



# Cybersecurity Protocols for Financial Systems in East Africa: An Analysis

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### Abstract

Cybersecurity threats to financial systems are increasing globally, including in East Africa where cyber-attacks on banking and other financial institutions have grown significantly. The research employs a systematic review of existing cybersecurity policies, industry reports, and academic studies from the last five years, focusing on South African financial institutions to identify common threats and propose tailored mitigation measures. A thematic analysis revealed that malware attacks are the most prevalent threat in financial systems across East Africa, with an estimated

50 million annual loss attributed to such incidents. The findings suggest a significant gap between current cybersecurity

$\hat{\theta} = \operatorname{argmin}_{\theta} \sum_i \ell(y_i, f_{\theta}(x_i)) + \lambda \|\theta\|_2^2$ , with performance evaluated using out-of-sample error.

**Keywords:** Sub-Saharan, Africa, South\_Sudan, Cybercrime, Digital\_Trust, Malware\_Analysis, Blockchain\_Security, Identity\_Management

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