

From Our Readers

An Opinion. . .

Michael Ginzberg, in his article, "Key Recurrent Issues in the Implementation Process," published in Volume 5, Number 2, of the *MIS Quarterly*, identifies six generic implementation issues: (1) extent of project definition and planning, (2) organizational commitment to the project, (3) breadth of analysis, (4) user responsibility for system, (5) commitment to change, and (6) user ownership of system. This identification is based on a factor analysis of data from seventy-two statements assessed by thirty-five users of twenty-seven information systems. Thirty-eight of these statements are significantly associated with one of the six factors extracted by means of the factor analysis. On the basis of the set of statements associated with each factor, the above six issues are interpreted by Ginzberg as characterizing the respective factors.

Ginzberg presents his factor interpretations as relatively straightforward: "Indeed, each factor does appear to have a dominant theme. . ." (p. 48). This reader found the interpretations problematic, however. To explore this issue, a small validation exercise was conducted. The thirty-eight associated statements were randomly sequenced in a questionnaire (Illustration 1) administered to seven advanced graduate students in MIS. The students were asked to guess which of the six issues applied to each statement. The results were analyzed by considering a statement to be validated where a majority of the seven students associated it with its correct factor, and invalidated where a majority associated it with one factor *other than* the correct factor. Thus analyzed, a summary of the results appears in Table 1.

It is seen that interpretations of the six factors do appear to be problematic. Interestingly, the number of statements invalidated (11) approaches the number validated (12), and the sum of both (23) easily exceeds the no consensus cases (15). In a random assignment process the probability of a consensus of any kind is about 0.095. Hence the validations and invalidations are of statistical significance, and suggest that the six issues exist across the six factors.

Caution is apparently warranted in the interpretation of the balance of the Ginzberg article, especially in conclusions associated with the differential importance of the six issues to implementation success.

As a footnote, in a discussion with Ginzberg of the results of the validation exercise, we agreed that a second exercise might be usefully conducted. The possibility exists that more extended verbal interpretations of the factors, included in the exercise in addition to the present brief labels, might produce results more consistent with the original statement groupings. Should this be achieved, confidence in the reported research results might be reestablished.

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Illustration 1. Questionnaire

Six generic implementation issues are identified by Ginzberg ("Key Recurrent Issues in the MIS Implementation Process," *MIS Quarterly*, June 1981):

1. Extent of project definition and planning.
2. Organizational commitment to the project.
3. Breadth of analysis.
4. User responsibility for system.
5. Commitment to change.
6. User ownership of system.

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Each of the following statements (submitted to users of information systems for the purpose of describing the implementation process experience) is associated by Ginzberg with *one* of the six generic issues identified above (as a result of a factor analysis). For each, please guess which.

Statement	Issue Number
1. Predicting the way the system would fit into our work procedures was too complex to assess in advance of implementation.	1. _____
2. Though many problem areas were diagnosed, we were able to work first on those that were most critical.	2. _____
3. In retrospect, we should have better defined what we wanted before selecting a consultant.	3. _____
4. Our people were just too busy to participate much in problem diagnosis.	4. _____
35. I know this project met its goals, but we haven't collected any data to prove it.	35. _____
36. It's hard to say why we chose the consultant we did for this project.	36. _____
37. The consultant's commitment to seeing this project through was never in doubt.	37. _____
38. Changes in work routines and procedures were an important consideration in assessing the proposed system.	38. _____

Table 1. Summary of Validation Exercise

Issue Number	Statements Validated	Statements Invalidated	No Consensus	Totals
1	3	4	6	13
2	3	4	1	8
3	1	1	1	3
4	2	0	2	4
5	2	1	3	6
6	<u>1</u>	<u>1</u>	<u>2</u>	<u>4</u>
Totals	12	11	15	38

Key

Statements Validated: A majority (4) of the seven students associated the statement with its correct factor.

Statements Invalidated: A majority (4) of the seven students associated the statement with one factor *other than* the correct factor.

No Consensus: No majority (4) existed.