7. ADAPTING BANK STRUCTURE AND OPERATIONS TO THE VCF MODEL

- **How does a bank adapt to the services associated with VCF?**
- **What procedures need does a bank need to put in place?**
- **What are critical contract clauses in VCF?**
  - With a value chain approach, financial institutions can obtain a holistic view of the connections their clients have with other value chain actors and use this knowledge to offer services and tailored financial products to address and mitigate risks traditionally associated with the agricultural sector.
  - Monitoring and maintaining clear means of collecting payments are crucial. Sales forecasts, profitability, and capital flows help anticipate loan repayment issues that may arise.
  - Internal bank proposals are prepared based on an evaluation of the value chain as well as client's analyses and are submitted for approval. Sometimes these proposals represent pilot projects within existing bank standards (e.g., loan amount caps) or they might be expanded and revised iterations of previous pilots.

This chapter examines the adjustments the banks make when adopting the VCF approach. While the mainstream functions of the bank remain, the scope of their work changes due to the need to incorporate the intra-value chain relationships among the bank's partners in the chain and among other participants.[20]

20. This chapter draws primarily upon presentations at the AgriFin Bootcamp 2014 by Ömer Demirhan, with Yapi Kredi Bank of Turkey. Personal exchanges with and contributions from Michael Andrade, HDFC Bank, India are gratefully acknowledged.

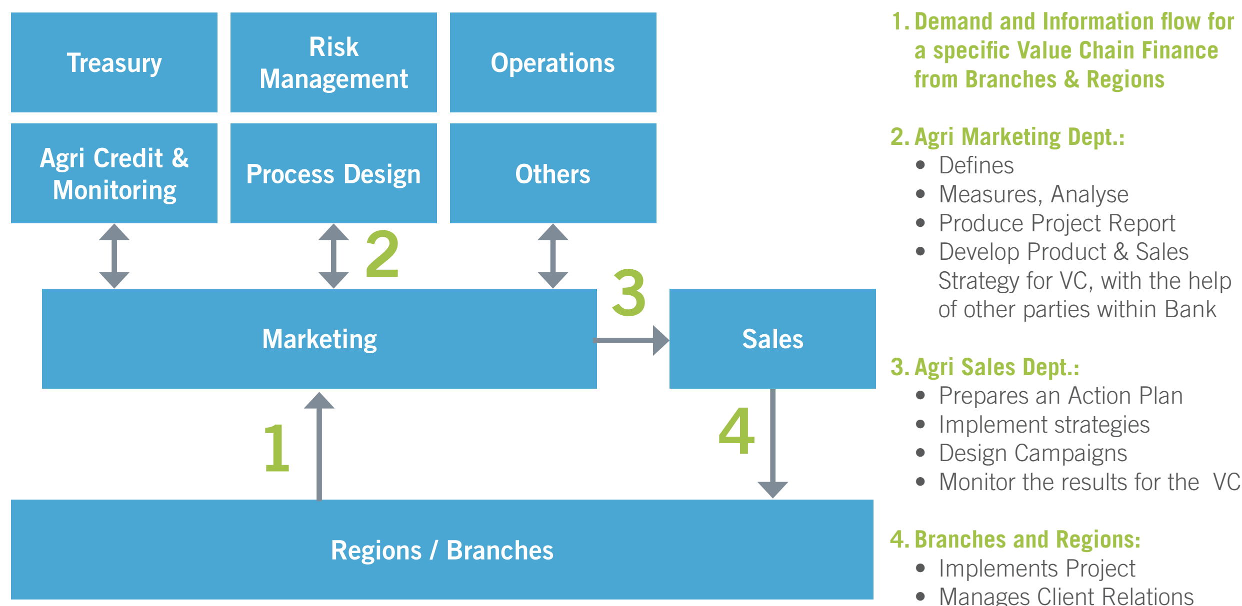
Relationship management – managing a VCF deal inside the bank

Rather than creating a dedicated "value-chain department," banks tend to manage their value chain engagements by allocating specific analysis and processing functions across their existing units; e.g., marketing, sales, commercial credit, agricultural credit, risk management, etc. Primary responsibility for a VCF relationship typically depends on the nature of the relationship of bank individuals or teams with the trade or agribusiness side of the value chain.

For example, if the VCF operation will expand upon an existing relationship with a major processor or aggregator, the office in charge of that client relationship may then hold primary responsibility for the entire operation. If, however, a VCF operation will reach out to multiple aggregators (e.g., SPOs in India), responsibility may be shared among several regional managers. When entering a brand new value chain using a pilot project within the bank's existing standards (e.g., loan caps), a small team drawn from several units may be assigned responsibility for design and implementation. As the relative importance of VCF operations in the bank's portfolio increases, the bank may create a specialized team with primary responsibility.

