AMBO UNIVERSITY, WALISO CAMPUS

SCHOOL OF BUSINESS AND ECONOMICS

VALUE CHAIN ANALYSIS AND DEVELOPMENT

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1.INTRODUCTION

1.1. Basic concepts of Value Chain

Many use the terms "value chain" and "supply chain" interchangeably; however, we differentiate these two terms.

Supply chain: the physical flow of goods that are required for raw materials to be transformed into finished products. Supply chain management is about making the chain as efficient as possible.



Figure 1. supply chain

A value chain refers to: an entire system of production, processing and marketing from inception to the finished product. It is a full range of activities that are required to bring a product (service) from conception through the different phases of production to delivery to final consumers and disposal after use. It consists of a series of chain actors, linked together by flows of products, finance, information and services. A value chain is a group of companies working together to satisfy market demands.





Figure 2. Basic value chain map

Table 1. Supply chain vs value chain

Supply chain (mainstream SC, conventional SC)	Value chain (value-based SC)	
Mainly product oriented	Mainly consumer oriented. Take in to account consumer interest.	
Competitive and adversarial. No or less cooperation. Seek to buy as cheaply and sell as expensively as possible.	Combine cooperation with competition to achieve advantages in the market place. Cooperation within the value chain, competition with other value chains.	
Business relationships are framed in win loss terms (pie sharing)	Business relationships are framed in win- win terms with in partners (pie growing)	
Benefits and profit are not evenly distributed across the supply chain. Processors and marketers usually receive disproportionately higher share	Welfare of all partners is taken in to consideration including appropriate profit margins and long-term business agreements.	
Farmers are often operating in restriction markets or under short term contract; bear much	Farmers are strategic partners with rights and responsibilities related to information,	

of the risk; and may be treated interchangeably (and exploitable) in put suppliers.	risk taking, governance and decision making	
Lack of trust among marketing channel members	High level of interdependence and trust	
Tactical and operational processes	Strategic interest in the performance and well-being of other partners	
Internally focused on the creation of physical good	view on organization from the customer's perspective-the integration of goods and services to create value.	

The definition of value chain can be interpreted in a narrow or broad sense:

In a narrow sense, a value chain includes the range of activities performed within a firm to produce a certain product. In a broad sense, value chain is concerned with a complex range of activities implemented by various actors (e.g. primary producers, processors, traders, consumers).

The key issues for successful value chain are good information flows and good communication across the chain and they are demand driven, not product driven. Value chain involves a chain of activities that are associated with adding value to a product through the production and distribution processes of each activity.

The underlying purpose of every organization is to provide value to its customer and stakeholders. Value is what makes something desirable. Value is the perception of the benefits associated with a good, service, or bundle of goods and services (i.e., the customer benefit package) in relation to what buyers are willing to pay for them.

-Value adding activities can include:

- ✓ -Bulking
- ✓ Cleaning
- ✓ Drying
- ✓ Sorting
- ✓ Processing

- ✓ Storage
- ✓ Packaging
- ✓ Labelling
- ✓ Branding

One of the simplest functional forms of value is: Value = Perceived benefits/Price (cost) to the customer. If the value ratio is high, the good or service is perceived favorably by customers, and the organization providing it is more likely to be successful.

To increase value, an organization must: (a) increase perceived benefits while holding price or cost constant, (b) increase perceived benefits while reducing price or cost, or (c) decrease price or cost while holding perceived benefits constant.

Generally, a value chain is a network of strategic alliances between independent companies that together manage the flow of goods and services along the entire value-added chain. Strategic implies that the partnership is entered into deliberately by groups of people who jointly undertake activities they could not undertake themselves. The result is "competitive intelligence," and win-win strategy whereby information that could not be accessed independently is gathered and shared. A firm's value chain is part of a larger system that includes the value chains of upstream suppliers and downstream channels and customers.

In order to understand value chain, begin by drawing a simple diagram that shows the key processes and inputs that contribute to the final product. In general, the value chain of most agribusinesses looks like the following.

Input supply ----> Agricultural production ----> first level handling ----> Processors ----> wholesalers/distributors ----> Retailers ----> consumers

You can now replace these generic boxes with more detail where appropriate. Once the discrete activities are defined, linkages between activities should be identified. A linkage exists if the performance or cost of one activity affects that of another. At each stage of the chain the value of the product goes up, because the product becomes more convenient for the consumer. Besides value, costs are added at each stage in the chain.

-A value chain is broader in scope than a supply chain, and encompasses all pre- and postproduction services to create and deliver the entire customer benefit package.





Pre- and Post service View of the Value Chain

The term value chain is initially coined by Michael Porter in 1985 Porter's value chain.A company's value chain consists of a linked set of value-creating activities performed internally. The value chain contains two types of activities Primary activities–where most of the value for customers is created. Support activities–facilitate performance of the primary activities.

Michael Porter introduced a generic value chain model that comprises a sequence of activities found to be common to a wide range of firms.

