



# Cybersecurity in East African Financial Systems: Threats and Mitigation Strategies

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### Abstract

Cybersecurity threats in East African financial systems have become increasingly prominent due to the rapid digitization of banking and financial services. A mixed-method approach was employed, including a literature review and semi-structured interviews with cybersecurity experts from the region. Analysis revealed that phishing attacks account for approximately 30% of all reported cyber incidents in Ugandan financial institutions. The study concludes that while current security measures are effective against most threats, there is a need to enhance training programmes and implement more advanced intrusion detection systems. Financial regulators should mandate regular cybersecurity audits and encourage the adoption of multi-factor authentication for all online transactions. East Africa, Cybersecurity, Financial Institutions, Uganda, Mitigation Strategies Model estimation used  $\hat{\theta} = \operatorname{argmin}\{\theta\} \operatorname{sumiell}(y_i, f\theta(\xi)) + \lambda \sqrt{\theta} \sqrt{\theta}^2$ , with performance evaluated using out-of-sample error.

**Keywords:** East Africa, Cybercrime, Blockchain, Encryption, Risk Management, Information Security, Fraud Detection

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