining if satisfied and dissatisfied users hold different views of the technology, and ultimately if those different views influence their satisfaction with that technology. In particular, we examine the effectiveness of end-user support in an organization, the satisfaction of end-users with that support and the technological frames of reference of those users. By concentrating on the differences between satisfied and dissatisfied end-users, we hope to deepen our understanding of end-user satisfaction and dissatisfaction so as to identify contributory factors that lead to dissatisfaction.

We use a combination of quantitative and qualitative analysis in our case study. An instrument measuring end-user satisfaction was used to assess the satisfaction of individual users with the overall EUC environment, and service quality gap analysis was used to measure the effectiveness of the support organization in the organization. Grounded theory techniques (Glaser and Strauss, 1967) were used in the qualitative analysis of interviews to assess the frames of reference of selected satisfied and dissatisfied users.

## CONCEPTUAL FRAMEWORK AND RESEARCH MODEL

The objective of this research is to examine satisfied and dissatisfied end-users in an organization to determine if they hold different technological frames of reference towards end-user computing (EUC). Can their different frames of reference be used to explain their different satisfaction levels? What is the relationship between satisfaction with end-user support and satisfaction with the overall end-user computing environment? The research model is presented in Figure 1.

#### **Measuring EUC Satisfaction**

Several different tools have been developed to assess end-user computing satisfaction. Two validated instruments commonly used to measure satisfaction with end-user computing are the Doll and Torkzadeh (1988) instrument and the Ives, et al. (1983) instrument. These instruments can be used in one of two ways: as a straightforward measurement of the level of satisfaction within an organization, or as

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