

# In-depth Study on the Introduction and Application of e-HKD in Hong Kong

fyp24023

# Cheung Hoi Lam

Supervisor: Dr. Chow Kam Pui

## Introduction

- Rapid retail CBDC development around the world.
- HKMA launches e-HKD+ to investigate the possibilities of issuing e-HKD for individuals or businesses.
- Retail CBDC can transform financial systems and enhance payment efficiency.

# **Research Objectives**

- To provide suggestions for banks to introduce e-HKD.
- To identify potential applications of e-HKD.

# Methodology

#### **Literature Review**

- e-HKD development
- e-CNY applications
- Project Sela findings

#### Survey

Collected 81 responses, aimed to gauge public perception of e-HKD.

#### Interview

Follow-up interview with survey participants.

## **Result & Discussion**

#### **Use of Access Enablers (AEs)**

- Provide direct access to end users without ever holding or controlling their retail CBDC balances.
- Able to from an accessible, scalable and secure retail CBDC system.

#### **Functions**

Onboard customers, endorse transaction requests, and ensure the security of the blockchain ledger.

#### **E-CNY** applications

Province	Applications
Beijing	Transport
Chongqing	Trade settlements with Singapore
Jiangsu	Wage payment for civil servant
Shenzhen	Subsidy disbursements
Tianjin	Port logistics

E-CNY wallet allows different levels of KYC, offering a variety of anonymity.

#### **Survey and Interview**

- Respondents lack knowledge about CBDC.
- Public education initiatives on e-HKD is needed.
- Positive attitude on retail usage
- Possibility on using e-HKD for B2C transactions.
- Cross border transactions need resolution.
- Seeking improvement in current daily payments.

# **Challenges Identified**

- Challenging to research e-HKD, as it has not yet been issued in HK.
- Retail CBDC is a relatively new concept that does not have many real-life applications.

#### **Future Research Directions**

- Further research to address the cybersecurity and compliance concerns associated with e-HKD.
- A post-implementation study on e-HKD to explore its successes and failures if implemented.

# Conclusion

- From a retail perspective, e-HKD can enhance payment system efficiency and security through the use of AEs, addressing cybersecurity and compliance.
- Applications include transportation, tax payments, delivery subsidies, and cross-border payments.
- Successful rollout requires public education and incentives to encourage user adoption.