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Financing Agricultural Value Chains: With FPOs as Pivots

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India has come a long way from being a food-scarce nation in the 1960s to a food surplus nation thereafter. However, the record levels of production that India has achieved has not translated into increased well-being for the farming community in India in a commensurate manner. A vital cog in increasing farmers' income will be the extent of credit penetration to the ultimate farmer. With changing consumer preferences towards branded, well-packed, safe and healthy food there has been increasing focus on organized agriculture value chains (AVCs) and their financing. Farmer producer organisations (FPOs) and supermarket chains will play a very important role in this revolution. This paper proposes AVC financing models with FPOs and supermarket chains as anchors.

Agri Value-Chain– A Key Approach

A value chain is characterised by a market-focussed collaboration of a set of enterprises working together to produce, process and market products and services in an effective and efficient manner. The set of actors conduct a linked sequence of activities and act in an inter-dependent complimentary way within the value-chain. A well-functioning agri value-chain integrates small holder farmers with other key actors and higher order processes. This facilitates access to quality farm inputs, technology, quality standards, hassle free credit, access to processing and market link, etc.

In India, the traditional agri value chains in existence are small scale, unorganised, fragmented and disjointed where the produce traversed through several channels and players, often redundant, requiring several touch points at the farm gate end. An organised agri value chain, in contrast, allows the value chain intermediaries coordinate their value creating activities with one another and, create greater value than otherwise.

Existing Value Chain (VC) models in the country are of 4 types which primarily seek to reduce transaction costs and maximise the benefits to the driver of the VC (Table 1). All these models have an inherent bias toward interests of the driver and hence, are not Pareto optimal.

Table 1: Agriculture Value Chain Models

Type	Aim/Benefit	Driver	Examples
1. Producer Driven	Producers' share in the consumers' rupee	Cooperative society/ Producer Organization	Amul
2. Buyer Driven	Seamless availability of produce to meet consumer demand	Processors, exporters, retailers, traders and wholesalers	Contract farming of milk by Nestle India Ltd., potatoes by PepsiCo
3. Facilitator Driven	Provide market access for the small and marginal farmers	Government Agencies, NGOs, Banks, CSR wings of corporates	Mahagrapes, Mother Dairy Fruits and Vegetables Limited, Kesla Poultry Cooperative
4. Organised Food Retailer Driven@	Keeps consumer demand at the core	Organised food retailers and food delivery agencies	Bigbasket, Grofers(blinkit), Reliance Retail

@ It is a variant of Type #2 but is distinct due to demand for their services & competition post-covid
Source: Modified extending Miller and Jones (2010)[2]

1 GM, Maharashtra RO; AM, DEAR, HO and CGM, DEAR, HO, respectively

2 Miller, Calvin and Jones, Linda (2010), Agricultural Value chain financing – Tools & lessons

VC Approach defines the Future of Agriculture

Value chain approach is the preferred method to link farmers with consumers today than earlier. For (i) demand for agricultural commodities expanded and diversified in line with consumer tastes and preferences for branded, well packed, exotic, off-season, healthy and safe food at door steps while the supply chain arrangements are still in traditional mode, (ii) producers have increasing urge to discover markets, even overseas[3], (iii) food & grocery segment accounts for 60% of India's retail market, and, (iv) facilities at the farmers' end of VC remained inadequate and unorganised in contrast to modernisation at the consumer end stifling the balanced growth of VCs.

But it has been difficult to organise agricultural value chains in India due to constraints like: absence of anchors with stake and vision, high procurement costs due to myriad small producers, low quality produce, large number of intermediaries, lack of enough post-harvest infrastructure, lack of agile institutional framework and lack of access to low-cost finance.

Agriculture Value-Chain Finance (AVCF)

