Journal of Economics and Sustainable Development
ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online)
Vol.3, No.10, 2012

Value Chain Financing: Strategy towards augmenting growth in agriculture sector in India

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Abstract

Value chain[1] has been an important concept in management offering improvement over the traditional supply or distribution chain, with an aim to optimize the chain and reduce it to limited links with each one performing an activity to enhance the value of the product and not merely the cost. Further, management of such value chain network should focus on cohesively taking the stake-holders along and sharing / spreading the benefits among them, such that the network becomes symbiotic and sustainable, and the process of value-addition & delivery gets ethical. In this research article researcher aims to highlight the key value chain activities in context to agricultural products and suggests the importance of value chain financing which requires due attention from National and Regional level financing corporations.

Keywords: Value Chain, Value Chain Financing, Financial Economics, Management Economics.

[1] Value Chain – Concept from business management first described by Michael Porter in *Competitive Advantage: Creating and Sustaining Superior Performance,* 1985.

1. Introduction

Today, the world is in the midst of a consumer revolution. The lifestyles, eating habits and the taste for the goods are changing drastically. The consumers in many countries are very conscious of what they eat and how they eat. People are not simply accepting the traditional lifestyle or the traditional eateries. Income levels have risen further influencing the tastes, choices and consumption patterns. This creates a new paradigm where the entire food system is driving the growth in agriculture and agribusiness, with better prospects for stakeholders. *The choices, tastes are the driving factors for the value addition in agricultural supply chain*.

Calvin Miller of FAO (Food and Agriculture Organization of the United Nations) explains:

"A supply chain in agriculture can be thought of as a "**farm to fork**" process – from the inputs to production to processing, marketing and the consumer. Each level has one or numerous linkages. The unit value is increased as a product moves along the supply chain. Therefore, the **value chain** consists of a series of activities and relationships that add value to a final product, beginning with the production, continuing with the processing or elaborating of the final product, and ending with the marketing and sale to the consumer or end user. The interdependent linkages of the chain and the security of a market-driven demand of the final product provide the producers and processors with an assured market for their products. This reduces risk, thus making it easier to obtain financing and at lower cost from banks and other financiers. The linkages also allow financing to flow up and down the chain."

In fact, Value chain finance is not new, but is older than many forms of finance, especially in agriculture. What is new are the numerous new ways of providing such financing as well as the convergence and inter-linking of agribusiness and finance. It is receiving a lot of attention today. Business leaders in both finance and agriculture have come to realize that with the new innovations in communication technology, information management, etc., there is a wealth of new opportunities for them to profitably work together. It can be a win-win situation to reduce transaction costs and reduce risks. Many of these innovations are quite new, which is why we need to learn these innovations.

> A "**value chain**" is the full range of inter-related productive activities performed by firms in different geographical locations to bring out a product or a service from conception to complete production and delivery to final consumers" – Definition by **UNCTAD**

2. Present Scenario

Some Facts:

The overall value addition of agriculture produce in India is less than 2% compared to more than 40% in other developing countries like Brazil, Malaysia.

The long and fragmented supply chain coupled with lack of modern storage, transportation, processing and marketing facilities / infrastructure lead to deterioration of the quality and value-loss of agricultural commodities.

Too much intermediation by Commission Agents / Arthias at various levels, un-scientific handling of agriculture produce, multi layer marketing etc add further to the sufferings of the producer-farmer.

Significant investment opportunities are likely to arise in the market, for both basic and high value foods, where demand can be driven by rising incomes and price reductions achieved through increased integration and efficiency in the supply chain.

Minimizing the market risk the farmers are exposed to, should be the primary objective, specially for both perishable and comparatively durable agriculture commodities. This is possible only through an integrated value chain.

3. Understanding Supply chain

3.1 Supply Chain

The supply chain is an innovative management practice which insists on cooperative relationship between different players in the chain. Networking of farmers with suppliers of inputs and the processors is essential. It is nothing but a group organization which is connected to each other by flow of Products, Services, Finance and Information.

