


# Chapter 2

## Decoding Scholarly Trends in CBDC and Financial Development: An Intellectual Mapping Through Bibliometric Analysis

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### **ABSTRACT**

*Central Bank Digital Currencies (CBDCs) are on the rise as major financial innovations, making use of technologies such as Distributed Ledger Technology (DLT) to transform monetary systems. India, under the Reserve Bank of India (RBI), is working on a number of CBDC projects to evaluate their feasibility, although a conclusive position on their adoption remains to be formulated. In this chapter, an organized summary of current literature covering CBDCs and their capacity to advance economic development has been presented. To address the prominence of individual pieces of research tending to end up with fragmentary insights, a bibliometric analysis was designed to present innovative findings regarding undeveloped realms.*

DOI: 10.4018/979-8-3373-0315-4.ch002

## 1. INTRODUCTION

In 2025 the Decentralized Finance (DeFi) and Artificial Intelligence (AI) landscapes in 2025 are rapidly expanding with technology and increased institutional adoption. The global DeFi market is forecasted to grow from USD 32.36 billion in 2025 to USD 1,558.15 billion by 2034 with a compound annual growth rate (CAGR) of 53.80% (Precedence Research, 2024). North America alone accounted for over USD 7.78 billion DeFi market share in 2024, and illustrates that regions are beginning to establish digital finance ecosystems (Precedence Research, 2024). Similarly, generative AI is emerging as a unique aspect of the approximately USD 279.22 billion global AI market in 2024 that is expected to grow in 2025 to USD 390.90 billion with a project CAGR of 35.9% reaching in USD 1.81 trillion by 2030 (Grand View Research, 2024) and as sector, will grow in the US from USD 25.86 billion in 2024 to USD 803.90 billion in 2033 (GlobeNewswire, 2025). Additionally, Saudi Arabia is establishing advancements in AI via investments in capacity with AI infrastructure that can manage increase to 500 megawatts of the computing capacity, potentially realizing in the range of \$3–\$5 billion annually in chip sales (Investor’s Business Daily, 2025). There are compelling ways to operationalize DeFi digital currencies and virtual assets to undertake trade in new ways based on the expanding scope of AI applications. with the DeFi and AI forecasts demonstrating the rapid trends for DeFi and AI as integrators of hosting an increased selection of actors in socioeconomics is simultaneously but never as nuanced as what AI imagines socioeconomics inclusive of bias. Financial Technology (Fintech) brings transformative effects to financial products and services by employing technology as per the research of Arner et al. (2016). The financial industry went through a seismic change through Fintech which enabled consumers and businesses to have new ways of dealing with financial institutions. The payment system modernization efforts of central banks worldwide now focus on developing Central Bank Digital Currencies (CBDCs) as per Auer et al. (2020). Digital currency services can be seen as, and involve, technology-enabled platforms to facilitate the exchange of digital value (e.g., central bank digital currencies, cryptocurrencies, stablecoins, e-wallets). These CBDCs are not cryptocurrencies but are regulated and issued by central banks to develop secure, efficient, and inclusive financial systems (BIS, 2021). The Reserve Bank of India (RBI) has launched the pilots of the Digital Rupee to develop digital financial infrastructure (RBI, 2023). In parallel, a social media ecosystem like Twitter, Reddit, and YouTube are reshaping the public's perceptions, behaviors, and market sentiments towards digital currencies, while facilitating peer learning, jointly created and community-driven financial conversations, and spreading of live sentiment, sometimes associated with irrational imitation (or herding) and speculation (Zhang et al., 2020; Ante, 2021). In particular, social media in developing economies are

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