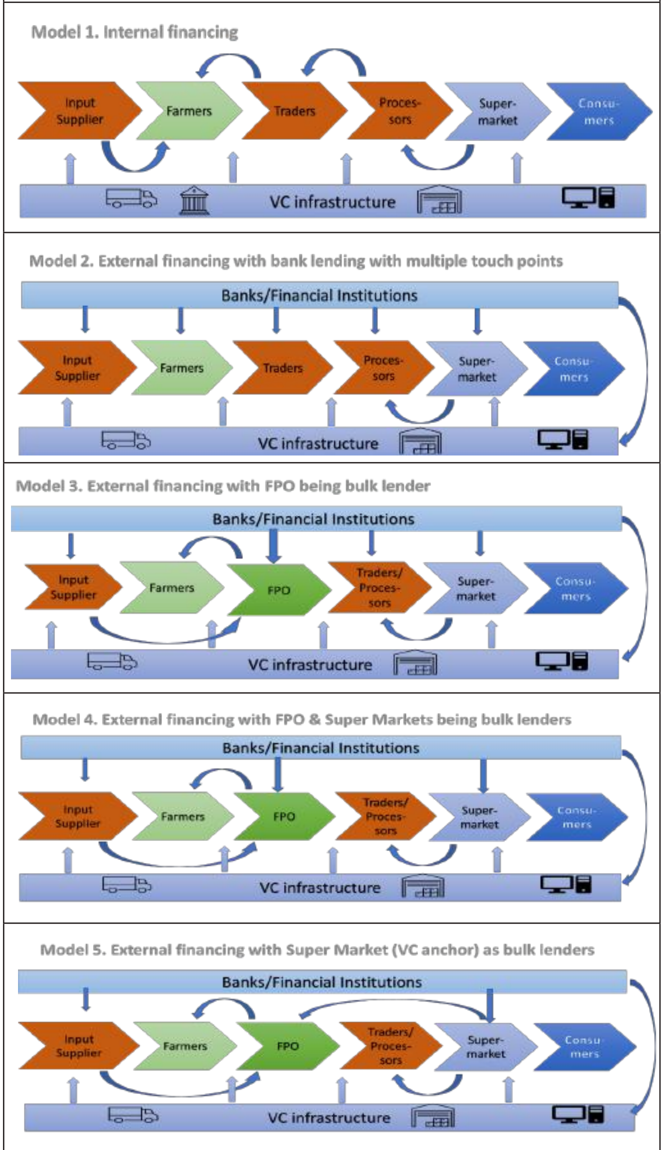
Value chain finance refers to the flows of funds to and among the various links within a value chain. It covers financial services, products and support services flowing to and/or through a value chain to address the needs and constraints of those involved in that chain.

We maintain that it is important for banks and financial institutions to identify the lead firm/anchor among the players in the value chain who can act as intermediary to enable credit to percolate to other players in the chain. Based on this premise, we propose 5 broad models of value chain finance with possibility of variations thereof (Figure 1).

In Model 1 financing takes place mostly within the value chain (internal financing). Eg. a supplier providing credit to a farmer or a lead firm advancing funds to a market intermediary. Financial institutions may or may not involve. This model utilises relationships and transaction mechanisms already in place. But informal credit arrangements may exploitatively bind the vulnerable players with the resourceful VC partners.

Models 2 to 5 are variations in external value chain financing. In Model 2 bank deals with multiple players in the VC. As all players in the chain may not be able to avail formal loans, informal and internal lending is possible.

Figure 1:Broad Models of Value Chain Finance



These two models are commonly found in reality. We propose Models 3 and 4 where FPO anchors farmers needs and Model 5 where the VC anchor (supermarket) takes care of the needs of all including FPO. The major features of these models are given in Table 2. Supermarket chains/food retail companies and delivery start-ups such as Reliance retail, Big Bazaar, Amazon Fresh, Big Basket, Swiggy Instamart, Fraazo, Grofers, etc. have their own outlets or directly deliver products home. Banks will have two entry points for value-chain financing. Management of credit requirement of farmers can be done by FPOs whom in turn the banks can finance as was the case in the third model. The credit needs of players beyond aggregation like processors, distributors can be managed by the VC anchors.

[3] The Agri Export Policy, 2018 which seeks to double exports by 2025 has identified 20 agri commodities in 100 districts as having export potential and the policy emphasizes on the value chain-based approach for export promotion.

Under some of the existing AVCF practices, some NBFCs provide integrated services directly (or through group companies) to farmers and forge tie-ups with corporates for produce marketing. Banks cannot replicate similar models. They may utilise services of FPOs which can fill this gap by providing integrated farm management and post-harvest services to farmers. Also, banks can opt for co-lending option for banks with NBFC-MFIs as permitted by RBI (circular dated 5 November, 2020)[4] to take advantage of greater reach of the NBFC-MFIs.

