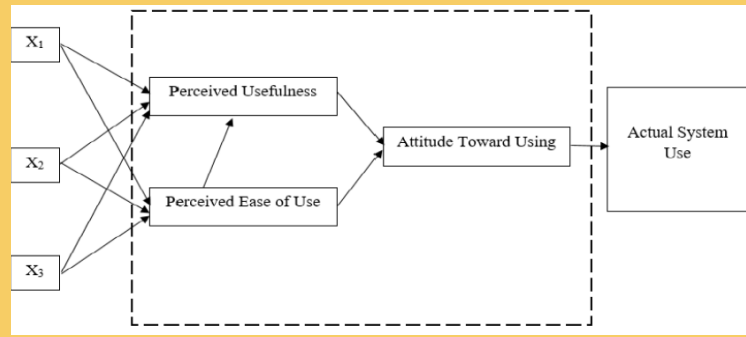


TECHNOLOGY ACCEPTANCE MODEL (TAM)

Used to determine technology acceptance among users

HISTORY

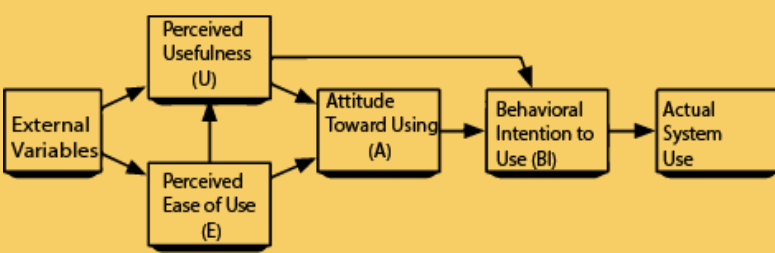
- Based on Fishbein and Ajzens' [1980] Theory of Reasoned Action
- Proposed by Fred Davis in **1986** to predict individual acceptance and use of IS/IT
- Perceived use (PU) and perceived ease of use (PEU) influence the attitude of a user toward a system



Original TAM Model (Davis, 1986)

Model refined in **1989**

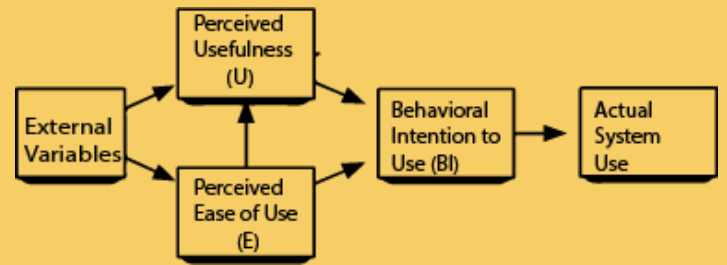
Davis, Bagozzi, and Warshaw added *Behavioral Intention*



Extension of TAM Proposed in 1989 (Davis et. al, 1989)

Final version refined in **1996**

Davis and Venketesh removed *Attitude Toward Using* from the model



Final Version of TAM (Davis and Venketesh, 1996)

EVOLUTION

2000

Technology Acceptance

Model 2 (TAM2)

Proposed by Venketesh and Davis

2003

Unified Theory of Acceptance and Use of Technology (UTAUT)

Proposed by Venketesh et. al

2008

Technology Acceptance

Model 3 (TAM3)

Proposed by Venketesh and Bala

ARTICLES

1. "A Technology-Enhanced Teaching Tool: Tracking Student Adoption and Performance" (Hooker et. al, 2009)
2. "User Acceptance of Hedonic Information Systems" (Van der Heijden, 2004)
3. "The Technology Acceptance Model: Its past and its future in health care" (Holden and Karsh, 2010)

DISCIPLINES

Health Care

Transportation

Communications

Computer Technology and IS/IT

Education

Business

CONTROVERSIES

Criticisms have been noted by Richard Bagozzi (2007) and Scott McCoy, Andrea Everard, and Brian M. Jones (2005).

