


## Chapter 2

# Blockchain Technology Adoption Against Corruption in Emerging Economies

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### **ABSTRACT**

*Corruption overwhelms the functionality of all countries, with the developing countries lacking the resources to combat it effectively, leaving society in serious jeopardy. This chapter analyzes the potential of the adoption of blockchain technology to curb corruption in developing countries. The method adopted for the study is conceptual analyzes. Specifically, the blockchain technology framework for government procurement processes and monitoring of government contract execution in developing country was developed. It showed that the immutable nature of blocks in the chain and the consensus protocol of the nodes make the technology adoption a good fit for curbing corruption, make project execution timely, and make the government procurement process transparent. The conclusion of the chapter is that governments of the developing countries should take bold steps to lay out the framework for the adoption of blockchain technology as a panacea against endemic corruption in procurement.*

### **1. INTRODUCTION**

Corruption is a huge problem in emerging countries. Even though corruption pervades all facets of human endeavors, and constitutes a drain on every society in  
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the world, the effect on the developing economies is sharp, compared to developed countries. The developed economies of the world have established systems and institutions to combat corruptions in the polity, which are absent in most developing countries. According to the Transparency International (TI, 2022), corruption can be pervasive in commerce, public sector - especially in the executive, judiciary and legislature - as well as in the media and non-governmental organizations. Broadly, the concept of corruption encompasses misappropriation, theft, kickbacks, stealing, bribes, unlawful present, undue favors, nepotism and several other acts seen as abuse of office (OECD, 2003, cited in Davis et al., 2022)

The cost of corruption in the society is reflected in the destruction of the society itself. It has been the bane of the modern society and has been identified as responsible for widespread poverty, inequality and poor economic development (United Nations Office on Drugs and Crime, 2004). The proceeds of corruption have also been identified as responsible for financing of violent crimes and terrorism. The contextual dynamics and the effect of the environment, defined by various factors; such as beliefs, societal ethos, familial and ethnic affiliations; on the perception of corruption in a society was emphasized by Sudibyo and Jianfu (2015). Accordingly, in many societies, these ingredients are responsible for building public attitude on what constitute bad morals, corrupt practices and acceptable thresholds for law enforcements. Yet, corruption's pervasive consequences do not have boundary limitations. The devastating impact of corruption on the society reverberates at the global scale and goes beyond individual society's definitions, tolerance and legitimization.

Fragile democracies are facing instability and are at the risk of collapse as a result of the proceeds of corruption being deployed to compromise elections and to sponsor social crisis that bring governments down. It is estimated that the monetary cost of corruption to the world is about \$2.6 trillion (about 5 percent of the world's Gross Domestic Product, GDP), with about half (\$1.26 trillion) in the developing countries (World Economic Forum [WEF], 2019, 2021). According to McKinsey (2015), emerging economies constitute 84 percent of the population of the world in 2014, while the aggregate contributions to the world GDP is about 50 percent.

For a number of years, governments of developing countries have tried some measures to combat the problem of corruption by digitizing their operations with assistance from multinational institutions such as the World Bank and International Monetary Fund (IMF). These institutions have provided policy support and finance for institutional reforms (Khan, 2006). The various policy supports that have been employed by the World Bank include introduction of new technologies discern, tackle and forestall incidence of corruption, including public sector digitization and encouragement of deployment of latest technologies, such as Blockchain and AI (World Bank, 2020; 2023).

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