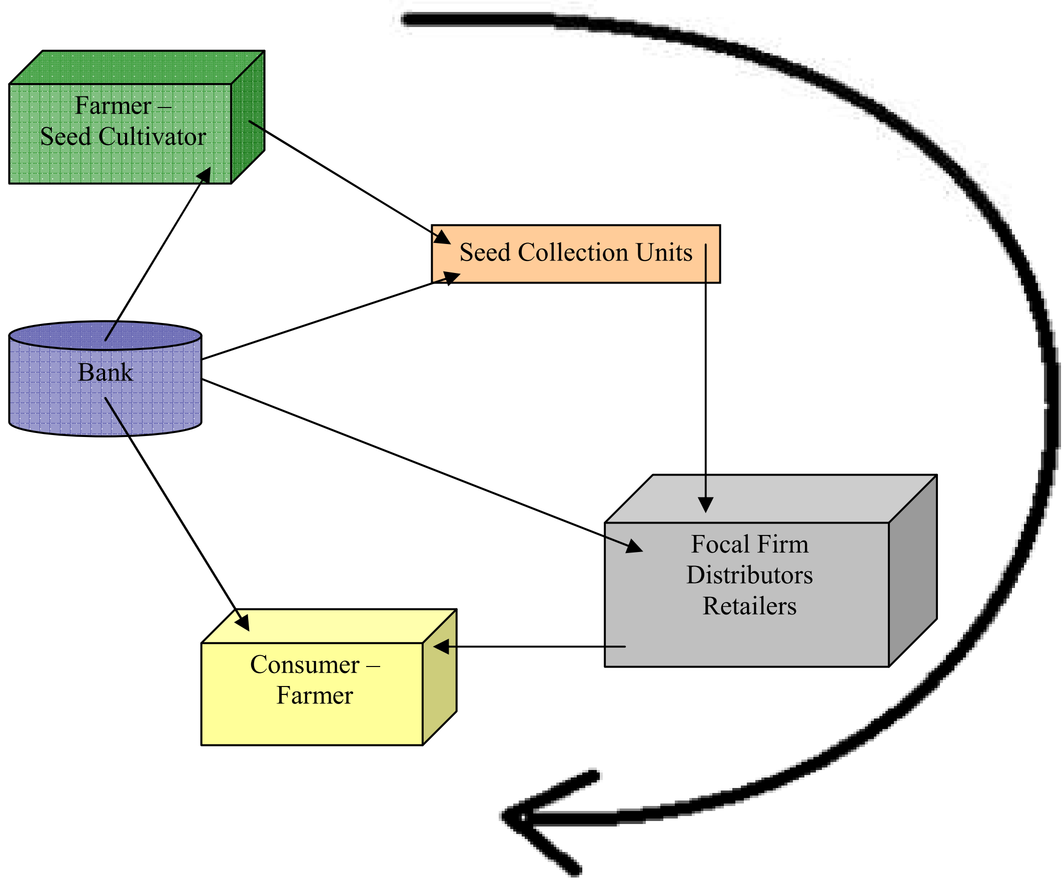
Dairy or milk production is a simple and prominent example of a commodity supply chain in our day to day life.

Supplier	→	**Focal Firm**	→	**Customer**
Ex: [Milk Producer]		[Milk Chilling Plant]		[Consumer]

The milk producing farmer requires different inputs besides cattle such as fodder, concentrates, medicines, veterinary health care, artificial insemination facilities, etc. The milk chilling plant requires milk at a particular time and of specific quantity and quality. The processing (focal) firm also requires finance to make different latest products to satisfy consumers' needs. The forward linkages in the milk production industry also give tremendous opportunities like packing units, milk vendors, retail outlets, distributors, marketing network etc.

Another practical example is of a seed processing – chain:

- Farmer – Seed cultivator
- Seed collection unit
- Focal firm (Seed processing industry)
- Distributors
- Retailers
- Consumer – farmer



3.2 Benefits of Integrated Supply Chain

The benefits of an integrated supply chain are:

i) Gives feedback to the farmer "to grow what sells."

ii) Better price discovery.

iii) Availability of best farming practices for ensuring good yield and quality.

iv) Better post harvest technologies to arrest deterioration.

v) Higher price due to sorting, grading etc.

vi) Partial disintermediation by eliminating middlemen.

vii) Extended shelf life of commodity due to processing / packaging etc.

viii) It helps Indian farmers who lack market orientation.

ix) It gives opportunity to have Industry – farmer Linkage.

4. Value Chain

Now, comes the concept of **'Value Chain'** A value chain is a sequence of activities that a product passes through, with ***value added in each stage*** - from design, to the transforming of inputs, to the final market. These activities are carried out by a series of actors, who set rules and relate to each other in different ways, depending on the value chain. In chains dominated by the increasing concentration and clout of retailers, value is increasingly derived by product differentiation and innovation that reduces cost and enhances the importance of reliable supply. Specialty coffee would be such a value chain, and producers who operate in this chain tend to have a captive relationship with the retailers in exchange for their higher prices. Chains that move commodities, on the other hand, with numerous buyers and sellers, tend to have more casual and price-based relationships. (Robert Fries, Banu Akin, December 2004).

