ABSTRACT

Maternal health services provide a considerable problem in rural Indonesia, where deficiencies in infrastructure, digital accessibility, and healthcare quality impede the extensive implementation of mHealth solutions. This study seeks to examine the determinants affecting the adoption of maternal health applications using the Information System Success Model (ISSM) established by DeLone and McLean. The approach encompasses three fundamental dimensions—System Quality, Information Quality, and Service Quality—assessed concerning Intention to Use, User Satisfaction, and Net Benefits. A total of 175 pregnant women from diverse rural regions in Indonesia participated as respondents. Quantitative data analysis was performed using SmartPLS and RStudio with the plspm package, employing the PLS-SEM approach alongside bootstrapping and Multi-Group Analysis (MGA) to evaluate model validity, hypothesis significance, and age group moderation.

The hypothesis testing findings indicated that six out of the nine postulated associations were statistically significant, with t-values over the crucial threshold of 1.973. The correlations between Intention to Use and Net Benefits, and User Satisfaction and Net Benefits, were notably robust, suggesting that perceived results and user experience are critical determinants of successful adoption. Nonetheless, three pathways—specifically those related to System Quality and Information Quality—exhibited no substantial impact on Intention to Use or User Satisfaction. This indicates that the system's technological and informational characteristics, although significant, may not be the principal factors influencing user adoption behavior in rural settings. Moreover, the Multi-Group Analysis (MGA) findings indicated no significant disparities in adoption behavior among age groups ($p > 0.05$), implying that the model remains consistent irrespective of the respondent's age. The findings underscore the necessity for application development strategies that emphasize user satisfaction and perceived advantages, rather than age-specific features, in the creation of maternal health applications for rural Indonesian communities.

Keywords: Information System Success Model, Maternal Health, mHealth, Technology Adoption, Rural Healthcare Indonesia