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A Review of Blockchain Technology for E-Governance: Applications and Challenges

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Abstract

Information Communication Technologies are seen as a pivotal factor in improving service delivery in the realm of e-governance. Nonetheless, issues such as data privacy, confidentiality, dependability, coordination, and interoperability impede its complete potential. This study will examine the impact of blockchain in resolving these issues while lending transparency and protection to e-governance at the same time. The central inquiry of the research highlights how blockchain can aid in fortifying e-governance by upping transparency and security. Fields such as identity management, voting system safety, clear supply retailers, and electronic documents notary services are investigated as part of the research. Despite previous research recognizing its prospects, there is still a need to review its literature and empirical evidence. Fueled by an eagerness to handle the vital challenges of e-governance, this research aims to provide useful insights, research gaps, and a guide to utilizing blockchain to enhance e-governance. The systematic review approach encompasses essential elements of the blockchain to properly assess its capacity to back up e-governance. Case studies from varying backgrounds underscore the capability of blockchain in dealing with the troubles. This research greatly and practically provides possible solutions and calls for further examinations for an accountable adaptation of blockchain in e-governance. It also brings to light modern prospects of more effective and secure governance.

Keywords: *Blockchain, E-Governance, Transparency, Security, Service delivery*