Figure 7.1 provides an example of a bank process to undertake a relatively major value chain operation for Yapi Kredi Bank and the broiler industry in Turkey. In this example, functions and roles are allocated across existing headquarters and branch/regional units.

Figure 7.1: Industry analysis for a value chain in Yapi Kredi



Source: AgriFin VCF Bootcamp, 2014

Credit policy and processes

As suggested earlier, value chain finance does not necessarily require major changes in credit policies and processes, albeit loan contracts with different value chain participants can include special clauses grounded on value chain relationships. What differs from conventional loans are analysis of credit proposals and client assessments. The stability of the processor/aggregator relationship with suppliers is evaluated and production risks are usually taken into account, going beyond the traditional assessment of the viability of the client's business. A bank may collect and analyze information for a value chain as a "project" and create forms and pro-forma reports for internal processing. An example is provided by the case of Yapi Kredi (Figure 7.2).

Figure 7.2: Credit evaluation of a Turkish poultry operator

Profit of a Broiler Farmer of 20K chicken capacity

REVENUES	
Weight per mature Broiler	2.5 kg
Payment for 1 kg (avg.)	0.4
Duration for 1 period of production	60 days
# of production periods within a year	6 times
Sales Revenue (TL, yearly)	**120.000**
COSTS	**Unit Cost TL/Unit)**
Labor	0,07
Electricity, Fuel and Water	0,2
Repair and Maintenence	0,02
Underlay (wood shavings)	0,15
Others(General - Unexpected Expenses)	0,016
Total Cost Per Unit	0.46
Total Cost for 20K Broiler (x6 period)	**55.200 TL**
NET PROFIT	64.800 TL

Data for VC Broiler production is embedded in the Bank's **Agri Loans Evaluation System** also, with a «*Broiler Questionnaire*» for efficiency and quality

The Bank plans to serve below products to this farmer:

Bank Products/Services	TL
Operating Loan (revolving/ installment)	41.400
Agri Card limit	4.140
Investment Loan (5years maturity)	290.000
Create cash flow from broiler payments*	720.000
+ Products/Services to other parties of VC	(value)

* 120K TL for 6 times in a year

Source: AgriFin VCF Bootcamp, 2014

Critical clauses in contractual arrangements

The nature of contractual arrangements between the bank and its value chain clients vary widely depending upon the legal environment for business transactions. In the VCF model, the quality (i.e. enforceability) of contracts between value chain participants impacts how the bank will set collateral requirements for aggregators and farmers (including first-loss guarantees from processors).

Risk management provisions (discussed in Chapter 6 above) make reference to formal contracts between aggregators and producers and their enforceability as part of the criteria in evaluating aggregators. If formal contracts between producers and an aggregator exist and are enforceable, then an "assignment of claim" is introduced in favor of the bank at the time the bank assumes the funding role. This means that

the aggregator (or processor) will play the role of loan collector for the bank as part of their agreement.

Legal contracts between bank and aggregator will typically make reference to the assignment of claim as an obligation of the aggregator and include subsidiary clauses that ensure repayment, even in the case the producers have defaulted on their contracts with the aggregators. The contract may also establish claims on aggregator property (e.g., mortgage on buildings or other tangible assets) even when the aggregator provides a first-loss guarantee, or when there are other guarantees in place.

It is important to remember that the strengths of the contractual relationships and legal agreements will typically influence the structure of any pact with the main anchor firms or aggregators; i.e., the terms (interest rates, maturity) under which they receive financing, the revenue sharing in the form of commissions or fees, the coverage of first-loss guarantees, etc. If all goes well and a stable relationship is created after a couple of business cycles, terms can be softened and revenue sharing adjusted.

VCF loan management

VCF loan implementation and monitoring typically follows the bank's established practices, albeit with the recognition of the value chain context. Turkey's Yapi Kredi, for example, has defined criteria for placing customers on a watch list in cases of delayed repayment. It also has created a list of basic principles to follow in such a situation that consider whether the problem temporary or permanent, and if the problem affects only one party in the value chain or all participants. Information is subsequently entered into the risk monitoring system (Box 7.1), and in the customer's file.

Loan monitoring and early warning systems under the VCF approach will include consideration of the overall value chain risks, and not just those directly associated with the individual client. Box 7.2 offers an example from the India case study.

Box 7.1: Roles for monitoring

Yapi Kredi has developed RiskMon, a centralized, automated monitoring system for all customers, connected to three different inter-bank bureaus (Central Bank, Retail and Corporate Credit Bureau, Ministry of Finance). The system retains historical data, facilitates analysis, derives strategies and takes action.