4.1 Developing the Fresh Produce Value Chain

Area	***Present Scenario***	***Moving towards Future Scenario***
Production	❖ Low yields ❖ Production scattered over many small farms ❖ Outdated harvesting technologies ❖ Inadequate information about prices, trends and customer needs	✷ Significantly higher yields ✷ Use of modern technology ✷ Better linkages with the market, more awareness about prices, trends and customer needs
Procurement / Transportation	❖ Traditional, agent driven procurement system ❖ Extremely poor transportation infrastructure ❖ Very limited cold storage facilities ❖ High degree of wastage	✷ Improved post harvest technologies available to most farmers ✷ Efficient procurement system with few middle man ✷ Reduced wastage due to better road / rail and refrigeration infrastructure
Marketing / Distribution	❖ Produce is inconsistent in quality ❖ Outdated, inadequate distribution infrastructure ❖ Limited organized fresh produce ❖ High degree of wastage	✷ Widespread organized fresh produce retailing, demanding high quality produce ✷ Upgraded distribution ✷ Export facilitated through provisions of adequate cold-storage / pre-cooling infrastructure at ports / airports

4.2 Value Chain Analysis

Value chain analysis helps us to identify key bottlenecks to economic growth, finds financial service gaps in terms of these key bottlenecks, and identifies and incorporates key actors in relevant value chains (such as those with the potential both for high growth and small enterprise participation). This tool can be useful in identifying financial services for which there is significant economic demand and interventions that can expand existing supply chain in efficient and sustainable ways. An analysis conducted by *Kula and Farmer* in 2004 (for USAID) included the following four steps:-

- A cluster mapping of the region, starting with the key players in the identified commodity, and then layering on those entities providing services to the value chain – such as commercial agents, transporters, service providers, machinery repair businesses, insurance companies, and financial institutions.
- An inventory of financial service providers – banks, finance, companies, NGOs, agribusinesses in the region, and the range and quantity of financial services they are currently providing; also the mutual finances / credit facilities provided among value chain partners.
- Interviews of key stakeholders identified in the mapping and inventory exercises, focusing on three critical concerns:-
  - ✓ the opportunities for and constraints to increased growth and competitiveness of the agribusiness sector in the region,
  - ✓ the opportunities for and constraints to increased small holder participation in this growth, their benefit from it, and
  - ✓ the role for improved financial services in contributing to this growth.
- Identification of the *critical constraints* to growth and small holder participation, and of *alternative interventions* that the mission could consider in order to address them.

As such, a banker has to work out the opportunities to finance different players in the chain covering various components. The Branches should consider the whole range of activities in a chain that would establish backward linkage i.e. networking with input suppliers and forward linkages i.e. covering processors who buy these products and marketers.

In a quote by Dale Adams cited in the IFAD study of out grower and contract farming arrangements in East Africa: 'Adams et al (1992) summarizes the views: 'I have yet to find a merchant who would not prefer cash transactions over those involving credit. This suggests to me that most merchants view lending as a necessary nuisance rather than as a way to sweat additional profits out of their clients.' "Should a financial institution provide that service efficiently and reliably, it follows that many merchants and agribusinesses would gladly relinquish it."

5. Market Reform

There are fundamental changes that are occurring in the rural economy e.g. deregulation and liberalization, amendments to APMC Act, investments in AEZ, rural infrastructures, Providing Urban amenities in Rural Areas (PURA), etc. Corporates are coming up with their business models eg. ITC, Godrej, Suguna Poultry, Pepsi Co. Cargills, etc. They are linking products (farmers) to distributors / consumers. Some have gone in for full backward integration and augmenting supplies, while they themselves are in marketing business. Some are ensuring raw material availability at optimum price by setting up modern procurement facilities across rural market.

Till recently, Bankers were financing separately or in isolation to the suppliers, farmers, contract farming firms, distributors, transporters, etc. Most of the bank credit was limited to production and harvesting. Financing the whole chain is a paradigm shift called for in bankers' approach. The increased participation of private sector in agri - marketing and elimination of middle men would open up a host of opportunities for the banking sector from production to organized retailing.

In view of the above, promotion of value chain has been identified as one of the core initiatives of the Bank in Agri-business. This will help in:-

i) Financing the whole chain that can cover large quantum at lower cost.
ii) All commercial activities in the chain getting finance.
iii) Loan recovery efforts.
iv) Giving impetus to our agri-exposure.

6. Future Ahead

Let's consider some of the key issues and what they mean for the future.

6.1 Expect and anticipate change and change drivers

Some of these change-drivers for agribusiness are:

- ✓ Trade Liberalization.
- ✓ Global sourcing of products.
- ✓ Lower transportation costs of major consolidators.
- ✓ Rapidly changing market trends in high income countries.
- ✓ Requirement of preserved identity and trace ability.
- ✓ Food Safety.
- ✓ Increasing domination of supermarkets and their chain procurement.
- ✓ Changing lifestyles and food habits.
- ✓ Choices/tastes are the driving factors for value addition in agricultural supply chain.
- ✓ The choices are driving the pattern of agriculture rather than the other way.

