### PLATFORM DESIGN INTO REGIONAL ECONOMIES: CASES OF THE PROJECTS OF BLOCKCHAIN FOR REGIONAL ECONOMIES IN KOREA



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- LOCAL GOVERNMENTS OF KOREA ARE ADOPTING BLOCKCHAIN IN THEIR COMMUNITY CURRENCY TO PROMOTE THEIR OWN REGIONAL ECONOMIES AND INTEGRATE THEM WITH THEIR PUBLIC SERVICES.
- IN THIS PRESENTATION, WE ANALYZE THE TECHNOLOGICAL AND BUSINESS FEATURES OF BLOCKCHAIN; AND COMPARE THEM WITH THOSE OF COMMUNITY CURRENCY; IN ORDER TO DISCUSS THE OPPORTUNITIES AND CHALLENGES IN COMMUNITY CRYPTOCURRENCY



### **CONCEPTS OF BLOCKCHAIN**

BLOCKCHAIN ON TOP OF P2P NETWORK CRYPTOCURRENCY SPIN-OFF IN BLOKCHAIN SMART CONTRACT ON TOP OF BLOCKCHAIN FEATURES OF BLOKCHAIN

#### **BLOCKCHAIN ON TOP OF P2P NETWORK**



#### CRYPTOCURRENCY SPIN-OFF IN BLOCKCHAIN



#### SMART CONTRACT ON TOP OF BLOCKCHAIN



#### FEATURES OF CRYPTOCURRENCY

- TECHNOLOGICAL FEATURES
  - BLOCKCHAIN EMBRACES STRENGTH AT ON-CHAIN AND WEAKNESS AT OFF-CHAIN.
  - BLOCKCHAIN REQUIRES SCALE.
  - BLOCKCHAIN ENTAILS INEFFICIENCY
     IN MINING.

- BUSINESS FEATURES
  - BLOCKCHAIN AUTOMATES ECONOMY.
  - CRYPTOCURRENCY PROVIDES OPPORTUNITIES OF PLATFORM BUSINESS.



#### **CONCEPTS OF COMMUNITY CURRENCY**

ISSUANCE OF COMMUNITY CURRENCY CIRCULATION OF COMMUNITY CURRENCY FEATURES OF COMMUNITY CURRENCY



## **CIRCULATION OF COMMUNITY CURRENCY** 10.00 TWO TWO TWO TWO C TWO $\bigcirc$

#### FEATURES OF COMMUNITY CURRENCY

- POLITICAL INSTRUMENTS
  - SOCIAL WELFARE SERVICES (SN).
  - PROMOTING LOCAL ECONOMY (NW).
- ECONOMIC BENEFITS
  - CAPTIVATING ECONOMY IN COMMUNITY.
  - REDUCING THE TRANSACTION FEE.

- DEFICIENCY AND CONFLICTS
  - DEFICIENT INCENTIVE TO SUSTAINABILITY
  - CONFLICTS WITH LEGAL TENDER



### **COMMUNITY CRYPTOCURRENCY**

**ISSUES IN IMPLEMENTATION** 

MATCHING THE FEATURES

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- WHAT SHAPE OF INCENTIVE SCHEME CAN BE DESIGNED, AND WHO DOES IT?
  - CRYPTOCURRENCY IS A KIND OF REWARD IN MINING.
  - COMMUNITY CURRENCY IS ISSUED FOR PROMOTING COOPERATION AND SOCIAL WELFARE.
- WHO INSTALL THE INFRASTRUCTURE OF CRYPTOCURRENCY?
  - MERCHANTS? CITIZENS? GOVERNMENT?
- WHAT CAN THE BLOCKCHAIN WORK FOR THE COMMUNITY?
  - THE GOAL OF BLOCKCHAIN IS AUTOMATING THE ECONOMY.
  - COMMUNITY DEMANDS PROMOTING ITS SOCIAL WELFARE AND LOCAL ECONOMY.



- MEMBERSHIP AND PARTICIPATION
  - FULL NODES CAN BE CLOSED IN COMMUNITY, WHILE LIGHT NODES CAN FREELY ENTER THE SYSTEM.
  - THE LOCAL GOVERNMENT CAN RESOLVE THE IDENTITY ISSUES THROUGH RESIDENCE DATA.
  - THE LOCAL GOVERNMENT CAN PROVIDE STRONG INCENTIVE TO PARTICIPATION THROUGH THE SOCIAL WELFARE ALLOWANCES.
- ORACLE
  - BLOCKCHAIN DOES NOT MEASURE THE EVENTS OFF-CHAIN, AND REQUIRES ORACLES
    THAT MEASURE THE SERVICES FOR MINING.
  - ORACLE IS ONE OF THE DUTIES OF A LOCAL GOVERNMENT.



- PLATFORM BUSINESS
  - PLATFORM BUSINESS OF BLOCKCHAIN RELIES ON NETWORK EXTERNALITIES.
  - A CLOSED COMMUNITY MIGHT RESTRICT THE GROWTH OF CRYPTOCURRENCY ECOSYSTEM.
- TECHNOLOGICAL APPROPRIATENESS
  - THE AIM OF BLOCKCHAIN IS AUTOMATING THE ECONOMY OF COMMUNITY.
  - AN ASSIGNMENT IS TO EXPLAIN THE APPROPRIATENESS OF BLOCKCHAIN FOR THE PURPOSE OF COMMUNITY CURRENCY: I.E. SOCIAL WELFARE AND LOCAL ECONOMY.



#### **CONCLUDING REMARKS**





- CRYPTOCURRENCY LOOKS LIKE AN APPROPRIATE TOOL FOR COMMUNITY CURRENCY, AND COMMUNITY CURRENCY THE BEST USE CASE.
- IMPLEMENTING CRYPTOCURRENCY IN COMMUNITY CURRENCY CONTAINS DISCREPANCY IN FUNDAMENTAL FEATURES BETWEEN CRYPTOCURRENCY AND COMMUNITY CURRENCY.
- A KEY TO THE IMPLEMENTATION IS DESIGNING THE INCENTIVE SCHEME OF BLOCKCHAIN CONSISTENT TO THE PURPOSE OF COMMUNITY CURRENCY.

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