What does RiskMon do?

1. Monitors 34 types of customer anomalies, including:
   - Delinquency in all types of loans and credit, including value chain loans and agriculture cards
   - Unpaid checks, fees
   - Payments not received to "transfer account"
   - Stagnation/increase/decrease in credit balances
   - Loan default/restructuring
   - Delinquency in tax, social security payments, notes
   - Deficit in collaterals
   - Negative balance in revolving loans/overdraft account for consecutive 180/90 days, respectively
2. Produces behavioral scores looking at:
   - All anomalies
   - Discrepancies in financial figures
   - All delinquencies
   - Demographic figures
3. Determines the customer classification (rating)
4. Determines strategy and action (with due dates) for customers: close monitoring, assistance, freezing/contraction of limits, amortization, liquidation
5. Processes data from credit bureaus, the risk management unit and other units in the bank, and checks data from the central bank, the the Ministry of Finance (for arrestments and encumbrance of tax, social security, and note payments), and retail and corporate credit bureaus that collect all information for consumer and commercial loans and agriculture loans evaluation systems (connected to farmer registry databases).

Roles for Monitoring – *Intelligence and sector reports*

- Intelligence Dept. the Credit Group of the bank has to produce a special report for limits above US$350,000. Regardless of the amount, the unit with loan authority (branch, regional manager, head office) may want an intelligence report for any customer
  - Intelligence Dept. consists of credit specialists, each of whom are experienced in specific regions and sectors (no special personnel for value chains)
  - Intelligence reports contains nearly the same headlines of Customer Intelligence Report, with two extra sections (mystery shopping from the market, and the financial institutions)

Agri News Bulletin prepared by Underwriting Team through news, national statistics, agriculture chambers' reports

Sector outlook is reported by Agri-Banking Marketing Dept. to explain the effects of below cases (bank's consultant also produce, upon request):

- Drought, floods, hail, heavy rains & snow
- Dramatic price changes in a region or at a specific agri-product
- Government regulation / intervention for a specific sub-sector or product.

Box 7.2: A bank's early warning system

A good credit product will necessarily be accompanied by measures that explain, monitor, and manage risk. Any early warning system will need to incorporate both the formal and informal sources of information that will be processed within the bank at various levels. This information will emerge from the relationship with the anchor company, the seed producer organization (SPO), and also from the local bank staff and the banking correspondent. HDFC Bank monitors the following factors to identify and address problems as soon as they arise:

1. Staging release of crop loan timed to key crop stages and concomitant money needs. Labor component is a big cash drain (for the farmer who contracts labor). A high labor requirement exists at the time of 'crossing' and also at the harvesting stage.
2. Company's continuity of farmer relationships; the number of repeat farmers and ability to attract new farmers. This is a very important indicator of the trust that the seed company is able to build.
3. Yield estimates; companies normally monitor crop progress and frequently estimate the likely harvest yields for the hybrid seeds. This information is crucial to estimating the how well its parent seeds have been used (or sold in the open market) and also serves as a means of understanding likely farmer income and seed availability for commercial sales
4. Changes in the company's planted acreage over time for the same crop. This is an indicator of the company's performance in the market. A decline in acreage would indicate a potential risk
5. Changes in famer's family situation; illness, death, wedding, birth, acquisition of farm and non-farm asset, etc. Informal tracking of these developments allows for a better understanding of the likely usage of available cash and assets. It also indicates if the farmer is able to repay loan on time.
6. Changes in the tenancy structure of the land holding.
7. Changes in weather conditions; adverse weather-related events could have a major impact on the farmer's ability to produce quality hybrid seeds. Delayed rains, inadequate water supplies from upstream canals, temperature changes are all contributors to the performance risk of the crop. While the company would normally monitor these situations, it is important for the bank to have a macro-level track of weather conditions in the regions where it is providing loans.
8. Changes in availability of factors of production; labor, water, energy, etc. Diversion of resources to other agriculture crops, to development of newer industries (e.g. the creation of two states from the erstwhile Andhra Pradesh is likely to create pressure on agriculture land), growing urbanism are all factors that will have a negative influence on the development of strong agriculture value chains in hybrid seed
9. Seed Producer Organization structure, e.g. changing field staff to farmer ratio, expansion of other (non-seed production) business interests, addition/deletion of companies forming part of the seed production clients, are elements that bank would need to track. The social capital that the SPO enjoys - its reputation in the community - is by far the most critical asset.

Source: HDFC, AgriFin. 2015.