

Chapter 5

Is Decentralized Control the Key for Digital Money?

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ABSTRACT

Traditional financial systems have limitations like centralized control, slow transactions, and lack of transparency. Emerging decentralized technologies offer an alternative model by giving users more direct control over their digital assets and identities. This chapter explores the potential of balancing centralized and decentralized elements in the evolution of digital currencies. It provides frameworks and real-world examples to examine how decentralized innovations can enhance speed, reduce costs, automate governance, and cut out intermediaries. The authors analyze the history of finance and argue that thoughtful integration of human oversight with decentralized automation can strengthen these systems. The goal is to inform policymakers, central bank experts, blockchain developers, and cryptography researchers on this key trend shaping the future of digital money.

INTRODUCTION

Conventional finance, referred to as central authority and brokers, has been the backbone of the global financial system for many years. It still has some limitations. Over the last decade, the emergence of decentralized systems such as cryptocurrency has sparked discussion about if decentralized management is the path to the expansion of digital finance. The purpose (Mihail & al., 2014) of this investigation is to educate state policymakers, financial institution professionals, blockchain programmers, and crypto scholars on the background and limitations of traditional banking, as well as the possible advantages of decentralization.

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HISTORY OF TRADITIONAL FINANCE

The traditional financial (Francesco., 2017) system has a long history that can be dated back to the days of ancient cultures. It has developed throughout the years from basic forms of commerce and exchange to a modern international monetary system. The centralized arrangement of control and the creation of official middlemen has been a defining aspect of conventional finance.

Printed cash was a popular kind of cash during the modern period. Central banks, institutions authorized by governments, were given the power to issue and regulate these currencies. This centralization of control was intended to maintain financial stability and foster economic growth. It provided the assurance that the money in circulation was genuine and had value.

For decades, centrally located organizations, notably monetary authorities and commercial lenders, have controlled global monetary systems. These organizations were crucial in the creation and regulation of currency. Traditional currencies, whether they were physical bills and coins, or digital representatives were tightly controlled by these intermediaries. Transactions within this financial system followed a complex path, involving multiple financial institutions.

Despite its resilience, the traditional financial system has faced growing scrutiny in recent years, particularly due to its susceptibility to economic crises and its exclusionary nature, which often marginalizes underprivileged populations. Moreover, the emergence of decentralized technologies, such as blockchain and cryptocurrencies, has challenged the hegemony of centralized financial institutions, offering alternative avenues for value exchange and wealth management. As these disruptive innovations continue to gain traction, the future of finance appears poised for a paradigm shift, with decentralization and democratization emerging as key themes in reshaping the global financial landscape. This system had several limitations:

Limitations of Traditional Finance

Lack of Control: Customers had minimal authority over their own finances and account information in the old monetary system. The generation and handling of financial assets has been dominated by centrally managed organizations such as monetary authorities and commercial lenders. This concentration of power made users vulnerable to the potential exploitation of their financial and personal information. Users had to entrust their data and assets to these centralized entities, relinquishing control in the process.

Inefficiency: Transactions within the centralized financial system (Cyn-Young., 2011) were frequently slow and costly. They often required the involvement of multiple intermediaries, such as banks and payment processors. These intermediaries introduced delays in the processing of transactions and incurred fees. Due to the participation of multiple financial organizations and change of currency processes, international transactions were particularly difficult and costly.

Lack of Transparency: The conventional banking system was transparent, causing it hard for consumers to monitor and completely understand their financial activities. The complex web of middlemen, private networks, and outdated technology worsened the lack of transparency. Users were often left in the dark about the status and details of their financial transactions.

Dependency on Third Parties: Users must depend on external financial organizations to store and move currency, acquire loans, and execute operations. Because of their reliance on middlemen, they experienced trust concerns and an absence of direct authority over their monetary matters. Users had no choice but to trust these institutions to handle their money and data responsibly.

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