

Submitted to: Unpacking the Scientific Knowledge Networks for Sustainability Transformation in Agri-Food Systems

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Title: Do online communities of practice complement or substitute conventional agricultural extension services? Evidence from Indonesian shrimp farmers' participation in a Facebook group

Keywords: Online communities of practice; agricultural extension service; farmer-to-farmer extension; shrimp farming

One liner: A study exploring the potential of online communities of practice for smallholder farmers in developing countries

Abstract: This study explores the potential of online communities of practice as an alternative to traditional agricultural extension services for smallholder farmers in developing countries. Information asymmetry resulting from the lack of access to climate, technical, and market information hinders informed decision-making related to farm management. However, the widespread use of information and communication technologies (ICT) can reduce costs and improve access to vital information for farmers. Despite the promising benefits of ICT, research on ICT and knowledge exchange among smallholders in developing countries remains limited. The study investigates the impact of a Facebook group on knowledge and information exchange among 1,574 shrimp farmers in Indonesia. The findings reveal that while the correlation between the use of online community and conventional extension services is not significant in the full sample, those who obtain information from neighbors or extension workers are more likely to use the online community. However, the reliability of the online community as trustworthy source of information is still questionable, as those who obtain information from neighboring farmers or family members are less likely to rely on the information from the communities. Moreover, we found no association between the increased time spent at home due to the COVID-19 pandemic and the increased use of the online community. The results suggest that online communities of practice may act as a complement to, rather than a substitute for, conventional extension services, indicating the need for further research to determine the potential of ICT in improving information access and exchange for smallholder farmers.

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