Senior Consumers' Acceptance and Adoption of Self-Service Banking Technologies: An Australian Study

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Senior Consumers' Acceptance and Adoption of Self-Service Banking Technologies: An Australian Study

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The financial banking sector has rapidly embraced new self-service technologies so as to limit the traditional interpersonal service model to one where consumers interact directly with various forms of self-service banking technologies (SSBTs) including EFTPOS, ATMs, telephone banking and Internet banking. For senior consumers (over 50 years of age) research findings indicate that they are the least likely to adopt SSBTs (Australian Bureau of Statistics 2001-2002, McPhail & Fogarty 2004) even though the services appear to offer many benefits.

The purpose of the present study was to test an extended version of the technology acceptance model (TAM: Davis et.al., 1989; Dabholkar & Bagozzi 2002; Curran et.al., 2003; Wang et.al., 2003)) to determine factors that influence the acceptance and adoption of SSBTs by senior consumers. In its current form, TAM concentrates on two immediate precursors to the formation of attitudes towards SSBTs, namely specific beliefs concerning the perceived usefulness and perceived ease of use of SSBTs. Background research on the attitudes of senior consumers to technology led the authors to include a wider set of predictors in an extended TAM (e-TAM). Specifically, the model was extended by including self-efficacy, perceived risk, technology discomfort, and personal service contact as antecedents of the TAM constructs.

Research Method

The revised model was tested on data collected through a probability stratified random sample of 6000 Australian senior consumers using a self-administered questionnaire resulting in an effective response rate of 38% (2252). Usage of SSBTs ranged from 14% non-users to 71% high users (> 55% of banking transactions). Multi-item measurement scales were developed for each variable and rigorously tested through a pilot study.

Findings

The asymptotically distribution-free (ADF) method incorporated in the Amos 4.01 (Arbuckle & Wothke, 1999) structural equation modelling (SEM) software was used in a two-step procedure to test the full e-TAM (i.e., measurement and structural components). The model fitted the data after modifications involving the inclusion of additional pathways with $\chi^2 = 972.9$. $df = 232$, (p < 0.00), adjusted GFI = 0.92, RMSEA = 0.038.

Discussion and Implications

The current research extends our understanding of factors influencing seniors' acceptance of SSBTs with the model explaining 84% of the variance in perceived ease of use, 61% of the variance in perceived usefulness, 77% of the variance in attitude, and 73% of the variance in behaviour intention. This extension of the TAM assists in understanding the antecedents to perceived ease of use and perceived usefulness and significantly increases the predictive validity of the overall model. These findings suggest that if we increase seniors' feelings of self-efficacy towards SSBTs and reduce their perceptions of risk and their levels of discomfort with technology, they will be more inclined to adopt SSBTs. Other data to emerge from the present study suggests that this can best be achieved by improving their SSBT literacy and confidence through hands-on experience with computers and SSBTs.