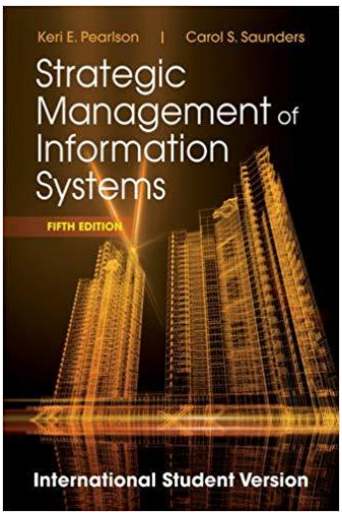

Pearlson K.E. & Saunders C.S. (2013). *Strategic Management of Information Systems* (5th ed). Hoboken, NJ: Wiley. pp.128-130

Technology Acceptance Model and Its Variants

To avoid the negative consequences of resistance to change, those implementing change must actively manage the change process and gain acceptance for new IS. To help explain how to gain acceptance for a new technology, Professor Fred Davis and his colleagues developed the Technology Acceptance Model (TAM). Many variations of TAM exist, but its most basic form is displayed on the right—hand side in Figure 4.9.

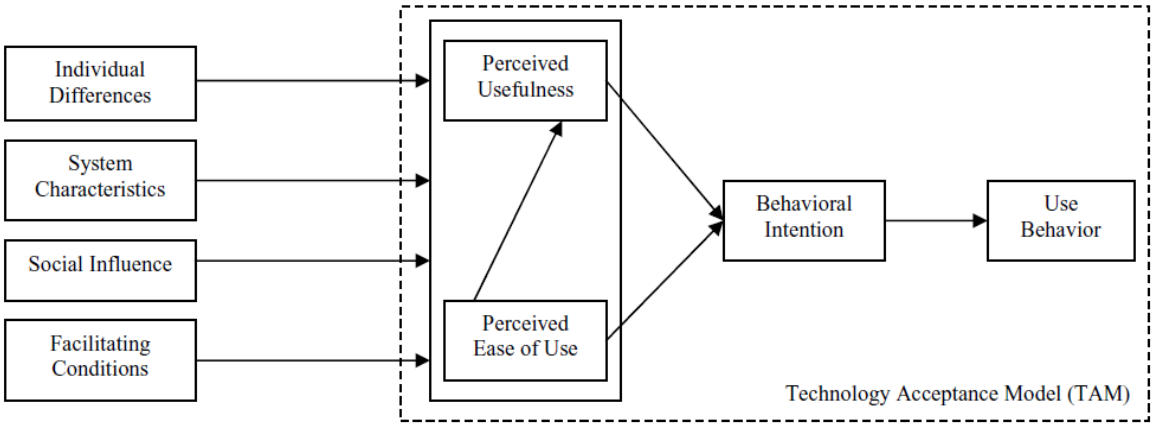

FIGURE 4.9 Simplified technology acceptance model 3 (TAM3).
Source: V. Venkatesh and H. Bala, "Technology Acceptance Model 3 and a Research Agenda on Interventions," *Decision Sciences* (2008), 39(2), 276.

TAM suggests that managers cannot get employees to use a system until they want to use it. To convince employees to want to use the system, managers may need to employ unfreezing tactics to change employee attitudes about the system. Employee attitudes may change if employees believe that the system will allow them to do more or better work [or the same amount of effort (perceived usefulness), and that it is easy to use. Training, (documentation, and user support consultants are external Variables that may help explain the usefulness of the system and make it easier to use.

TAM has many variants. For example, one variant considers subjective norms of (39) whereas another adds attitudes toward behaviors. (40) The Unified Theory of Acceptance and Use of Technology makes a valiant effort to integrate the many fragmented findings about TAM. (41) Another attempt to integrate the many findings is TAM3. (42) A simplified version of TAM3 is shown in Figure 4.9. The left-hand side of Figure 4.9 provides the four categories of determinants of perceived usefulness and perceived ease of use.

Specifically, they are individual differences (e.g., gender, age), system characteristics (such things as output quality and job relevance that help individuals develop favorable or unfavorable views about the system), social influence (e.g.. subjective norms}. And facilitating conditions (e.g., top management support). The interrelationships described in UTAUT and TAM3 are very complex. For example, although social influences are important, they are likely to be important only for older workers and women, and then only when they start using the system. The more complex models (UTAUT and TAM3) are useful for experts who are trying to take into account the nuances when trying to figure out the best way to implement systems. However, the parsimonious TAM model is clearly easier for practitioners trying to grasp the major issues involved in user acceptance.

TAM and all of these variants assume that system use is under the control of the individuals. When employees are mandated to use the system, they may use it in the short run, but over the long run the negative consequences of resistance may surface. Thus, gaining acceptance ofthe system is important, even in those situations where it is mandated.

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(39) V. Venkatesh and F. D. Davis, “A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies,” Management Science (2000), 45(2), 186—204.

(40) S. Taylor and P. Todd, “Assessing IT Usage: The Role of Prior Experience," MIS Quarterly (1995), 19(2), 561—570.

(41) V. Venkatesh, M. C. Morris, (1, B. Davis, and F. D. Davis, “User acceptance of information technology: Toward a unified View,” MIS Quarterly (2003), 27(3), 425—478.

(42) V. Venkatesh and H. Bala, “Technology Acceptance Model 3 and a Research Agenda on Interventions," Decision Sciences (2008), 39(2), 273—315.