Abstract

This study explores employee perceptions and adoption of RippleNet, a blockchain-enabled cross-border payment system, within QNB. Guided by the Technology Acceptance Model (TAM), the research examines how constructs such as Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Attitude Toward Use (ATU), Behavioural Intention (BI), Actual System Use (ASU), and Technological Advancement (TA) influence adoption. A mixed-methods approach combined thematic analysis of interview data with Structural Equation Modeling (SEM) based on survey responses from 51 QNB employees. Qualitative findings highlighted themes such as system efficiency, learning support, regulatory resistance, and peer-driven advocacy, which informed the observed variables used in the CFA. SEM results showed that several TAM relationships were weaker than expected. For example, PU had minimal impact on ATU (-0.047), and TA only slightly influenced PEOU and PU, while reluctant compliance strongly affected BI (0.87), underscoring the role of institutional enforcement. By contextualising TAM in a regulated banking environment, this study emphasises that employee perceptions are central to successful technology adoption, which in turn enhances operational efficiency, service quality, and ultimately customer satisfaction in cross-border banking transactions.