

4.3. Hypothesis and Theoretical Background

One of the difficulties of investigating the interface between a decision maker and IS is that there is no well developed theory concerning that interface to guide the research. In such a situation, Block ⁽¹⁹⁹⁷⁾ recommends the use of a four-step theory-building strategy:

- (1) Formulate a general framework to guide research in the area.
- (2) Narrow the focus of the research by identifying the variables in the general framework which are relevant to the research question addressed.
- (3) Empirically investigate the relationships among the variables identified in step (2).
- (4) Revise the general framework based on the results of the empirical work in step (3).

In this project these four steps will be accomplished by:

- (1) Defining the User/System Interface in terms of a model proposed by Jenkins ⁽¹⁹⁹⁷⁾ to guide research in the area.
- (2) Using Bertin's theory regarding the design and use of information presentations to identify the variables in Jenkins's model which affect performance with an information presentation.
- (3) Investigating the relationships among the variables identified in step (2) with a set of interlocking experiments.
- (4) Conducting further research based on the findings of the studies in step (3) and revising the User/System Interface accordingly.