An Investigation of the Relationship Between Managerial Personality Type and Computer Use

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The direct use of computers by managers is bringing about one of the most dramatic changes in managerial work style that has ever been seen. This paper describes some of the results of a study of nearly one hundred fifty managers. It explores the interaction between managerial personality type according to the Jungian typology and computer use time. Significant results were found that indicate (contrary to expectations): 1) Feeling types spend more time using computers than do Thinking types, and 2) Intuitive types may also spend more time using computers than do Sensing types.

Background

The personal characteristics of the MIS user have long been thought to play an important role in MIS implementation and utilization, as is evidenced in the classical MIS research frameworks proposed by Mason and Mitroff (1973), Lucas (1973, 1975), Chervany, Dickson, and Kozar (1972), and Ives, Hamilton, and Davis (1980). The aforementioned paradigm shift to end user computing has resulted in numerous studies of end user characteristics, such as those by Amoroso (1992), Harrison and Rainer (1992) and Schiffman, Meile, and Igbaria (1992).

Of the many personal characteristics that have received attention, personality is one that has often been mentioned as being potentially important (Mason & Mitroff, 1973; Bariff & Lusk, 1977; Keen & Bronsema, 1981; Kaiser & Bostrom, 1982; Lederer & Smith, 1988; Mawhinney & Saraswat, 1991; Pocius, 1991). One of the more widely used personality constructs in MIS research is the Jungian typology (Jung, 1923).
Two-Dimensional Personality Types

Figure 1: Two-Dimensional Personality Types

Extroverts tend to be oriented toward the outer world of people, while Introverts tend to be more comfortable in the inner world of ideas. The Sensing/Intuition dimension deals with how a person perceives information. The Sensing type has a preference for hard facts, whereas the Intuitive type tends to look for relationships. The Thinking/Feeling dimension deals with how a person makes decisions. The Thinking type tends to make decisions based on logic and analysis, while the Feeling type tends to make decisions based on emotions and personal values. The Judging/Perceiving dimension relates to how a person deals with the world. The Judging type tends to prefer a planned, orderly life, while the Perceiving type tends to prefer a more spontaneous and flexible life. Although a given individual would typically use all eight factors to some degree, usually one factor in each pair tends to be developed to a greater extent than the other. When these dominant preferences from the four dimensions are combined, it results in one of sixteen different personality types.

Most MIS-related research has focused specifically on the Sensing/Intuition and Thinking/Feeling dimensions. The Sensing/Intuition dimension can be viewed as a “data input” mode for the decision making (“processing”) that takes place in the Thinking/Feeling dimension. When these two dimensions are juxtaposed, it results in four personality types:

- Extroversion (E) - Introversion (I)
- Sensing (S) - Intuition (N)
- Thinking (T) - Feeling (F)
- Judging (J) - Perceiving (P)

The more technically-oriented personnel in data processing have long been thought to be predominantly STs, while managerial users have been thought to be predominantly NFs. These two types are complete opposites. They have conflicting methodologies for decision making and different needs for information. This results in potential conflicts in designer/user relationships in systems design (Mason & Mitroff, 1973; Kaiser & Bostrom, 1982). However, empirical research has not generally supported this hypothetical designer/user personality type difference. Keen and Bronsena (1981) and Kaiser and Bostrom (1982) have shown that both managers and data processing personnel tend to be predominantly Thinking types, rather than Feeling types. Although the results for the Sensing/Intuition dimension are not quite as consistent, in most cases the majority of both users and analysts have been Intuitive types. The studies of data processing personnel by Lyons (1985) also consistently showed the Intuitive types to be in the majority.

The Hypotheses

This research explored the utilization of computers by managers. Reported computer use time in hours per week was used as a measure of utilization. Although it would be more desirable to measure the “quality of managerial decision making” as the dependent variable, this is very difficult to accomplish in a field setting. Several authors have suggested that system use has been an acceptable surrogate (Lucas, 1975; Ives, et al., 1980; Ives, Olson, & Baroudi, 1983). Studies of personal computer use by Snitkin and King (1986) and Gremillion and Hopkins (1986) utilized self-reported use times as variables.

Personality type of the user was the independent variable. As described in the preceding section, traditional theory suggests that the Sensing and Thinking types would be attracted to the highly technical data processing profession (Kaiser & Bostrom, 1982). Sensing types tend to be data-oriented and prefer to work with facts. Thinking types tend to base their judgments on impersonal analysis and logic. Myers (1962) suggested that the antithetical Intuitive and Feeling personality types would be attracted to work which involves interactions with people, such as teaching and counseling. Intuitive types would rather deal with possibilities and relationships than known facts. Feeling types tend to base their judgments on personal values. A logical consequence is that the ST personality type would tend to be attracted to computers, while the extremely opposite NF personality type would be more attracted to other activities. This results in the following hypotheses:

H₁: Sensing types will use computers more than will Intuitive types.
H₂: Thinking types will use computers more than will Feeling types.
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