

ABSTRACT

Maternal mortality remains a significant challenge in Indonesia, especially in rural areas with limited access to health services, infrastructures, various socioeconomic conditions, and geographical barriers. This study aims to identify the factors that influence the adoption of maternal health applications in rural Indonesia by using the Extended Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) by adding Technology Anxiety, Socioeconomics, and Geographical Location Variables. A total of 175 pregnant women from various rural communities became respondents in this study. Data analysis was conducted quantitatively using SmartPLS and RStudio with the *plspm* package to examine the relationship between variables and the significance of their influence through bootstrapping and Multi-Group Analysis (MGA) tests.

The findings of this study revealed six main variables that were significant, based on the *t*-value ($p < 0.001$). Namely, Performance Expectancy, Effort Expectancy, Geographical Location, Socioeconomic Status, Habit, and Behavioral Intention. Performance Expectancy and Effort Expectancy are found to have positive effects on the intention to use the application, each with a path coefficient of 0.300 (*t*-value 2.573) and 0.199 (*t*-value 2.475). At the same time, Geographical Location and Socioeconomic Status were also found to have positive effects with path coefficients of 0,118 (*t*-value 1,998) and 0,163 (*t*-value 2,318). Habit was also found to have a significant effect on application usage behavior, with a path coefficient of 0.231 (*t*-value 2.699), and Behavioral Intention is the most dominant factor in actual usage behavior, with a path coefficient of 0.255 (*t*-value 2.738).

Moreover, other variables, such as Social Influence Facilitating Conditions, Hedonic Motivation, Price Value, and Technology Anxiety, did not show any significant influence on the adoption. Furthermore, based on the Multi-Group Analysis (MGA), all test results show that there is no significant difference in the influence of adoption by age. This suggests that the effects of significant variables in the model are consistent across all age groups in rural areas. These findings emphasize the importance of application development strategies and maternal health policies that focus on increasing the perception of benefits, ease of use,

equal geographic and economic access, and education so that the adoption of maternal health applications in rural communities can be increased.

Keywords: mHealth, Maternal Health, UTAUT2, Technology Adoption, Rural Healthcare