Using Innovative Mechanisms & Technology to enable flow of funds to Small holder farms

by
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Lending to Small Holder Farmers

**Information Asymmetry**

- Many Crops
- Climate Conditions
- Cultures
- Disorganized Markets
- Cash dominated transactions

**High Operating Cost**

- Operating in deep geographies
- Small holdings
- Cost of cash & collections
- Cost of managing collaterals
- Cost of supervision & monitoring

**Traditional Approach**

**Collateral Based Lending**
- Higher Reliance on Collaterals
- Mortgages, Jewelry, etc...
- Focus on perfecting collaterals
- Use of Guarantors

**Larger Ticket Sizes targeted**
- The cost of disbursement, creation of collateral, supervision, Monitoring, results in break even in a ticket range of 5 Acres – for field crops like Corn, Wheat

**Innovation**

**Knowledge Based Lending**
- Leverage Info available with off takers
  - Crop Specific Customer Profiles
  - Region culture /
  - Market information

**Economic Density Readymade**
- Created by the VCF partners
- Build Payment Systems around them
- Shared monitoring & supervision Data / early warning
Identify supply chains

**Standard market structure**

- **Farmer**
- **Aggregator**
- **Processor** or **Broker**
- **Wholesale seller**
- **Retailer**
- **Consumer**

- Banks are looking for progressive borrowers & their cash flows
- Farmers are looking for stability and suitable profit margins
- Traders love volatility - it is their interest to keep the markets disorganized and restrict the flow of information to fuel volatility

Can we use technology to change some of this? Is the market ready and willing?
For e.g the Dairy supply Chain in India

- India is the largest producer of milk in the world with a 16% share 135MMt
- 300 million heads of milk cattle managed by rural households producing a mere 3 lts a day against a global average of 6.
- India is also the largest consumer of milk with consumption growth of 5% and production growth of 3%.
- Quality issue remain - residue & contamination (antibiotic, metal) and general hygiene

Milk Processing

Unorganized Sector 88%
Organized sector 12%
Co-operative Sector 45%
Private Sector 55%

Most company’s operate a Mop up operation thru aggregators

Value Add – includes feed and animal health, IVF etc...
Currently managed through aggregators by most company’s

Company’s are keen to go direct to farmers – to improve quality productivity and sustainability requirements of overseas markets, but with minimal disturbance to the aggregators
In the traditional model the company Transacts only with the aggregator.

Aggregators manages supplies by extending small credit to farmers

Farmers Purchase cattle through own savings or approach informal sources

Company’s are highly dependent on these aggregators which is a big risk

They are also have no control on quality, traceability and sustainability
Entering the supply Chain

**Company**

- **Farm Extension Services provider**

**Farmers**

- **Aggregator / collection agent**
  - Milk agent
  - Bank Agent (BC & Collection agent)
  - POS Device installed

**Enabling Payments**

- Enter MOU with company to do payments to farmers
- Open farmer accounts.
- Aggregator made BC obtaining by-in using Company support
- POS Device installed to handle transactions online with the bank system & Training
- Standard bank products cross sold to generate revenues

**Bank**

- Cattle loans

**Informal credit**

- Payments

- Milk

- input

- Milk
**Credit model**

- **Credit Phase**
  - Cash flows thru the payment model assessed
  - Aggregator made BC & loan collection agent provides a First Loss Guarantee
  - Insurance Process: Vet – examine new animal uploads health report with Photo of animal into the Insurance Co’s system thru a Mobile phone app
  - Bank officer visit
  - Insurance data downloaded & bank officer data matched at sanction stage

- **Farm Extension Services provider**
  - Milk agent
  - Bank Agent (BC & Collection agent)
  - POS Device installed

- **Company**
  - Milk input
  - Payment

- **Aggregator / collection agent**
  - Milk
  - Milk agent
  - Bank Agent (BC & Collection agent)
  - POS Device installed

- **Farmers**
  - Net payment
  - Cattle loans
  - Insurance

- **Bank**
Tech intervention

- **Company**
  - Milk input
  - Milk agent
  - Bank Agent (BC & Collection agent)
  - POS Device installed
  - Milk Quality device link to POS