Table 2: Models for VC Financing

Parameter	Existing practice	FPOs as the anchor for farmers	With VC anchor (VCA)
Models	**Models 1 and 2**	**Models 3 & 4**	**Model 5**
Modus operandi	Business as usual approach. Banks give loans to whoever they can and informal lending happens. There is no anchor for the VC	Model 3. FPOs take bulk loan from banks & lend to members Model 4.FPO and Food retail company as two anchors	Financing through VCA which will aggregate the credit needs of the entire VC including producers and negotiate with the bank
Pluses:			
Producers/VC partners	No specific benefits	Lower transaction costs, lesser hassles and cost of documentation, loans possible without individual security	TC of VC partners decline. Small players too can access credit easily. Certainty of supply, direct from farmers at lower cost
Banks	Same as above	Lower transaction costs, higher recovery probability	Lower transaction costs due to wholesale credit, Higher recovery probability
FPO Management/ VC anchor	Not applicable	FPO can earn commission on credit transaction	FPO/Anchor can earn commission
Minuses:			
VC nodes/partners	High transaction costs. Suboptimal, high cost borrowing. No coordination among players. Hence, duplication of efforts leading to inefficiency. Exploitative tie-ups among VC players	VC operators other than farmers will have to continue with existing credit arrangements; FPO management bears the accountability	VC Anchor/FPO management will bear additional accountability and load of financial transactions
Banks	High transaction costs. Suboptimal lending. Have to deal with multiple players. More effort per unit business	Concentration risk	Concentration risk
Other issues		Regulatory concerns to be addressed	Regulatory concerns to be addressed

FPOs can also serve as a mechanism to strengthen contract farming. The Model Contract Farming Act, 2018 recognised the important role that FPOs can play in promoting contract farming. FPOs can play the mediatory role between the farmer and the sponsor and thus reduce the chances of exploitation that an individual farmer would face if he/she negotiates the contract directly with the sponsor/corporate. An interesting comparative case study analysis conducted in Gujarat as part of a study under the NABARD Student Internship Scheme documented the benefits of contract farming with involvement of FPOs vis-à-vis a situation where FPOs do not serve as an intermediary as follows (Table 3)[5]:

4 Reserve Bank of India (2020), Circular on co-lending by banks and NBFCs to Priority Sector.

5 Strengthening of Agri-Value Chain Financing through Farmer Producer Organisation, NABARD Student Internship Report, 2021-22 (Student: Ms.Palak Jain), Gujarat Regional Office, NABARD, Ahmedabad.

Table 3: Contract Farming Models with and without FPOs		
Basis	**Contract Farming Model (with FPO involvement)**	**Contract Farming Model (without FPO involvement)**
Differences		
Contract language	Vernacular language or both English as well as vernacular language	English only. Contents explained verbally
Copy of contract	Retained by farmer	All documents retained by the company after farmer signature
Grievance redressal	Grievance redressal more efficient due to collective bargaining power	Grievance redressal long drawn, complex and time consuming
Bargaining power	Collective. Hence more efficient.	Long drawn, complex and time consuming
Management	Relatively better with consultations with farmer groups	Poor. Lack of consultation with individual farmers
Supervision	Better. FPOs able to ensure that farmers comply with instructions given by company	Not much except regular visits by company officials
Input procurement	Easier as FPOs help in procurement of inputs other than seeds (e.g., fertilisers, pesticides etc.) in proper quantities and at affordable rates	Difficult as company only provides specific inputs like seeds and the remaining need to be purchased by farmer from the market at higher rates
Similarities		
Same model of seed input supply followed in both models i.e., by the contracting company		
Similar compensation mechanism in case of failure of produce		
Similar risk of lower price discovery as compared to market prices in a particular year		

For AVCF to be successful, there should be enabling ecosystem where infrastructure and common facilities are available at competitive costs. For example, every VC player needs storage (normal and cold), transport or logistics, ICT, IT enabled services, AI and other advanced digital infrastructure services. Development of post-harvest infrastructure through GoI programme like Agri Infrastructure Fund (AIF) scheme that can build capacities at PACS, FPOs, Agriculture entrepreneurs, Agri start-ups, level can facilitate AVCF.

Agri start-ups and Fintechs can revolutionise the AVCF.[6] They can help to provide agile, efficient, low cost and differentiated experiences to the VC players. They can democratise the existing services like invoice-based trading, Trade Receivables Discounting System (TReDs), digital connectivity within the agri value chains, blockchains, etc[7].

Innovation defines the Future of AVCF

Banks should gain a deeper understanding of the nature of business of each actor to design suitable credit products. They should be willing to innovate and take calculated risks. A national level policy on agri value-chain coupled with suitable financial architecture and infrastructure is needed to make Indian agriculture, especially the small holder farmers more vibrant and prosperous. All stakeholders need to be on board. Value chains cannot survive if the players usually those in interface with consumers maximise individual benefits. Maximising collective gains is the key where every player has to gain something from the VC and should connect to it. Business as usual approach will not help as the VCs are modern and futuristic while our existing policies are rooted in the past. Innovation and disruption are the buzz words for AVCF revolution.

6 (2021), India AgriFood Startup Investment Report, AgFunder.

7 (2019), Keynote Address delivered at Fintech Conclave, on 'Opportunities & Challenges of Fintech' by Governor, RBI.

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