'App'reciating User Needs Early in Digital Health Innovation

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¹ PROBLEM 4 in 5 Health Apps are unreliable¹. **Key reason:**

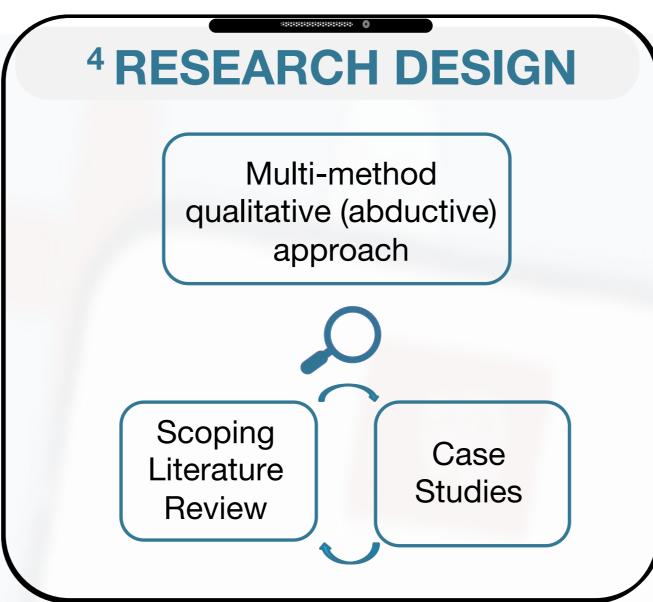
Failure to identify users' unmet **needs** in the "fuzzy" front-end of innovation.

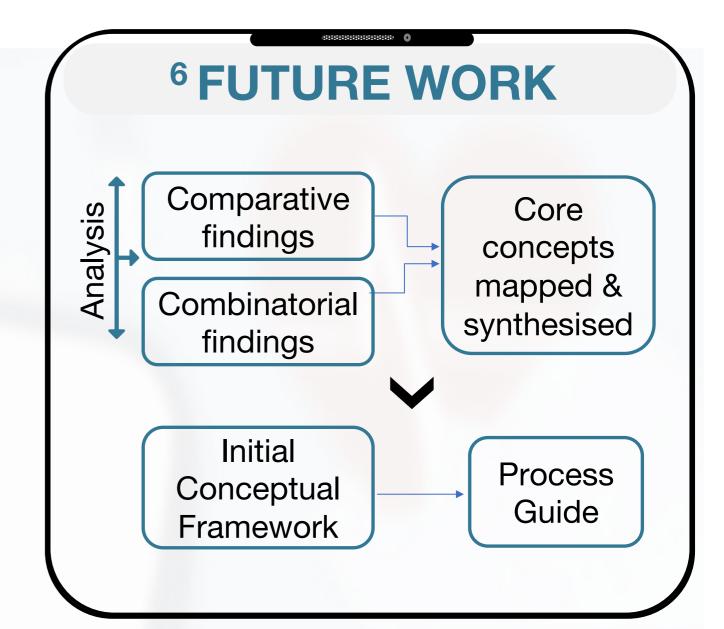
Research on early-stage user involvement (EUI) in health apps is sparse, highly fragmented, and unspecific, regarding:

- Methods that can help improve need identification.
- Factors that facilitate and inhibit user involvement in innovation.