- **Aggregator / collection agent**
  - Milk data / payment file

- **Farmers**
  - Milk
  - Milk quality and quantity at the collection center converted to a data file by Milk to Money device

- **Bank**
  - Data transfer to the Company’s ERP system (provides transparency and traceability)
  - Generates a payment file provides STP Payment processing at the Bank end
  - Uses the communication device in the POS to transmit data
  - Provides CRM data

**Monitoring Phase**

- Milk quality and quantity at the collection center converted to a data file by Milk to Money device
- Data transfer to the Company’s ERP system (provides transparency and traceability)
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Risk Coverage Assessment

Farmer → Aggregator → Processor

**Payment Risk**
- Covered by the payments model

**Performance**
- Cash flows analysis provides insight to the farmers track record
- Know the cattle breeds that best perform in the environment; adjust product

**Supply Risk**
- Supply Track record with the company
- Security taken to cover First loss guarantee acts as a deterrent

**Off taker Solvency**
- Credit worthiness of The processor / off-taker Is an important success & Sustainability criteria

**Side selling risk**
- Entrusted to the aggregator

**End use of loan**
- Insurance process Ensures end use

**Information helps convert Credit risk to operating Risk**
**Operating risk can be Automated which gives Major cost savings**
Value chain finance – general principal

**The actors in a VC**

- Farmer
- Aggregator
- Processor

**Principle of VCF**
Cash flow behind the Commodity – Follow the Money

**Payments**

**Mop up VC**

- Standard Products
- Modified Standard Products

**Value added VC**
Structured product

- Structured Products
- First Loss structure

**Risk**
- Information
- Credit Risk
- Operating Risk

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Selecting a VC

A. Macro & Micro Analysis

- **Macro:** selecting the Crop based on the growth Potential / Domestic/ Global markets / volatility
- **Micro:** Selecting the right geography / culture etc.../ local data trends

B. Selecting the right Off Taker /Anchor Company

- **Strong Financial / Weak VC process**
- **Acceptable Financials / Good VC Process**
- **Weak Financials / Strong VC process**

Balance sheet strength vs Strong VC processes

- H: High Banks operating cost
- M: Medium Banks operating cost
- L: Low Banks operating cost
Progress so far & looking ahead

- 7000 farmers, US$16 MM funded in the first phase
- Delinquencies of under 2%
- Product tweaking incentives & disincentives based on “cattle breed performance”, tweaking installments for lean and flush season and strengthening bank & insurance process.

Impact analysis:
On a sample basis farmer savings account balances were examined from the pre-loan days to post loan over a period of 12 months. Farmers having availed loans recorded a Savings balance growth of a multiple of 4 on an average.

The future lies in Smart phones and mobile Apps for related payments in the eco system with decreasing Data and Handset costs.

Reduces the delivery cost on the model and the same time increase business from other sources in the eco system using the data available.
About HDFC Bank

- Vintage : 20 years
- 2nd Largest Pvt Sector Bank in India (largest by Market Cap)
- Balance Sheet : $ 79bn (Dec 14)
- Branches : 3403 (Dec 14)
- ATMs : 11,256
- Cities /Towns / Villages : 2171
- Agri Business : $ 3.8bn

- Asiamoney : Best of Best Domestic Banks – India
- Barron's List of World's Best CEOs - Mr Aditya Puri, HDFC Bank MD, named in list of Top 30 Global CEOs
- BrandZ™ Top 50 Most Valuable Indian Brands study by Millward Brown
- India's Most Valuable Brand Business Today - KPMG Study 2014
- Best Large Bank – Overall Businessworld-PwC India Best Banks Survey 2014 Fastest Growing Large Bank
- Dun & Bradstreet - Polaris Financial Technology Banking Awards 2014 Best Bank - Managing IT Risk (Large Banks)
- Euromoney : Private Banking and Wealth Management Survey 2015
- Finance Asia Country Awards 2014 Best Bank - India
- Finance Asia's poll on Asia's best managed companies Best Managed Company in India
- Finance Asia's poll on Asia's best managed companies
- Best CEO in India (Mr Aditya Puri) - Rank 1
- Best Corporate Governance - Rank 3
- Forbes Asia : Fab 50 Companies List for the 8th year
Thank you