Chapter 4
Theories Supporting Central Bank Digital Currency Development and Its Usefulness

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ABSTRACT

This chapter presents some theories that support central bank digital currency development and its usefulness. The theories provide useful explanations for the development and use of central bank digital currency in the economy. Some theories show that information about central bank digital currency, as well as the perceived usefulness and ease of use of central bank digital currency, is crucial for its success. Other theories show that central bank digital currency can facilitate the flow of funds to economic agebts, and enhance the functioning of the economic system, thereby contributing to economic growth. These theories are useful to economists, policymakers and researchers who are interested in how central bank digital currency affects economic activities.

INTRODUCTION

Academic research into central bank digital currency (CBDC) is growing. But existing studies have not used theories to explain central bank digital currency development or its usefulness. Existing academic research into central bank digital currency have not identified the relevant theories that support CBDC development or its usefulness. The reason for this is not far-fetched.

Some might think that '*we don't need a theory to explain* central bank digital currency *development or its usefulness*'. Others might think that '*building a theory to explain* central bank digital currency *development or usefulness is a waste of time*' or that '*a theory that explains the role of* central bank digital currency *in economic processes will not be relevant to practitioners and policymakers*'. Such opinions or conclusions might be wrong because theories play an important role in establishing a set of

DOI: 10.4018/978-1-6684-8397-8.ch004

principles to help us understand how central bank digital currency fits into existing economic processes and economic relationships.

Theories can help us understand who will benefit from central bank digital currency development and its use. Theories can also help us understand how economic agents might be affected by central bank digital currency development and use. Therefore, it is important to identify existing theories that can explain or support central bank digital currency development and use. Neglecting the role of theory in CBDC debates might create a disconnect between 'practical' economic policymaking and the monetary economics academic literature. Therefore, it is important to understand how existing theories support central bank digital currency development and its usefulness. Such understanding can help to create a synergy between central bank digital currency policymaking and the economic literature.

In this study, I present some theories that support central bank digital currency development or its usefulness. This study contributes to the CBDC literature by articulating how existing theories support central bank digital currency development and its usefulness in the economic system. Policymakers and academic economists can use these theories to provide believable explanations for central bank digital currency objectives and outcomes in the economy.

The remainder of the paper is organized as follows. Section 2 discusses the theories that support central bank digital currency development and its usefulness. Section 3 discuss the possibility of developing a central bank digital currency theory. Section 4 presents the future insights and future research direction. Section 5 presents the conclusion of the study.

THE THEORIES

There are eight theories that support the development and use of a central bank digital currency. The theories are the Schumpeter finance and development theory, the innovation-growth model, the innovation diffusion theory, the technology acceptance model, the endogenous growth model, the theory of finance and growth, the dependency theory of development and the concerns-based innovation adoption theory. The theories are explained below.

The Schumpeter Finance and Development Theory

The Schumpeter finance and development theory was developed by Joseph Schumpeter in 1911. The theory establishes a link between finance and development. Schumpeter (1911) states that the presence of uncertainty in an economy gives innovators an incentive to develop financial innovations and technological innovations that influence the level of economic development. The theory also states that the services provided by financial intermediaries – mobilizing savings, evaluating projects, managing risk, monitoring managers, and facilitating transactions – are essential for technological innovation and economic development (King and Levine, 1993). The implication of the theory for central bank digital currency is that the use of central bank digital currency would stimulate financial sector agents to deploy technological innovations and innovative financial services that are interoperable with the central bank digital currency in order to support financial intermediaries in their savings mobilization, project evaluation and risk management activities for greater economic development.