- TAM does not account for essential determinants of decision and action.
- Model extensions have broadened, not deepened, the understanding of PU and PEU.
- TAM does not consider other factors of decision-making including: cultural, group, and social aspects.
- Much of TAM research is based on self-reported use data, which can be subjective.
- TAM may not be reliable among all cultures.

TAM in Ag Communications

Has been applied to Ag extension and precision Ag technology in other countries

Has been used to determine user acceptance of course management systems among agriculture business students

Could be used in Ag communications to determine user acceptance of new agriculture technology and communication systems

Resources

- Bagozzi, R. P. (2007). The Legacy of the Technology Acceptance Model and a Proposal for a Paradigm Shift. *Journal of the Association for Information Systems*, 8(4), 7th ser., 244-254. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.361.5863&rep=rep1&type=pdf>
- Davis, F.D. (1986). Technology Acceptance Model for Empirically Testing New End-user Information Systems Theory and Results. Unpublished Doctoral Dissertation, MIT.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319. doi:10.2307/249008
- Davis, F. D., Bagozzi, R., & Warshaw, P. (1989). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science*, 35(8), 982-1003. Retrieved from <http://www.jstor.org.proxy.mul.missouri.edu/stable/2632151>
- Davis, F. D., & Venkatesh, V. (1996). A critical assessment of potential measurement biases in the technology acceptance model: three experiments. *International Journal of Human-Computer Studies*, 45(1), 19-45. doi:10.1006/ijhc.1996.0040
- Ezaei-Moghaddam, K., & Salehi, S. (2010). Agricultural Specialists' Intention Toward Precision Agriculture Technologies: Integrating Innovation Characteristics to Technology Acceptance Model. *African Journal of Agricultural Research*, 5(11), 1191-1199. doi:10.5897/AJAR09.506
- Folorunso, O., & Ogunseye, S. O. (2008). Applying an Enhanced Technology Acceptance Model to Knowledge Management in Agricultural Extension Services. *Data Science Journal*, 7, 31-45. doi:10.2481/dsj.7.31
- Holden, R. J., & Karsh, B. (2010). The Technology Acceptance Model: Its past and its future in health care. *Journal of Biomedical Informatics*, 43(1), 159-172. doi:10.1016/j.jbi.2009.07.002
- Hooker, N. H., Shanahan, C. J., Rake, V., Francis, E., Popovich, C., & Dehoney, J. (2009). A Technology-Enhanced Teaching Tool: Tracking Student Adoption and Performance. *Review of Agricultural Economics*, 31(4), 963-983. doi:10.1111/j.1467-9353.2009.01475.x
- Lee, Y., Kozar, K. A., & Larsen, K. R. (2003). The Technology Acceptance Model: Past, Present, and Future. *Communications of the Association for Information Systems*, 12(50), 752-780. Retrieved from <http://aisel.aisnet.org/cais/vol12/iss1/50>
- Marangunić, N., & Granić, A. (2014). Technology acceptance model: a literature review from 1986 to 2013. *Universal Access in the Information Society*, 14(1), 81-95. doi:10.1007/s10209-014-0348-1
- McCoy, S., Everard, A., & Jones, B. M. (2005). An Examination of the Technology Acceptance Model in Uruguay and the US: A Focus on Culture. *Journal of Global Information Technology Management*, 8(2), 27-45. doi:10.1080/1097198x.2005.10856395
- Van der Heijden, H. (2004). User Acceptance of Hedonic Information Systems. *MIS Quarterly*, 28(4), 695-704. Retrieved from <http://www.jstor.org/stable/25148660>
- Venkatesh, V., & Bala, H. (2008). Technology Acceptance Model 3 and a Research Agenda on Interventions. *Decision Sciences*, 39(2), 273-315. doi:10.1111/j.1540-5915.2008.00192.x
- Venkatesh, V., & Davis, F. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*, 46(2), 186-204. Retrieved from <http://www.jstor.org.proxy.mul.missouri.edu/stable/2634758>
- Venkatesh, V., Morris, M., Davis, G., & Davis, F. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 425-478. Retrieved from <http://www.jstor.org/stable/30036540>