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Enhancing the Security Features of Automated Teller Machines (ATMs): A Ghanaian Perspective

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Abstract: *The growth in electronic transactions has resulted in a greater demand for fast and accurate user identification and authentication. PINs are commonly used for access codes to buildings, banks, and computer systems. Conventional methods of identification, such as possession of an ID card or exclusive knowledge, such as a Social Security number, or a password, are not always reliable.*
In this article, we propose a biometric embedded fingerprint biometrics authentication scheme for ATM banking systems. For over 30 years, consumers have relied on and trusted the ATM to meet their banking requirements. However, ATM fraud is on the rise. In this article, we explain the potentially fraudulent activities that can be perpetrated against an ATM and provide recommendations on how to prevent them. In particular, we create a prototype model of the biometric equipped ATM that provides security solutions for most of the known breaches, from Ghana's perspective. To make sure that most users will accept this security approach, we tested the model and received opinions from users.

Keywords: Automated Teller Machines (ATMs), Biometric Technology, Bank Customers, Electronic, Security

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