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A PLS-SEM Analysis of Cybersecurity Risk Awareness in Mobile Banking: Key Factors and Challenges in Sabah, Malaysia

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ABSTRACT

This study examines the relationship between cybersecurity risks awareness in mobile banking in Sabah, Malaysia, using Partial Least Squares Structural Equation Modeling (PLS-SEM). Focusing on the impact of user awareness and behavior (UAB), mobile device security (MDS), banking app security features (BASP), and perceived cybersecurity threats (CT) on cybersecurity risk awareness (CRA), the research surveyed 350 mobile banking users, with 286 valid responses. The findings show that UAB, MDS, and BASP significantly influence CRA, while the direct impact of CT on CRA was found to be negligible. This study highlights the importance of user education and the implementation of robust security measures to mitigate cybersecurity risks in mobile banking. It recommends comprehensive education programs to improve cybersecurity literacy, particularly for users with lower digital skills, and emphasizes the need for user-friendly banking app security features. Additionally, strengthening mobile device security and enforcing stringent security standards can further enhance the overall security of mobile banking services.

Keywords: Cybersecurity Risk Awareness, Mobile Banking Security and PLS-SEM Analysis