

# **MULTI-FACTOR AUTHENTICATION IN RELATION TO SECURED PAYMENT SYSTEMS IN ATM'S**

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## **ABSTRACT**

A vision of the future where no one needs pockets to holding cards and tension in the mind for loosing the cards or theft is the main objective for writing this paper. There are already stores in Germany, the UK, and the U.S. that have implemented fingerprint technology for biometric payment [1]. The aim is to extend the client base to those customers who have no valid passport, drivers' license or even do not know their date of birth. Biometric authentication has become more and more popular in the banking and finance sector. The use of biometric technologies at ATMs POS terminals and online-banking is currently only used in very small projects with few users. The optimal application of biometric authentication in the financial industry still requires at least one more authentication method that e.g. combines with knowledge and/or possession features or that demands two biometric features. Thus creating a central database with biometric data would be quite critical under privacy laws in relation to payment systems and ATMs. Therefore, biometric authentication should be combined with password security systems in order to fulfill the high expectations in biometric technologies in banking sector for security in payment system at ATM'S.

**KEYWORDS:** ATM, POS, PIN, RFID, OTP, TAN, PKI, EMV.