6.2 Lessons from experiences

International experiences in Value Chain financing bring out the following lessons to be learnt:

- ➢ Awareness creation among farmers on opportunities available for them is critical for success available for them.

- Services / products must be customized to meet the specific needs of different customers.
- Different stakeholders in the value chain must work together for the mutual benefit of all stakeholders.
- The strength of the entire value chain depends on the performance of every single partner in the value chain.
- Common Banker can be a very effective cohesive force in the entire value chain.
- The competitiveness of the final product corresponds to the capacities of the weakest link in the value chain.
- Innovation holds the key to solving the problems facing small scale products. Stakeholders must be willing to think and work outside the "box"
- Flexibility is important in designing financial products and services in order to give customers a choice.

Thus, there is a need for **three-pronged strategy** to be at top in value chain financing.

6.3 The Three-Pronged Strategy

I. Know the market

As a banker, we should not only finance parts of a value chain, but rather be involved from top to bottom. In that way we could really know the market from "inside out" and the weakest links could easily be exposed and addressed accordingly. Also, transaction costs could be reduced through the integration of knowledge and flow. A look at the leaders in the food industry brings out that they often have dedicated food and agribusiness research analysts who continuously accumulate knowledge in their major sectors and inform and advise clients on all relevant issues through-out the value chain. For small farmers, they may also need a catalyst and may require an intermediary to facilitate this market knowledge and linkage, but the principle holds – *'know the market'*.

A suggestion:

As our Technical Officer (Farm Sector) strength is going up, we may think of ensuring a dedicated Officer in each Circle and identify some specific commodities (if not one for one commodity). He /she will collect all the relevant market information and pass it on to the branches / clients for increase in agri-business growth by way of value chain.

II. Financing along the Value Chain

Risk, return and repayment carry the same importance for value chain finance as with any conventional finance. For finance within the chain, credit risk is actually seen as a subset of the overall value chain business risk. The return, or profitability, is similar and often is embedded into the process in such a way as to not even be explicit. Repayment risk is also often not simply a function of a client going to the bank and repaying his/her loan but is payment through delivery of the product or payment when the processor or exporter delivers. If there is a "seamless" integration in the value chain system, this risk is minimized and the costs reduced.

Risk mitigation strategies and tools:

Often, we hear about e-Choupal and other mechanisms through which even the very poor are able to mitigate risk by proper systems and capacity building. E-Choupal services now reach millions of farmers in India growing a range of crops through more than 5,000 internet kiosks. If these farmers can hedge their price risks and also reduce their costs of financing, think of the potential when this type of platform spreads around India through our upcoming Alternative Channels like BC/BF, Customer Service Points etc also exist where this type of system can be introduced. If it spreads as quickly as cell phones, its impact could be immense.

For example, the re-designation of MROs as Officers-Marketing and Recovery (Rural) and expansion of their role to cover all segments will go a long way in mobilizing proposals for financing across the segments within the extended value chain as against the earlier piece-meal focus.

III. Strategic partnerships

Value chain finance, like value chain systems, is all about strategic partnerships which link together the essential products and services. These are not just up and down the chain but in every direction. Strategic alliances can improve competitiveness in a win-win situation.

Some suggestions:

i. There is a critical need for establishing a standing forum at Circle / Module level to coordinate between different business groups viz., CAG, MCG, RBG and NBG to have better synergy for the Bank as a whole. This is very much required as various stakeholders across the value chain are being serviced by different business groups and it is essential to have better information sharing across the groups to ensure financing the entire chain.

ii. A similar standing forum for coordination can be attempted at State level with our Associate Banks as well in the respective Circles.

Both such standing forums may be headed by Circle CGMs, to ensure effective flow of information leading to culminate in continuous and expanding flow of business as well as feedback from the customers / functionaries. This will also help in risk mitigation and establishing a lasting loyalty of customers with the Bank.

6.4 Steps for conducting a Value Chain Study

A detailed step-by-step guide to take up the value chain study is as under:

A. Collection of Data

i) Area and production Taluka-wise.

ii) Potential clusters & Surplus.

iii) Branches in potential clusters.

iv) List of progressive farmers in potential clusters.

v) Cost of cultivation and Scale of Finance.

vi) Innovative methods.

vii) Major inputs and its suppliers.

viii) Flow of farm produce & Procurement structure.

ix) Post harvest technologies followed vis-à-vis to be introduced.

x) Processing facilities.

xi) Marketing.

xii) Export.

xiii) Research institutes and agencies.

B. Scope for Finance

i) Crop production

ii) Crop Procurement

iii) Crop Post harvest

iv) Crop Processing

v) Crop Marketing

vi) Innovative Finance

7. Abbreviations

FAO: Food and Agriculture Organization

UNCTAD: United Nations Conference on Trade and Development, Estd: 1964.

CAG: Corporate Accounts Group

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