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Bring Your Own Device Security Model in a Financial Institution of South Africa

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Abstract : This paper examines the utilization of personal electronic devices like laptops, tablets, and smartphones for professional duties within a financial organization. This phenomenon is known as bring your own device (BYOD). BYOD accords employees the freedom to use their personal devices to access corporate resources from anywhere in the world with Internet access. BYOD arrangements introduce significant security risks for both organizations and users. These setups change the threat landscape for enterprises and demand unique security strategies, as conventional tools tailored for safeguarding managed devices fall short in adequately protecting enterprise assets without active user cooperation. This paper applies protection motivation theory (PMT) to highlight behavioral risks from BYOD users that may impact the security of financial institutions. Thematic analysis was applied to gain a comprehensive understanding of how users perceive this phenomenon. These findings demonstrates that the existence of a security policy does not ensure that all employees will take measures to protect their personal devices. Active promotion of BYOD security policies is crucial for financial institution employees and management. This paper developed a BYOD security model which is useful for understanding compliant behaviors. Given that BYOD security is becoming a major concern across financial sector, it is important. The paper recommends that future research could expand the number of universities from which data is collected.

Keywords: BYOD, information security, protection motivation theory, security risks, thematic analysis **Conference Title:** ICICS 2025: International Conference on Information and Computer Sciences

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