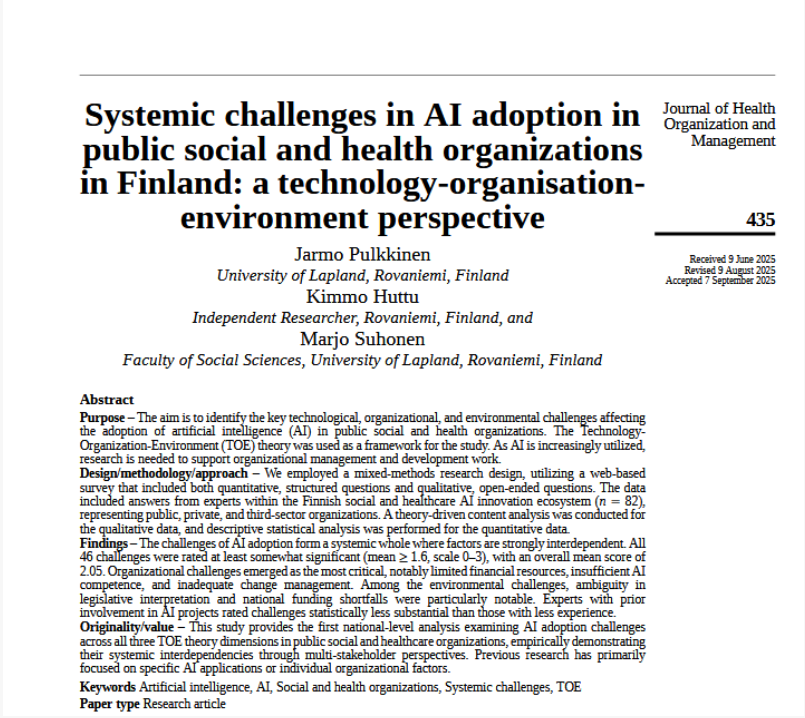
Study: AI adoption stalls due to financial resources and shortage of expertise in social and health care in Finland

A national study reveals nearly 50 systemic challenges that slow the adoption of artificial intelligence in Finland's public social and health care sector.



Systemic challenges in AI adoption in public social and health organizations in Finland: a technology-organisation-environment perspective

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Abstract

Purpose – The aim is to identify the key technological, organizational, and environmental challenges affecting the adoption of artificial intelligence (AI) in public social and health organizations. The Technology-Organization-Environment (TOE) theory was used as a framework for the study. As AI is increasingly utilized, research is needed to support organizational management and development work.

Design/methodology/approach – We employed a mixed-methods research design, utilizing a web-based survey that included both quantitative, structured questions and qualitative, open-ended questions. The data included answers from experts within the Finnish social and healthcare AI innovation ecosystem (n = 82), representing public, private, and third-sector organizations. A theory-driven content analysis was conducted for the qualitative data, and descriptive statistical analysis was performed for the quantitative data.

Findings – The challenges of AI adoption form a systemic whole where factors are strongly interdependent. All 46 challenges were rated at least somewhat significant (mean ≥ 1.6, scale 0–3), with an overall mean score of 2.05. Organizational challenges emerged as the most critical, notably limited financial resources, insufficient AI competence, and inadequate change management. Among the environmental challenges, ambiguity in legislative interpretation and national funding shortfalls were particularly notable. Experts with prior involvement in AI projects rated challenges statistically less substantial than those with less experience.

Originality/value – This study provides the first national-level analysis examining AI adoption challenges across all three TOE theory dimensions in public social and healthcare organizations, empirically demonstrating their systemic interdependencies through multi-stakeholder perspectives. Previous research has primarily focused on specific AI applications or individual organizational factors.

Keywords Artificial intelligence, AI, Social and health organizations, Systemic challenges, TOE
Paper type Research article

Article

HELSINKI, FINLAND, October 15, 2025 /EINPresswire.com/ -- A recent national study reveals nearly 50 systemic challenges that slow down the adoption of artificial intelligence in Finland's public social and health care sector. The biggest obstacles were financial resources and a lack of AI expertise.

The online survey, aimed at experts in the social and health care sector, received responses from 82 specialists across 17 public wellbeing services counties, the HUS Group, and the City of Helsinki. Responses were also obtained from companies, research institutions, associations, federations, and state agencies. The study was conducted by Web Fellows Oy, a company specializing in research for public administration.

The three most critical challenges for the proliferation of AI were:
1. Financial resources (average 2.58)
2. Lack of technical AI expertise in wellbeing services counties (2.45)
3. Availability of AI experts (2.40)

Surprisingly, the smallest challenges were identified as the availability of digital materials, the practical applicability of AI solutions, and awareness of AI solutions available on the market. All 46 identified challenges were rated as at least moderately significant. The overall average was 2.1 on a scale of 0–3.

“An interesting finding was also that respondents who had been involved in AI projects rated the challenges as statistically less significant than those without experience. This indicates that preconceptions might be greater obstacles than the actual challenges,” notes researcher Jarmo Pulkkinen.

The research results were published on October 15, 2025, in the esteemed Journal of Health Organization and Management. The research data was collected in November-December 2024. The scientific article was co-authored by researcher Jarmo Pulkkinen (Web Fellows Oy), independent researcher Kimmo Huttu, and Professor Marjo Suhonen (University of Lapland).

Read the article here: https://www.emerald.com/jhom/article-pdf/39/9/435/10354463/jhom-06-2025-0309en.pdf

The report, based on the results, summarises the key findings and presents concrete measures for different actors in the social and health care sector to accelerate the adoption of artificial intelligence.

Download the research report in PDF format: https://www.webfellows.fi/wp-content/uploads/2025/10/Sote-AI-Haasteet-Tutkimus-2025-EN.pdf

Further information:

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