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ITP4814

Personality Type and the Use of Information in Decision Making: An Exploratory Study

Dr. Karen S. Nantz and Dr. Barbara E. Kemmerer
School of Business, Eastern Illinois University
Charleston, IL 61920
cfksn@eiu.edu

BACKGROUND

Cognitive style is the way that people process and analyze information and arrive at decisions. Simon defined cognitive style as the characteristic, self-consistent mode of functioning which individuals show in their perception and intellectual activities. (Simon, p. 72) Volkema and Gorman noted that cognitive style is used to describe differences in the ways that individuals gather and process data. (p. 106)

A number of factors influence how people make decisions including the amount of information presented, the format of information, how information is gathered, and whether the decision will be group or individually-based. Early studies on cognitive style tended to characterize style as simple or complex, field dependent versus independent (Witkin et al, 1977), or analytic versus heuristic. As Ruble and Crozier (1990) point out, comparison of results was difficult since each represented different constructs. In addition, several studies have reported inconsistent results. Some systematic cognitive styles prefer more information while others prefer less (Rittenberg, 1973),

Davis et al. (1987) tested if the format and design of data affected the ability of managers to make decisions. They concluded that managers with certain decision-making styles can make more effective decisions with one or more report designs.

In recent years, cognitive style research has focused on the work of C.G. Jung through the interpretation by Isabelle Myers and Katherine Briggs. Jung theorized that the theory of psychology types could be understandable and useful in describing how individuals prefer to use their perception and judgment. (Myers et al., 1998) Myers and Briggs expanded Jung's theory to create the Myers-Briggs Type Indicator.

The MBTI is a personality inventory that measures four dimensions of psychological preference. The four dimensions are introversion/extroversion, sensing/intuition, thinking/feeling, and judging/perceiving.

Each of the four bipolar dimensions combines to produce 16 types—a four-letter code that indicates the aspects of the personality that individuals are most comfortable using as they deal with the world.

The MBTI is a self-administered paper and pencil instrument. According to the Center for Applied Psychological Testing (CAPT), millions of individuals have completed the MBTI with over 40% of them being in business. The MBTI has been tested in counseling and psychotherapy, education at all levels, career counseling, and in organizations. Among the uses in organizations include improving communication, dealing with conflict, enhancing problem solving and decision making, planning and implementing organization change, managing stress, team building, leadership building, and analyzing organizational cultures (Myers et al, 1998.)

A full analysis of the research on the MBTI is beyond the scope of this paper. Many studies have used the MBTI to assess decision making. The Sensing/Intuition dichotomy has received particular attention. (Agor, 1985; Agor, 1983; Agor, 1984). Additional studies have addressed the thinking and feeling dimension of the MBTI. Ferguson and Fletcher (1987) noted that there is a positive association between the T-F scale and cognitive complexity. Feeling types are more likely to use personal values while thinking types more likely to deal with facts and figures. Kerin and Slocum (1981) found that thinkers requested more quantitative data while there was no difference in the use of subjective data among thinking and feeling types. But as Gardner and Martinko (1996) noted in a major review of the MBTI, one of the research gaps is assessing strategies that decision makers use in selecting objective versus subjective factors in making decisions. The Thinking/Feeling dimension assesses this part of decision making.

The Thinking/Feeling Dimension

The thinking/feeling dimension addresses how individuals make decisions. A thinker is characterized by

- Analytical
- Using cause and effect reasoning
- Solve problems with logic
- Strive for an objective standard of truth
- Reasonable
- Can be "tough-minded"
- Fair—wants everyone treated equally

Thinkers look at logical consequences of a choice. They mentally remove themselves from the situation in order to be objective. They try to critique and analyze to identify what's wrong so the problem can be solved. Their goal is to find a standard or principle that can be applied in all similar situations.

The feeler is characterized by

- Empathy
- Guided by personal values
- Assess impacts of decisions on people
- Strive for harmony and positive interactions
- Compassionate
- May appear "tender-hearted"
- Fair—wants everyone treated as an individual

Feelers like to consider what is important to them and others. They mentally place themselves into situations so they can identify with others. They like appreciating and supporting others. One of their goals is to create harmony and create each individual as unique (Myers, 1998).

