Studies on the Adoption and Usage of Mobile Health Services by Elderly Users: the Role of Trust

by

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Abstract:
The rapidly aging population presents challenging healthcare service problems, including healthcare spending growth, limited medical resources, and declining medical treatment outcomes. Although mobile health (mHealth) services are widely viewed as a viable means to relieve the strain of an aging population, adoption and usage rates of mHealth services remain low among the elderly. Extant literature seldom explores the adoption and usage of mHealth services by the older population. To advance knowledge in this unexplored research area, this thesis aims to investigate the antecedents influencing elderly users' adoption and usage of mHealth services from the perspective of trust. Three interrelated empirical studies were conducted, as follows:

Study 1 aimed to explore elderly users' intentions to use mHealth services in the pre-adoption stage. Drawing upon the trust transfer theory, this study investigated declining physiological conditions and support from hospitals in an integrated framework to explain elderly users' intentions to use mHealth services and empirically examine the trust transfer mechanism.

Study 2 aimed to investigate elderly users' intentions to continue using mHealth services in the post-adoption stage. Based on trust theory, this study examined how elderly users' age-specific characteristics (e.g., technology anxiety and health anxiety) and two trust dimensions (e.g., cognitive and affective trust) affected their intentions to continue using mHealth services.

Study 3 aimed to underline the antecedents of elderly users' intentions to routinely use mHealth services in the post-adoption stage. This study investigated the interaction effects of trust, personal innovativeness in information technology (PIIT), and perceived health severity on elderly users' intentions to routinely use mHealth services.

Three questionnaire-based surveys were conducted among a sample of elderly users in China. The data analysis showed the following: (1) trust factors can directly influence elderly users' intentions to use, intentions to continue using, and intentions to routinely use mHealth services; (2) trust in offline health services can indirectly influence intentions to use via trust in mHealth services; (3) health anxiety strengthens the positive effect of cognitive trust but weakens the positive effect of affective trust on the intention to continue using; (4) technology anxiety strengthens the positive effect of affective trust but not that of cognitive trust on the intention to continue using; (5) in situations of high perceived health severity, trust related less positively to the intention to routinely use than PIIT, however, in situations of low perceived health severity, trust related more positively to the intention to routinely use than PIIT.

This thesis contributes to the existing literature in several ways and provides a foundation for future research. First, this thesis bridges a gap in trust research by examining the effects of inter-channel trust transfer on building initial trust in mHealth services. Second, this thesis bridges another gap in trust research by investigating the effect of personality traits (e.g., age-specific characteristics) on trust in mHealth services. Third, this thesis provides new insights into other contexts of adoption and usage of health information technology by investigating the combined effect of variables from the IS, health informatics, and gerontology literature on elderly users' behavior toward mHealth services. Practically, mHealth service providers can better develop and adapt their marketing strategies to increase elderly users' adoption and usage of mHealth services and customize services catering to elderly users' age-specific characteristics.

Bio:
Meng Fanbo is a PhD candidate at the Department of Logistics and Maritime Studies, The Hong Kong Polytechnic University under the supervision of Prof. Kee-hung Lai, and a PhD candidate in School of Management, Harbin Institute of Technology under the supervision of Prof. Xitong Guo. His research interests include healthcare information technology, mobile health, and online community. He received his master degree in Marketing and Management and bachelor degree in International Business and Management from University of Bradford, UK.

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All are welcome!