# **Expanded abstract**

## Social Currencies in the Digital Era: Challenges and Opportunities

### **Objectives**

The objectives of this study are multifaceted and seek to address several key questions surrounding the digitalization of social currencies. Firstly, we aim to elucidate the motivations driving the adoption of social currencies and explore the underlying factors that have led to their increasing prominence in contemporary economic discourse. By delving into the literature on social currencies, we seek to uncover the social, economic, and environmental rationales that underpin the establishment of these alternative monetary systems. Secondly, through a thorough theoretical analysis, we aim to delineate the potential benefits of digitalization, such as increased accessibility, broader geographical reach, and cost reduction, while also acknowledging the inherent challenges, including digital exclusion, environmental concerns, and privacy issues. Thirdly, the paper endeavors to undertake an empirical investigation into the levels and determinants of financial and digital inclusion among diverse demographic groups. By examining the factors influencing financial and digital inclusion, the study aims to shed light on the potential implications of digitalizing social currencies for different segments of the population. Overall, the objectives of this study are driven by a desire to deepen our understanding of the complex interplay between technology, finance, and society in the context of evolving monetary paradigms.

### Methodology

The methodology employed in this study for the first part of the research involves a theoretical reflection based on existing literature. Drawing from previous research on social currencies and digitalization, we critically analyze the motivations, advantages, and challenges associated with the complete digitalization of social currencies. By synthesizing insights from diverse academic sources, we aim to provide a comprehensive understanding of the theoretical underpinnings of this phenomenon. This approach allows us to contextualize our findings within the broader theoretical framework of monetary innovation and technological evolution, shedding light on the complexities of transitioning traditional social currencies into digital formats. Through this methodological lens, we endeavor to contribute to the scholarly discourse on the digital transformation of social currencies and its implications for financial inclusion, sustainability, and social equity.

The empirical analysis for the second part of the paper employs logistic multilevel models utilizing data sourced from the Global Findex survey, a comprehensive dataset compiled by the World Bank. This dataset provides valuable insights into the current landscape of financial

and digital inclusion across OECD countries, thereby facilitating a nuanced understanding of the factors shaping individuals' access to and utilization of financial services in the digital era. The analysis focuses on three key dimensions of financial inclusion: account ownership, usage of internet or mobile phones for financial transactions, and mobile phone payment in stores. By employing a multilevel modeling approach, the study aims to identify the determinants of financial and digital inclusion while accounting for potential contextual variations across different demographic groups and geographical regions.

#### **Results and limitations**

The theoretical analysis of the digitalization of social currencies highlights both its advantages and challenges. Digitalization expands the reach of these currencies, facilitates financial inclusion, and reduces operational costs. However, it raises concerns about privacy, environmental sustainability, and digital exclusion. While it offers anonymity, transaction traceability and risks of piracy are concerns. Additionally, digitalization could alienate those with limited digital skills, contradicting the inclusive purpose of social currencies. The debate revolves around whether the benefits outweigh the risks, especially in terms of equity and sustainability. Ultimately, a balanced approach and carefully designed policies are needed to maximize the benefits of social currency digitalization and minimize its negative effects.

The empirical findings yield several noteworthy conclusions. Firstly, the analysis reveals no significant relationship between gender and financial inclusion, indicating that gender does not exert a discernible influence on individuals' access to financial services or their utilization of digital payment methods. However, age emerges as a significant determinant of financial inclusion, with younger individuals exhibiting a higher likelihood of engaging in digital financial transactions compared to older counterparts. Moreover, while higher levels of education and income are positively associated with greater financial inclusion, employment status also emerges as a significant predictor, with employed individuals demonstrating higher levels of financial and digital inclusion. These findings underscore the multifaceted nature of financial inclusion, influenced by a complex interplay of demographic, socioeconomic, and institutional factors.

It is essential to acknowledge the limitations of this research. Firstly, the analysis relies on cross-sectional survey data, which precludes the establishment of causal relationships between variables. Additionally, while the study encompasses a diverse range of OECD countries, variations in data availability and survey methodologies may introduce biases or limitations in the analysis. Furthermore, the study's focus on financial and digital inclusion necessitates the exclusion of other potentially relevant factors, such as cultural norms, institutional frameworks, and technological infrastructure, which may influence individuals' access to and adoption of digital payment methods.

#### **Practical conclusions and original contribution**

The conclusions drawn from this study underscore the multifaceted nature of the digitalization of social currencies and offer valuable insights into its implications for financial inclusion,

social equity, and sustainability. Firstly, our findings highlight the potential benefits of complete digitalization, including enhanced accessibility, expanded geographical reach, and cost reduction.

However, our study also identifies several challenges and risks associated with digitalization, such as digital exclusion, environmental concerns, and privacy issues. These findings underscore the importance of adopting a cautious and inclusive approach to digital transformation, ensuring that vulnerable populations are not left behind in the transition to digital monetary systems. Moreover, our analysis reveals that the digital divide is a significant barrier to the widespread adoption of digital currencies, particularly among older adults, individuals with lower levels of education, and those with limited access to digital technologies. This highlights the need for targeted interventions and policy measures to address digital literacy gaps and promote equitable access to digital financial services.

In terms of original contributions, this study enriches the existing literature by providing a comprehensive analysis of the motivations, advantages, and challenges of digitalizing social currencies. By integrating theoretical insights with empirical evidence, we offer a nuanced understanding of the complex dynamics shaping the digital transformation of monetary systems. Furthermore, our identification of demographic disparities in digital currency adoption contributes to a more nuanced understanding of the potential social impacts of digitalization, informing policymakers and practitioners about the need for inclusive strategies to ensure that the benefits of digital currencies are equitably distributed across society. Overall, this study advances scholarly understanding of the implications of digitalization for monetary innovation and provides valuable insights for policymakers, researchers, and practitioners seeking to navigate the evolving landscape of digital finance.