Tradecoin: deep tier impact finance with blockchain technology

June 16th, 2022
DTIF with Blockchain
Walter Hetterschijt

About me

Quinoah cooperative in Peru

Walter Hetterschijt
CEO @ Annona Deep Tier Impact Finance bv

15 years experience in SME Impact (Trade-) finance in Latin-America and Africa Sub Sahara. Natural products.

Systems thinker. Loves (platform) innovations in supply chains (finance)

Picture a smallholder producer

At the start on lots of supply chains

- No access to international markets
- No access to trade finance (or working capital)
- Small volumes
- Produces what is considered a homogenous product on highly commoditized market without access to risk mitigators. No upside just volume business without the volume; small margins. Competes with estate producers which determine the market, risk mitigation and access to cheap international finance.

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Who are we?

Welcome to ODF

ORGANIC DEVELOPMENT FINANCE

Providing **affordable finance** to high potential **organic agricultural enterprises** in low income countries to increase organic production and achieve **sustainable impact for environment** and people.

Read More

Buyer partner

products

payments on invoices

Supplier-Borrower ← loan ← **ODF** Organic Development Finance

payment X less principal and interest

Who Are We?

ODF - ORGANIC DEVELOPMENT FINANCE
WE PROVIDE AFFORDABLE FINANCE FOR SUSTAINABLE AGRICULTURE AND FARMER LIVELIHOOD

ODF, a Dutch registered impact investment Fund, partners with certified organic agricultural partners worldwide to facilitate access to premium global commodity markets. Our mission is to provide affordable finance to high-potential organic agricultural companies in low-income and emerging countries to increase organic production and achieve sustainable impact for environment and people. ODF's partnership model links producers and processors with selected global buyers, through provision of investment capital and technical assistance.

ODF deploys investment capital that:

✓ Facilitates access to export markets for certified organic growers and producers.

✓ Connects producers with responsible buyers.

✓ Catalyzes business growth and long-term investment

✓ Ensures a fair price is paid for export quality organic produce.

✓ Supports smallholder farmers, encourages job creation for women and youth.

OUR OFFER

Flexible seasonal working capital product.

USD or EUR loans, secured on buyer contracts.

Loan amounts up to a certain percentage of the value of your contract depending on the product, minimum €300,000.

Tenor aligned with the seasonal needs of your business.

Fair interest rates calculated continuously based on actual loan amount outstanding.

Flexible drawdowns based on need. Repaid capital can be drawn down multiple times throughout the season.

Supply Chain Support Services

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Our research question

- To what level of detail can we trace and integrate end-to-end product, information, carbon footprint and financial flows of a supply chain using blockchain technology?
- How can we use this system to feed a risk assessment model that determines end2end risks in deep tier supply chain finance?
- What is the impact of using those developments on blockchain technologies to:
  - Want to increase the impact of deep tier finance solutions for the deepest tiered entities?
  - Increase the assessment of social, economic and environmental criteria of all entities of the chains?
  - Create full traceability on natural products and carbon utilisation
- And what additional benefits does an ecosystem-dedicated tokenization finance solution have on these pillars?
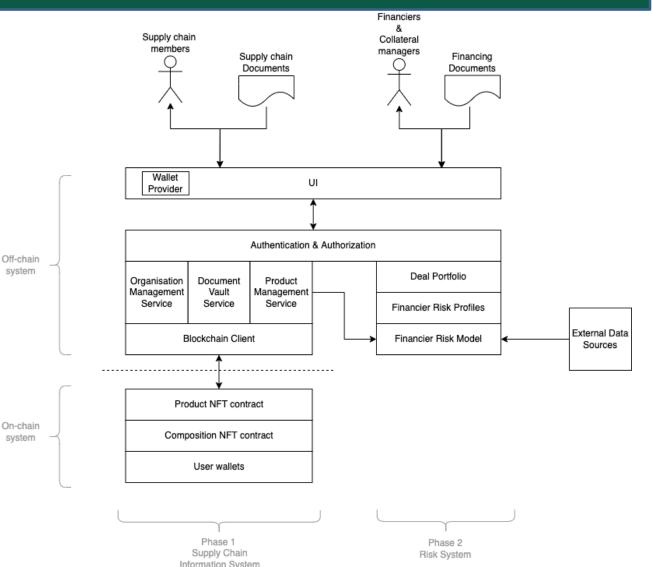
A supply chain finance platform

Information System

- Create *Digital Twin* of supply chain
  - Documents
  - Ownership transfers
  - Product transformations
  - Product logistics
- Document Vault
- Product NFT contract

Risk System

- Risk assessments, monitoring

Example: Product NFT #1

- TokenID: *1*
- Owner *0x123456787*
- Commodity type *Coffee*
- Weight *$400 kg*
- State *In Transport*
- CurrentHandler *0x456789101*
- Transformations *PE1-WA5-SO3*
- Root hash *01dfae6e5d4d90d98926*
- Token URI *vault.blocklab.nl/productNFT1*

Phase 2 – The risk model

Market and price risk

Credit risk

Obsolescence

Operational risk

Physical control

Wallet

Coffee	1x23456789
Coffee	1x23456789
Coffee	1x23456789
Coffee	1x23456789
Coffee	1x23456789
Coffee	1x23456789
Coffee	1x23456789
Coffee	1x23456789
Coffee	1x23456789
Coffee	1x23456789

+

New product

Coffee 🔗
1x123456789

Actions

| Batch + | Split ✂ | Transform ↻ | SC Exit 🚪 |

| Add Information ⊞ | Change State ◈ | Change Handler 👤 |

Trade

| Buy ⊕ | Sell ⊕ |

Potential Financiers

| 0×123456789 (Mr. Financier) | 🗑 |
| 0×123456789 (Mr. Financier) | 🗑 |

Add Financier

Details

Commodity	Coffee
Weight (g)	1000000
State	Transporting
Transformation List	Raw
Owner	0xcbB1F1e8132F2bc42A6d044de57f0386328cD797
Current Handler	0xcbB1F1e8132F2bc42A6d044de57f0386328cD797

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Wallet

Coffee	1x23456789
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Coffee	1x23456789
Coffee	1x23456789
Coffee	1x23456789

+

New product

Coffee

1x123456789

Initial Tokenization   ...

Time:	Yesterday at 12:33
Tokenizer:	5x12345a067e8987b6543ho977 921453
Geolocation:	52.251874, 4.0970427
Document Type:	Coffee

Show More

Tokenizaiton Approved   ...

Time:	Today at 15:15
Tokenizer:	5x12345a067e8987b6543ho977 921453
Buyer	8x392p5804th03468e707587n8 07060w87e
Seller	5x12387b23597hobo2735t97sh2 39872t49

Show More

1×123456789

Filter

- [ ] All Events
- [x] Initial Tokeninzation
- [ ] Ownership Transfer
- [ ] Product Transformation
- [ ] Product Handler Change
- [ ] Product Split
- [ ] Product Batch

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Summarizing

Coffee bean

- Goes from berries to coffee bags with green coffee
- Gains value

Product NFT

- Tracks product transformations
- A digital copy of (a collection) coffeebeans

Risk model

- Tracks loss given default
- Connects the product flow with financial world

Where are we at?

Finalizing phase 1

- A demo for proof of concept to be shown in June
- Experiments in preparation for Q4

Defining phase 2

- Risk model mechanics under development
- Blockchain connection & functionalities mechanics finalized for PoC

More use cases to be worked on soon, in production tests to be done in 2023

Contact Information

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