

INSTRUMENT AND METHODOLOGIES

SUMMARY

Organizational Engineering survey instrumentation (DecideX®, "I Opt™"), group consolidation methodologies (TeamAnalysis™), leader-group assessments (LeaderAnalysis™, OrgAnalysis™) and two person comparisons ("One-to-One™", TwoPerson Analysis™) are addressed in this validation study.

The subject of this study is a theory specified in the books *Organizational Engineering* (Salton, 1996) and in *The Managers Guide to Organizational Engineering* (Salton, 2000). The theory identifies behavioral outcomes arising from strategic information processing choices. Observable behavioral effects arising from measurements made using the survey instrument (see below) have been codified in computer programs. The output of these programs creates hypotheses that this study subjects to statistical validation.

In lay terms, *validity* is a line of reasoning providing systematic evidence that the subject of validation (instrument, methodology, etc.) really works in the dimensions tested. The professional definition of validity appearing in the *Standards for Educational and Psychological Testing* (1985)—usually referred to as the APA Standards—is as follows.

Validity is the most important consideration in test evaluation. The concept refers to the appropriateness, meaningfulness, and usefulness of the specific inferences from the test scores. Test validation is the process of accumulating evidence to support such inferences. (p. 9)

Both the lay and professional definitions require that the subjects of the study be defined. The instruments and methodologies addressed in this study are:

Survey Instrument

The basic data-collection instrument is a 24-question survey that is available under the trademarks of DecideX® and "I Opt™". Evaluation of the responses is accomplished by a proprietary algorithm. A copy of the instrument appears in Appendix 4.

TeamAnalysis™ Methodology

TeamAnalysis™ is a methodology that consolidates individual instruments using proprietary algorithms to obtain an overall representation of a group of people.

LeaderAnalysis™ Methodology

LeaderAnalysis™ and OrgAnalysis™ are trademarks for a methodology that consolidates individual instruments using proprietary algorithms to obtain an overall representation of a group of people. It then contrasts the individual group members and the group as a whole to a leader. The output is an assessment of divergences and synergies.

Two-Person Analysis™

"One-to-One™" and TwoPerson Analysis™ are trademarks for a methodology that consolidates two people. It uses proprietary algorithms to assess the probable divergences, synergies, opportunities and exposures inherent in a common, goal-directed relationship involving the people assessed.

Validation Issues

The evaluations, assessments, findings and validations made are confined exclusively to the above instruments and methodologies. Any other evaluative expressions of the overall theory of Organizational Engineering other than those specifically identified will require separate or supplemental validation.

Validation always occurs within a specified scope. An instrument that has been "validated" in a classroom is valid within that context.

It may or may not be valid in a larger context. This analysis addresses validation from data collected in field settings. It draws upon a body of data that was accumulated from all organizational types (e.g., non-profit organizations, corporations, institutions, government, etc.) and across a wide variety of industries within the United States of America. (This is specified more fully in Appendix 2.)

Similarly, validation of a tool at an individual level does not in any way imply that it is valid at a group level. In the case of this study, validation is tested on both an individual and group level where appropriate. It is incumbent upon the user to determine whether the instrument and/or methodology are validated for the purposes within which it is intended to apply.

In addition to scope, validity studies are confined by their focus. Validation of construct validity says nothing about predictive validity. In other words, a methodology may have a high construct validity but be useless in its ability to forecast outcomes into the future. This study has made an attempt to test Organizational Engineering against all accepted forms of validation. The reader can select those elements (or combination of elements) that are relevant to his or her interests.

Finally, portions of this study rely upon judgments of a panel of 50 experts. This is an accepted strategy that must be relied upon under certain conditions. The reader can review the qualifications of the panel in Appendix 3. The reader is encouraged to review this section to make certain that its composition is appropriate to the uses to which the reader intends to address.

The findings of the study are specified in the individual sections of this report. The reader should refer to those sections before making a judgment relative to their intended application.