


# Chapter 8


## Cryptocurrencies and Decentralized Finance (DeFi): Transforming the Future of Financial Systems

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### ABSTRACT

*The study's objective is to look into the pipeline of cryptocurrencies and Decentralised finance (DeFi) as potential new economic actors ready to institute radical changes in the established ways of finance. The DeFi innovations explore key drivers, opportunities, and risks they may introduce for the stakeholder ecosystem of the financial arena at larger. Using a qualitative research methodology, the study conducts a systematic literature review along with the case analysis of leading DeFi protocols and also cryptocurrency platforms. The findings of the study stated that DeFi uses blockchain technology to provide public, permissionless and interoperable financial services such as lending, trading and asset management. This study provides*

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*a source of information for regulators, global investors, financial institutions, and developers of decentralized technology.*

## **INTRODUCTION**

The global financial world has experienced a tremendous change over the years subjected to the exponential change in the digital technology and an increased need of more inclusive, efficient and transparent financial system (Tetiana, Volodymyr, Dluhopolskyi, Vasyl, & Tetiana, 2022). Among the most disruptive trends are cryptocurrencies and decentralized finance (DeFi) – two systems linked to each other: they both exist to deter from the traditional financial systems and offer a decentralized approach as an alternative. Originated at first as an alternative to fiat money and traditional bank systems, cryptos and the DeFi platforms have transformed into intricate systems that provide a diverse assortment of financial services including lending, trading, insurance, asset management, funds remittance et cetera, without requiring centralized intermediaries. These innovations use the blockchain technology to create peer-to-peer transactions, self-executing smart contracts, programmable money, which shows what many believe to be the next horizon of financial innovation (Piñeiro-Chousa, López-Cabarcos, Sevic, & González-López, 2022).

Cryptocurrencies, which saw the debut of Bitcoin in 2009, under the pseudonym Satoshi Nakamoto, were a response to the 2008 worldwide financial crisis. They sought to establish decentralized system which did not rely on centralized control, trust was kept not by institutions but through cryptographic protocols and distributed consensus. Over time, the more advanced blockchains like Ethereum have been developed to allow the development of decentralized applications (dApps), smart contracts, paving the way for a DeFi revolution (Nguyen & Nguyen, 2024). Unlike the traditional finance which depends on centralized institutions to offer and ensure the services, the DeFi protocols enable users to interface directly with each other in a permissionless and trustless context. For this reason, DeFi has garnered much momentum with TVL at DeFi protocols having accumulated to hundreds of billions of dollars at an all-time high in 2021.

An invasion of DeFi is in the potential for democratizing finance, breaking down access barriers to capital and tools managed by the gatekeepers of traditional finance. In places with scarce banking structure or individuals have been financially excluded, DeFi is a worthy alternative. In addition, programmability of DeFi permits developing new financial instruments and services that are more flexible in satisfying cliental demands. Some of them are automated market makers (AMMs), decentralized exchanges (DEXs), yield farming, and liquidity mining – innovations that reinvent the ways through which value is created, exchanged, and distributed.

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