


Chapter 7

Cryptocurrencies and Decentralized Finance (DeFi): Revolutionizing the Global Financial Landscape

R Velmurugan

 <https://orcid.org/0000-0002-7925-9757>

Karpagam Academy of Higher Education, Coimbatore, India

J Sudarvel

 <https://orcid.org/0000-0001-6656-1992>

Karpagam Academy of Higher Education, Coimbatore, India

Ravi Thirumalaisamy

 <https://orcid.org/0000-0002-5954-5940>

Modern College of Business and Science, Oman

ABSTRACT

Cryptocurrencies and DeFi (decentralized finance) have made decentralization possible in the international finance ecosystem, assisted by the blockchain technology. With this, we can do it with secure, transparent transactions without intermediaries, something which gives the user financial autonomism. On decentralized platforms, smart contracts for DeFi users provide access to lending, borrowing, liquidity services, and other exchanges. The revolution is lead by Bitcoin and Ethereum, especially in coming to countries where banks don't exist or are very hard to find, with lower fee, more accessibility. With the market volatility and the security concerns, such as vulnerabilities in the smart contracts, strong risk management and strong

DOI: 10.4018/979-8-3373-1727-4.ch007

security is necessary. The biggest problems that DeFi platforms need to overcome are regulated by Uniswap, Aave, and Compound. But DeFi's growth will come with sincere collaboration between developers, regulators, and those financial institutions that traditionally form a couple of the major aspect players.

INTRODUCTION

The process of the global financial ecosystem. The traditional way of financial systems has been recognized to be controlled by the centralized institutions, which have been the go between to the external users and the wider financial system. Banks, insurance companies, investment and other such institutions have historically played a role of bringing together people, transactions and assets, securing them, giving loans and generally regulating the economic flow of the money. Nevertheless, the constantly growing decentralized financial technology is tackling this conventional model with the ability to establish direct, peer-to-peer financial transactions. Through this transformation, the intermediaries' role is diminished and people have the power to act on finances without them, resulting in an open and inclusive financial ecosystem.

Blockchain technology is the motor of this transformation, that which underpins those cryptocurrencies like Bitcoin as well as Ethereum. Blockchain technology means the possibility of creating transparent, secure and decentralized system that will allow users to trade directly between each other and not through centralized intermediaries. Blockchain technology is used by a class of cryptocurrencies, known as cryptocurrencies, the most famous of which being Bitcoin, the first, and most popular cryptocurrency, to make peer to peer transactions. As a public ledger, all the transactions are recorded using Bitcoin, which means there is transparency and security without a centralized dictation (entity). This is similar in principle to Ethereum, which was pitched by Vitalik Buterin in 2015 and is built upon the fundamental principles of Bitcoin, but it takes the form of more versatile blockchain that supports smart contracts, self executing contracts, where the terms of the agreement are already written in lines of code (Buterin, 2014).

These decentralized platforms are unattached from the regular financial institutions. An example here when the cryptocurrency is Bitcoin; that is even if you have a fiat currency, you are actually running away from the control of the government or the central bank and you find a decentralized form of cryptocurrency so that you can choose your desired place. In contrast to conventional banking systems, which depend on intermediaries to manipulate and validate transactions, cryptocurrencies are characterized to have immediate transactions among individuals and a blockchain serving as a public and immutable record to all transactions. That is even

18 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/cryptocurrencies-and-decentralized-finance-defi/385980

Related Content

Towards Eco-Friendly Responsibilities: Indonesia Field School Model Cross Review

Miftachul Huda, Islah Gusmianand Mufrad Teguh Mulyo (2021). *Journal of Comparative Asian Development* (pp. 1-12).

www.irma-international.org/article/towards-eco-friendly-responsibilities/286773

Improving Urban Planning Information, Transparency and Participation in Public Administrations

Beatriz Santos (2019). *Civic Engagement and Politics: Concepts, Methodologies, Tools, and Applications* (pp. 496-516).

www.irma-international.org/chapter/improving-urban-planning-information-transparency-and-participation-in-public-administrations/220224

Revolutionary Upheavals in Russia in the Early 20th Century

Bogdan Ershov (2020). *Political, Economic, and Social Factors Affecting the Development of Russian Statehood: Emerging Research and Opportunities* (pp. 61-76).

www.irma-international.org/chapter/revolutionary-upheavals-in-russia-in-the-early-20th-century/237394

Towards Eco-Friendly Responsibilities: Indonesia Field School Model Cross Review

Miftachul Huda, Islah Gusmianand Mufrad Teguh Mulyo (2021). *Journal of Comparative Asian Development* (pp. 1-12).

www.irma-international.org/article/towards-eco-friendly-responsibilities/286773

Media Portrayal of Climate Change and Renewal Energy in Nepal: Insights From a Qualitative Study

Sudeep Uprety, Arkom Palamanitand Kuaanan Techato (2025). *Journal of Comparative Asian Development* (pp. 1-14).

www.irma-international.org/article/media-portrayal-of-climate-change-and-renewal-energy-in-nepal/384320