METHODOLOGY

In order to test whether decisions follow a person's thinking/feeling dimension, the researchers created a case based upon a manufacturer of refrigerators. Participants were asked to make select one of five candidates for the position of plant manager. The case included specific aspects that addressed both the thinking and feeling dichotomies. Case

information included background of the community, history of the company, product descriptions, credential summaries of the candidates, future goals of the CEO, decision-making styles of the candidates, and quantitative data such as ratings on personality dimensions, a climate survey, interviews, productivity and market share information. The candidate profiles were intended to test participant decision-making processes by ensuring that no one candidate could be easily identified as the top performer. Participants were also informed that candidates were given fictitious names. In addition, to further control for possible gender and age effects, all candidates were male and no ages or specific dates were given. Neither race nor ethnicity was identified.

The study was conducted at a state-supported public university in the Midwest. Participants were undergraduate majors in the School of Business enrolled in Management Information Systems (N=76). The participants were juniors and seniors who have been admitted to the School of Business and who have completed an undergraduate introduction to management course in the business core. Students were given extra credit for participating in the study and were required to sign a standard consent form.

The research was conducted in two major phases. First, students were administered the MBTI which was hand scored by a graduate assistant. Neither researcher had knowledge of the results of the inventory. THE MBTI was administered at the semester midpoint. Students were not given the results of the MBTI, although they were told that they could review the results with the instructor at the end of the semester. The case was administered approximately three weeks later. Students were given background information about the community and the company prior to the in-class case analysis of the candidates. Students had seventy-five minutes to review candidate credentials and complete the case questions.

Analysis of the data involved both a qualitative and quantitative data analysis process similar to that employed in focus group research (Krueger, 1998). Ten student case responses were selected to identify themes or topics that were used to make the decision concerning the plant manager. This process was conducted independently by the researchers. Data recording sheets were then developed which included the themes or topics previously identified, student name, candidate selected for the position, and indication of thinking or feeling type. Subsequently, each case response was read twice to determine the frequency of responses of themes across all students and the process that was employed in rendering a final decision. For example, if a student developed a rating system to summarize data, that process was noted. Spaces were also available to note any unique comments that a given student might have added. After all cases were read, frequency tables were developed by case themes. Following this process, students were identified by thinking or feeling dimension. Frequencies of responses were then recorded according to the thinking and feeling dichotomies.

DISCUSSION OF THE RESULTS

Student Demographics. Seventy-six students completed both parts of the study. Students were juniors and seniors with 24 (31.6%) were female; 52 (68.4%) were male. Majors included Finance (29%), Management (33%), Marketing (25%), and other (13%). In this study 52.6% of the participants were thinkers and 47.4% were feelers.

According to Martin (1997), the U.S. population is equally divided with approximately 45-55% of the population being thinkers and 45-55% being feelers. Since the participants were all business majors, results were also compared with a management study conducted by Fleenor (1997) that found 52.6% of participants in a leadership development program were thinkers and 47.4% were feelers.

Research Question 1: What decision did the students make regarding the plant manager candidates?

Of the 5 candidates, 39.5% of students chose candidate #1 (Thinkers—17.1%, Feelers (22.4%). Candidate #2 was chosen by 25% of the students. The remaining 3 candidates were evenly distributed across the remaining 35.5%. No one candidate was clearly indicated by the students.

Table 1
Summary of Respondents' Use of Selection Criteria by Dimension

Criteria	Thinking	Feeling
Job Experience	37	28
Credential Summaries	27	28
Effect on Subordinates	22	28
Robotics and Technology	26	19
Decision-making Style	23	21
Union Experience	25	19
Personality Differences	18	14
Company Goals	15	15
Productivity	16	13
Education	13	9
# of Subordinates	11	11
Community	9	8
Team Experience	10	6
Profitability	8	8
Outside Life	8	7

Research Question 2: What information did the student use to solve the problem?

Table 1 shows the major criteria students identified when asked "How did you reach this decision? Document, in detail, the process you used to selected the plant manager. This includes the specific information you used to make your selection."

CONCLUSIONS AND FURTHER RESEARCH

In this exploratory study, the researchers were trying to assess if the T/F dimension of the MBTI had any effective on how students used information in a common case study.

1. The thinking/feeling dimension may not be an adequate indicator of whether an individual uses objective or subjective information in decision making, despite the fact that the dimension addresses how individuals make decisions.
2. Subsequent research will focus on the use of information based on the full MBTI profile and sufficient numbers of participants.
3. Much greater attention must be paid to providing a clear demarcation between objective and subjective information provided to the participants.

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