

MISQ Archivist

ICT for Development in Rural India: A Longitudinal Study of Women's Health Outcomes

Viswanath Venkatesh, Tracy Ann Sykes, and Xiaojun Zhang

Abstract

With a view toward improving the success of information and communication technology (ICT) initiatives in less developed countries in general and India in particular, this work seeks to uncover reasons for success and failure of ICT for development (ICT4D) initiatives. We drew on social networks theory in general and social contagion theory in particular, and examined the impact of advice network constructs on ICT kiosk use and the impact of ICT kiosk use on women's health outcomes (i.e., seeking modern medical care and maternal mortality). A two-level model (i.e., village and individual) was developed to understand how women in rural India were influenced by other women in their advice networks to use ICT kiosks, and the effects of ICT kiosk use on seeking modern medical care and maternal mortality. At the village level, we proposed lead user network effects. At the individual level, we proposed structural network effects of other women in a focal woman's network on individual outcomes of ICT kiosk use, seeking modern medical care, and maternal mortality. We focused on network position (i.e., centrality) and network tie strength (i.e., strong ties and weak ties) as explanatory variables. Specifically, we argued that strong tie centrality will have an adverse effect on ICT kiosk use, whereas weak tie centrality will have a favorable effect. We also argued ICT kiosk use will have a positive effect on seeking modern medical care and a negative effect on maternal mortality. Finally, we argued that seeking modern medical care will have a negative effect on maternal mortality. Our model was mostly supported in data collected about 6,710 women in 10 intervention group villages in rural India and 8,344 women in the control group villages over a period of approximately 7 years.

Keywords: Information and communication technology, ICT for development, women's health outcomes