

T. KADYLA, J. FRANCIS, S.R. COTTEN, R.V. RIKARD, T.W. MAKKI, R. LAROSE, H. TSAI. **Extending the STAM: The role of habit in the acceptance of technology.** *Gerontechnology* 2016;15(suppl):39s; doi:10.4017/gt.2016.15.s.612.00 **Purpose** Few technology acceptance models posit that habit, or the automaticity in media behavior resulting from repeated behavior¹, should be included as a predictive factor of ICT adoption and use^{2,3}. The more automaticity in behavior, the lesser cognitive resources are used to contemplate perceived benefits (PB) and ease of use (EU) of behavior². We use a senior technology acceptance model (STAM)⁴ framework to investigate whether ICT habit mediates the relationship between both PB and EU with actual ICT use.. **Method** Data came from longitudinal surveys of residents in 19 independent and assisted living facilities (n=302), located in the Deep South of the USA. One-third of the participants received 8 weeks of ICT training. Our primary outcome was ICT use, assessed as the total number of online activities that participants enact at least once/month. Independent measures were PB, EU (lower score=more ease of use), and ICT habit. We controlled for study arm, type of living facility, age, and self-reported health status. Structure Equation Modelling (SEM) was used to assess 5-waves of panel data (collected over the course of 14 months). **Results & Discussion** SEM results show a positive direct effect between PB and actual ICT use ($\beta=0.557$, $p<0.001$). Similarly, initial results reveal a positive relationship between EU and ICT use ($\beta=-0.086$, $p<0.001$). When ICT habit was included into the path analysis the relationship between PB and actual ICT use was partially mediated by ICT habit ($\beta=0.309$, $p<0.001$). Additionally, the relationship between EU and ICT use was mediated by ICT habit ($\beta=-0.032$, $p>0.05$). Further, the pathway from PB & EU through ICT habit had a positive effect on ICT use ($B=0.849$, $p<0.001$). Our findings suggest that older adults' PB & EU are initially predictive of actual ICT behaviour, but -as ICT habits develop- these perceptions become less predictive for subsequent ICT use (*Figure 1*). Future ICT training programs should emphasize the development and assessment of ICT habits, as this may boost ICT use.

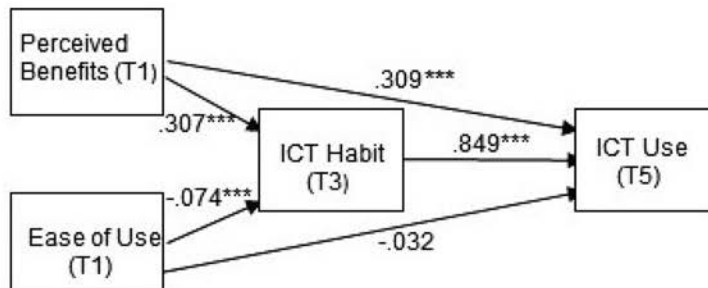
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*Figure 1. Results of Structure Equation Modelling (SEM);. ***= $p<0.001$; T1=pre-test; T3=5 months after pre-test; T5=6 months after T3*