Chapter 15

Getting the Spirit of Office Technologies! Does the Internal Organization Environment Support or Constrain?

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The relationship between Advanced Information Technologies (AIT) and organization is complex. Several theories and approaches try to get grip on this complex relationship. Adaptive Structuration Theory (AST) (DeSanctis and Poole, 1994) is one of them. It introduces the concept of spirit of AIT as an important determinant of AIT appropriation. AIT with a clear, coherent spirit will lead to a high level of AIT appropriation. But what about the role of the internal organizational environment? Does this constrain or support the role of the AIT’s spirit regarding AIT appropriation?

This paper presents a study that aims to find an answer to this question. Three hypotheses were formulated and tested in four offices where employees used office technologies. Results confirm that a clear spirit is positively related to the level of appropriation as distinguished by DeSanctis and Poole (1994) and Poole and DeSanctis (1990). The results also make clear that this relationship is more positive among users who experienced a low level of change in the internal organizational environment along with the office technology implementation than among users who experienced a high level of change. Furthermore, the relationship is more positive among users with a low level of work autonomy than among users with a high level of work autonomy. This is not fully in line with our expectations. However, we think

an explanation is available. We suppose that the answer lies in the office technology development process. All office technologies in this study’s offices were probably developed without anticipating the changes that office technology implementations might bring about in the internal organizational environment and with the aim to build systems that “reconfirm” the current “restrictive” work procedures. This study’s results once again indicate that office technology and other organizational components are interrelated.

INTRODUCTION

The relationship between advanced information technology (AIT) and organization has been studied for decades, but still a lot of unanswered questions keep on sprouting. On the one hand this is due to technological developments that keep providing us with new questions; on the other hand, this is due to the lack of theories and approaches that are able to “cover” the complexity of the relationship between AIT and organization. Several theories have been presented that tried to deal with this complex relationship, and still new ones show up. Examples of theories are Sociotechnical Systems Theory (de Sitter, 1981, 1989; Passmore, 1988), task-technology fit perspectives (i.e. Jarvenpaa, 1989), social information processing perspectives (i.e., Fulk et al., 1987), and Adaptive Structuration Theory (AST) (DeSanctis and Poole, 1989, 1990, 1994). Especially AST seems to be a promising approach in research on AIT in organizations (i.e., Chin et al., 1997) because it assumes that effects of AIT depend to a large extent on how people use AIT, instead of assuming that effects of AIT are a function of AIT itself. AST tries to explain why differences in outcomes occur, even when the same type of AIT is used. AIT is not only considered as represented by its technical aspects or structural features, but also by its non-technical aspect, or its spirit. It is this concept of spirit of ICT we want to pay attention to in this paper. In our view this concept of spirit can explain why some AIT, although technically perfect, does not lead to adequate use, and other AIT does. This aspect of spirit may put a new light on the relationship between AIT and organization, and may help us to better understand how people adapt to new AIT.

Chin et al. (1997) notice that AST is not used frequently compared to the larger body of the literature on Electronic Meeting Systems (EMS), although it was originally developed in that context. They partly attribute this to the complexity of AST and to the time- and labor-consuming methods of measurement as proposed by the developers of AST. But its frequency of use is not only low in research on EMS, but also in research on other AIT in organizational settings as well.
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