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## INTRODUCTION

This study examines how communication technologies support the dissemination of One Health information in rural Thailand. One Health links human, animal, and environmental health, and effective communication is central to community engagement during disease outbreaks. According to the **Task–Technology Fit (TTF) framework**, technologies are effective when their characteristics align with the requirements of a specific task. In this work, we apply TTF to assess how smartphones, television/radio, and community loudspeakers facilitate access to and exchange of health information in Chanthaburi province.

## OBJECTIVE

Identify which technologies most effectively promote One Health awareness in Thai rural communities.

## METHODOLOGY

- Survey in 10 villages in Soi Dao and Pong Nam Ron districts, Chanthaburi province, eastern Thailand, October 2025.
- Questionnaire based on established Task–Technology Fit constructs.
- Data from 321 smartphone users on their communication technology use.
- Data analysis with Partial Least Squares Structural Equation Modelling using SmartPLS 4 software.



## RESULTS

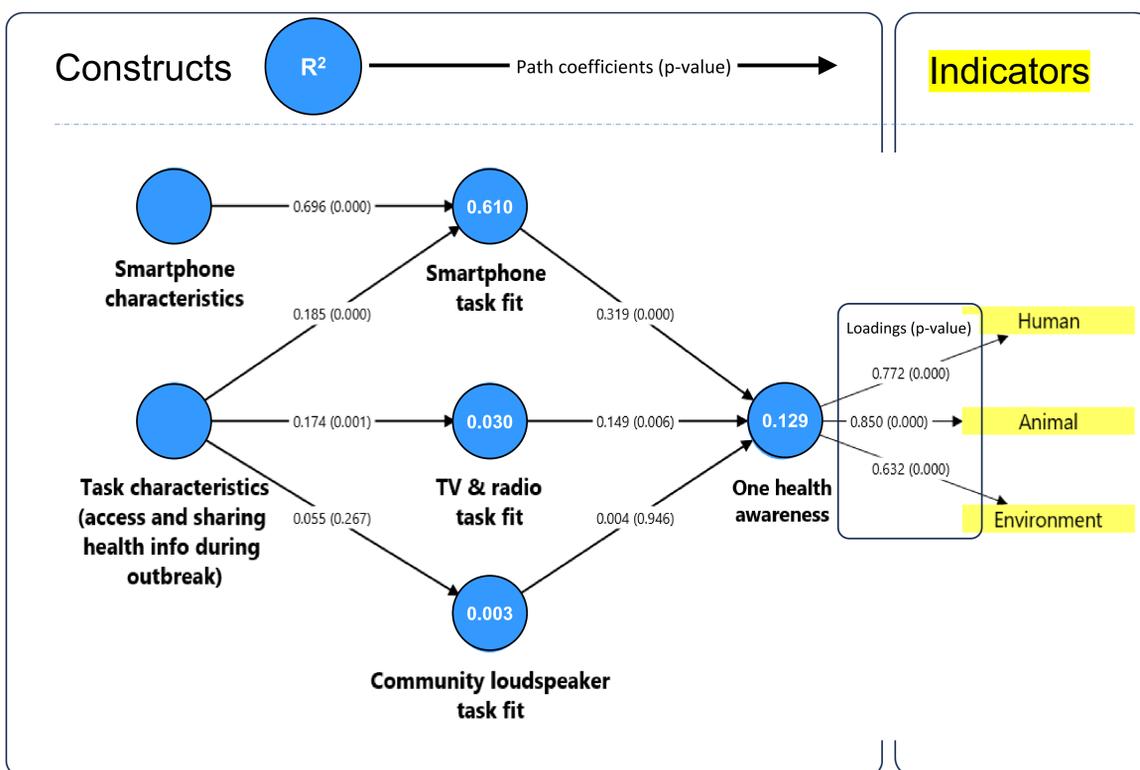


Figure 1. Structural model of task–technology fit and its relationship to One Health awareness.

Table 2. Assessment of the measurement model

	Cronbach's alpha	Composite reliability	Average variance extracted
One Health awareness	0.623	0.799	0.573
Smartphone task fit	0.920	0.962	0.926
Smartphone characteristics	0.904	0.940	0.839
TV & radio_task fit	0.947	0.966	0.904
Task characteristics: Access & sharing health info during outbreak	0.748	0.855	0.663

Table 1. Constructs and its definitions

Construct	Evaluated as...
Task characteristics	Access and sharing of health-related information.
Smartphone characteristics	Specific characteristics of smartphone, e.g. internet access, social media, online news, that facilitates the intended task.
Smartphone task fit	Effectiveness of smartphone in facilitating the task.
TV & radio task fit	Effectiveness of TV and radio in facilitating the task.
Community loudspeaker task fit	Effectiveness of the village loudspeaker system to facilitate the task.
One health awareness	Questions related to human, animal, and environmental health.

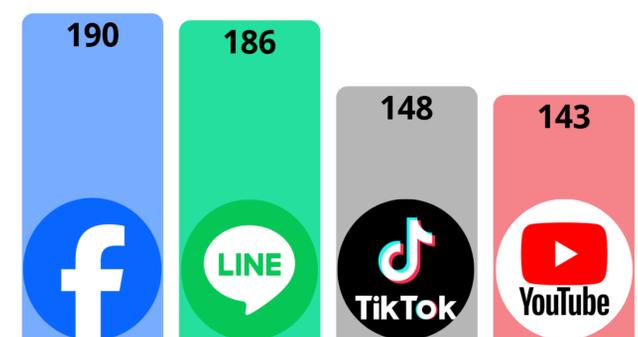


Figure 2. Most frequently used smartphone applications for accessing health information among respondents (n=321). Respondents can use more than one app

## CONCLUSION

Smartphones provided the highest task–technology fit for accessing and sharing health information during outbreaks, resulting in the greatest increase in One Health awareness. Television and radio also contributed, although their effects were smaller. Community loudspeakers did not support the task and showed no measurable impact on awareness. The widespread use of social media and messaging applications further highlights the central role of mobile platforms in rural communication.

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