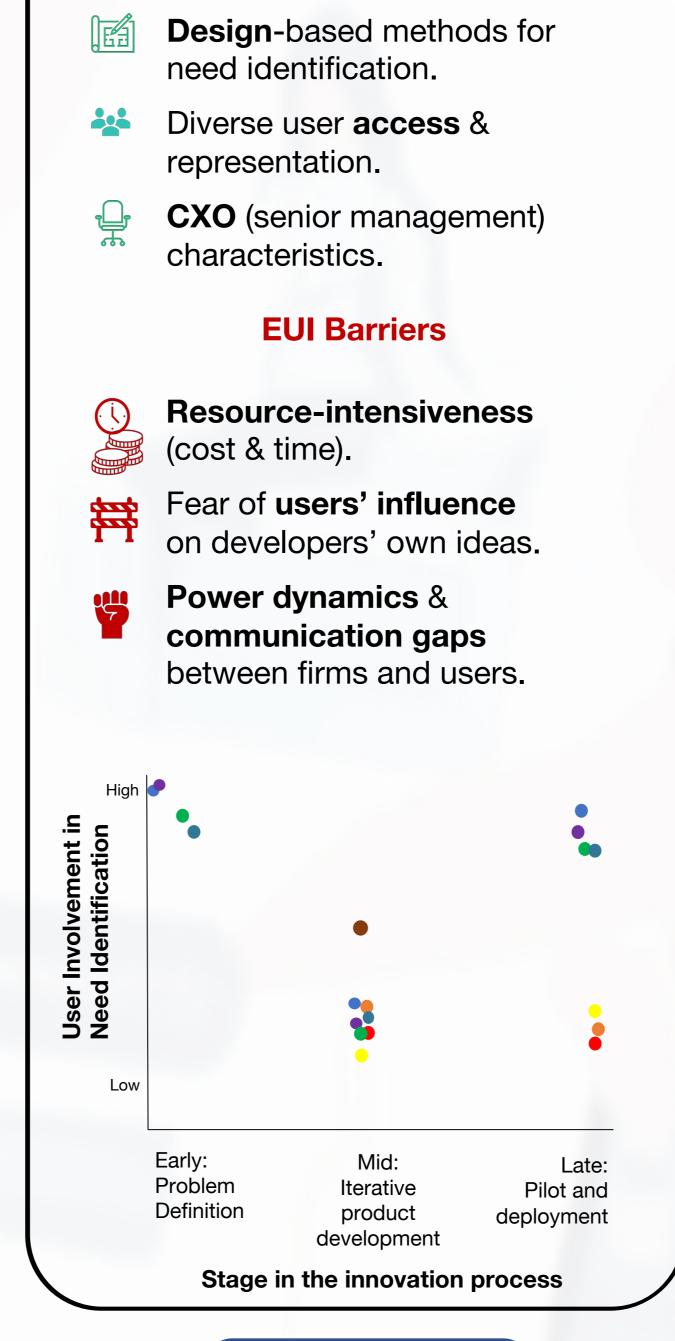


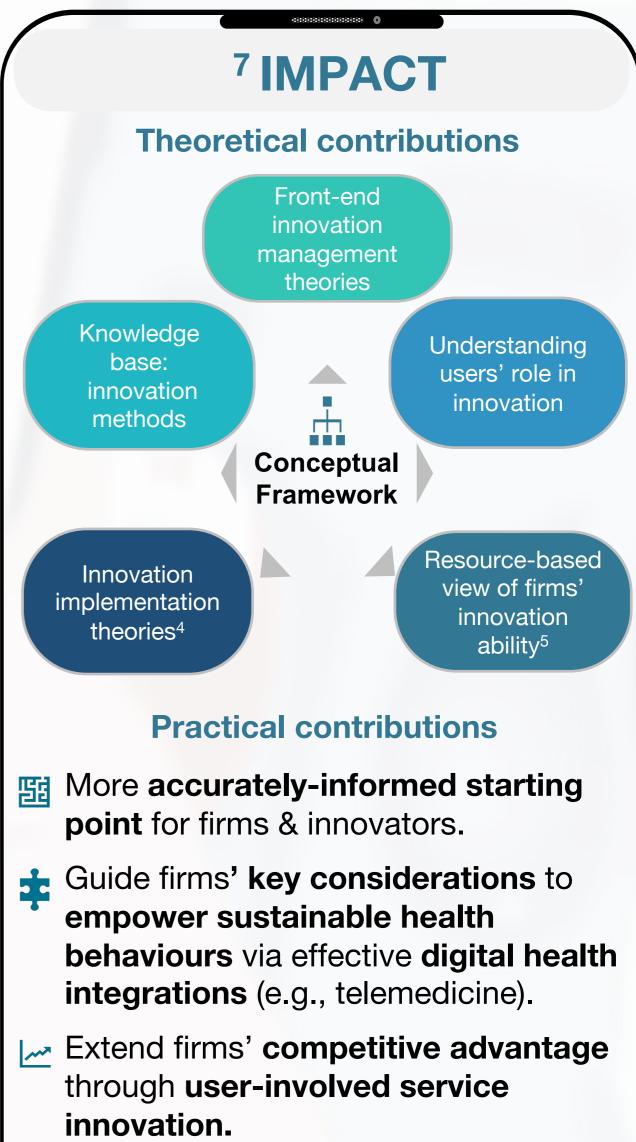
2. What major enablers and barriers impact EUI in health app





⁵ PRELIMINARY FINDINGS **EUI Enablers Design**-based methods for need identification. Diverse user access & representation. **CXO** (senior management) characteristics. **EUI Barriers Resource-intensiveness** (cost & time). Fear of users' influence on developers' own ideas. **Power dynamics &** communication gaps between firms and users. User Involvement in Need Identification





REFERENCES

- 1. Market Facts and Figures ORCHA (2021). Available at: https://orchahealth.com/market-facts-and-figures/ (Accessed: 16 January 2022).
- 2. Eyles, H. et al. (2016) 'Co-design of mHealth Delivered Interventions: A Systematic Review to Assess Key Methods and Processes', Current Nutrition Reports, 5(3), pp. 160–167. doi: 10.1007/s13668-016-0165-7.
- 3. Göttgens, I. and Oertelt-Prigione, S. (2021) 'The Application of Human-Centered Design Approaches in Health Research and Innovation: A Narrative Review of Current Practices', JMIR mHealth and uHealth, 9(12), pp. 5-14. doi: 10.2196/28102.
- 4. Mortara, L. and Minshall, T. (2014) 'Patterns of Implementation of OI in MNCs', in New Frontiers in Open Innovation, p. 2. doi: 10.1093/acprof.
- 5. Bogers, M., Afuah, A. and Bastian, B. (2010) 'Users as innovators: A review, critique, and future research directions', Journal of Management, p. 872. doi: 10.1177/0149206309353944.

³ RESEARCH QUESTIONS

- 1. What role does EUI play in firms' need identification approaches in health app development?
- development?













CONNECT

