

Title: Open Innovation in the Financial Sector: A Mixed-Methods Approach to Assess Bankers' Willingness to Embrace Open-AI ChatGPT

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Abstract: As open innovation and Artificial Intelligence (AI) become more prevalent in financial institutions, early adoption of Chatbots will have a competitive advantage. However, ChatGPT is still less common in the financial sector than in other industries. This study attempts to understand bankers' perceptions towards using ChatGPT. Towards this, the study employed an exploratory sequential mixed-methods approach. Eventually, 10 bank professionals participated in the preliminary semi-structured interviews to gain insight into their perceptions. Sequentially, the study cross-sectionally examined the identified factors among 368 bankers to triangulate the framework with empirical evidence. The Thematic Content Analysis (TCA) analysis identified seven new factors related to bankers' use of ChatGPT, which were primarily validated in PLS-SEM assessments. The results showed the positive effect of performance expectancy, social influence, facilitating conditions, awareness, innovativeness, and system quality on ChatGPT usage and the negative effect of technology self-efficacy and IT features. Intriguingly, the moderating effects of central bank support were positively confirmed for innovativeness and social influence, but negative for the relationship between technology self-efficacy, awareness, and bankers' intention. This study offers a highly predictive model contemplating the applicability of an extended UTAUT model to explain the use of ChatGPT in the banking sector. Accordingly, we suggest that decision-makers should emphasize improving the individual attributes of their human capital towards technology and improving AI system quality, as well as working closely with government-powered authorities that would facilitate the diffusion process of AI Chatbots in the banking sector.

Keywords: Chatbots, Artificial Intelligence, ChatGPT, Open Innovation, UTAUT, Mixed methods

DOI: <https://doi.org/10.1016/j.joitmc.2024.100216>

<https://www.sciencedirect.com/science/article/pii/S2199853124000106>