Chapter XXXVIII
Technology Acceptance Model
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BACKGROUND

The technology acceptance model (TAM) (Davis, 1989) measures perceived usefulness and perceived ease of use as predictors of a user’s intent to use computer technology, and their actual usage on the job. The measure first appeared in 1989, in an MIS Quarterly article by Fred Davis, and in a coauthored article in Management Science (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989). Extending the theory of reasoned action (Ajzen & Fishbein, 1980) to technology, perceived usefulness (U) is defined as “the degree to which a person believes a particular system would enhance his or her job performance.” Perceived ease of use (EOU) is defined as “the degree to which a person believes that using a particular system would be free of effort.” “Usage intentions” (BI) was measured through self-predicted future usage, and “user acceptance” was measured through self-reported current usage.

Although information technology is adopted to improve employee performance, these gains are often lost or diminished by users’ unwilling to accept and use the information system. Davis wanted to understand why users rejected or accepted information technologies, to better predict, explain, and increase user acceptance. The TAM model has since become one of the most established models for predicting user acceptance.

The 12-item, Likert-type TAM instrument is considered one of the most robust and parsimonious models for predicting user acceptance. After some introduction to the new technology, respondents are given the short TAM questionnaire. The model assesses end-user acceptance of a particular technology, by regressing the construct PU and PEU on usage intentions (BI), and eventually, on user acceptance (actual usage). Acceptance is predicted via the strength of the coefficient regression. The instrument is self-report, and takes about 10 minutes to complete. The model is outlined next.

RELIABILITY

Extensive research supports the technology acceptance model’s reliability and internal consistency. In the first year TAM was introduced, Davis was involved in two publications that outlined four studies that measured reliability and validity. In these first studies, the Cronbach alpha reliability coefficients for perceived usefulness ranged