

Artificial Intelligence in Ethiopian Universities: The Influence of Technological Readiness, Acceptance, Perceived Risk, and Trust on Implementation—An Integrative Research Approach

Authors : Merih Welay Welesilassie

Abstract : Understanding educators' readiness to incorporate AI tools into their teaching methods requires comprehensively examining the influencing factors. This understanding is crucial, given the potential of these technologies to personalise learning experiences, improve instructional effectiveness, and foster innovative pedagogical approaches. This study evaluated factors affecting teachers' adoption of AI tools in their English language instruction by extending the Technology Acceptance Model (TAM) to encompass digital readiness support, perceived risk, and trust. A cross-sectional quantitative survey was conducted with 128 English language teachers, supplemented by qualitative data collection from 15 English teachers. The structural mode analysis indicated that implementing AI tools in Ethiopian higher education was notably influenced by digital readiness support, perceived ease of use, perceived usefulness, perceived risk, and trust. Digital readiness support positively impacted perceived ease of use, usefulness, and trust while reducing safety and privacy risks. Perceived ease of use positively correlated with perceived usefulness but negatively influenced trust. Furthermore, perceived usefulness strengthened trust in AI tools, while perceived safety and privacy risks significantly undermined trust. Trust was crucial in increasing educators' willingness to adopt AI technologies. The qualitative analysis revealed that the teachers exhibited strong content and pedagogical knowledge but needed more technology-related knowledge. Moreover, It was found that the teachers did not utilise digital tools to teach English. The study identified several obstacles to incorporating digital tools into English lessons, such as insufficient digital infrastructure, a shortage of educational resources, inadequate professional development opportunities, and challenging policies and governance. The findings provide valuable guidance for educators, inform policymakers about creating supportive digital environments, and offer a foundation for further investigation into technology adoption in educational settings in Ethiopia and similar contexts.

Keywords : digital readiness support, AI acceptance, risk, trust

Conference Title : ICEHE 2025 : International Conference on Education and Higher Education

Conference Location : Sydney, Australia

Conference Dates : May 17-18, 2025