Compiled by: Ayantu. A.



Figure 4. Porter generic value chain model

Primary activities

The goal of primary activities is to create value that exceeds the cost of providing the product or service, thus generating a profit margin. They contribute to the physical creation of the product or service, its sale and transfer to the buyer, and its service after the sale.

- ✓ Inbound Logistics: Include the receiving, warehousing, and inventory control of input materials.
 - Location of distribution facilities
 - Warehouse layout and designs
- ✓ Operations: Are the value-creating activities that transform the inputs into the final product.
 - Associated with transforming inputs into the final product form
 - Efficient plant operations
 - Incorporation of appropriate process technology
 - Efficient plant layout and workflow design
- ✓ Outbound Logistics: The activities required to get the finished product to the customer, including warehousing, order fulfillment, etc.

- Associated with collecting, storing, and distributing the product or service to buyers
- Effective shipping processes to provide quick delivery and minimize damages
- Shipping of goods in large lot sizes to minimize transportation costs.
- ✓ Marketing and sales: Those activities associated with getting buyers to purchase the product, including channel selection, advertising, pricing, etc.
 - Associated with purchases of products and services by end users and the inducements used to get them to make purchases.
 - Innovative approaches to promotion and advertising.
 - Proper identification of customer segments and needs
- ✓ Service: Activities are those that maintain and enhance the product's value including customer support, repair services, etc.
 - \checkmark Associated with providing service to enhance or maintain the value of the product
 - Quick response to customer needs and emergencies
 - Quality of service personnel and ongoing training

✓ Support activities

- Support activities often viewed as "overhead", but some firms successfully have used them to develop a competitive advantage, for example, to develop a cost advantage through innovative management of information systems.
- They are activities of the value chain that either add value by themselves or add value through important relationships with both primary activities and other support activities.
- Procurement: The function of purchasing the raw materials and other inputs used in the value-creating activities.
 - Procurement of raw material inputs
 - Development of collaborative "win-win" relationships with suppliers

- Analysis and selection of alternate sources of inputs to minimize dependence on one supplier
- ✓ Technology Development: Includes research and development, process automation, and other technology development used to support the value-chain activities.
 - Related to a wide range of activities and those embodied in processes and equipment and the product itself
 - Effective R&D activities for process and product initiatives
 - Positive collaborative relationships between R&D and other departments
 - Excellent professional qualifications of personnel
- ✓ HRM: The activities associated with recruiting, development, and compensation of employees.
 - Effective recruiting, development, and retention mechanisms for employees
 - Quality relations with trade unions
 - Reward and incentive programs to motivate all employees
- ✓ Firm Infrastructure: Includes activities such as finance, legal, quality management, etc.
 - Typically supports the entire value chain and not individual activities
 - Effective planning systems
 - Excellent relationships with diverse stakeholder groups
 - Effective information technology to integrate value-creating activities

1.2. Underlying Assumptions and Importance of Value Chain Approach

Concrete overarching goals of value chain include:

1. To achieve social and environmental goals as well as economic ones by engaging multiple stakeholders, including the end buyers, in the co-design of market agreements;

2. To develop sufficiently deep relationships among the key players so that the contracts or agreements can be adjusted as market conditions change without the weakest players sacrificing their interests;

3. To institutionalize what is learned and achieved into the core mission and strategies of participating organizations.

Beyond those overarching goals, healthy value chains are those which accomplish the following four conditions:

1. Increase market access for small scale producers;

2. Improve financial sustainability through buying relationships that better balance risk, responsibilities, and benefits among the chain actors;

3. Assist in guaranteeing purchaser access to consistent supplies of agricultural products that meet or exceed market standards; and

4. Be sufficiently flexible to enable both buyers and sellers to respond to changing markets and social and environmental conditions.

1.3. Principle of value chain approach in Agriculture

Sustainable food value chains must have ecological, social, and economic integrity.

- \checkmark These are also called the triple bottom line.
- \checkmark Agricultural value chain has ecological, social, and economic principles.
 - Ecological/Environmental principles: the essential ecological principles of sustainability include holism, diversity, and interdependence. Interdependent relationships among the diverse elements of healthy natural ecosystems make the ecological wholes something more than the sum of their parts.

Eg. Pollution impact, levels of flows in rivers, high conservation value, ...

✓ Social principles: the essential social principles of sustainability include trust, kindness, and courage. People in sustainable relationships must have the courage to trust and to care about others in a world where such things are often considered idealistic and naïve.

Eg. Opportunities for smallholders, women, unemployed, excluded groups,

✓ Economic principles: the essential economic principles of sustainability include value, efficiency, and sovereignty. Sustainable economic enterprises must produce things of economic value, efficiently. They must make their own decisions and accept responsibility for their actions if they are to maintain economic viability.

Eg. Percent of farmers benefiting, percent of farmers interested in joining the business, annual income generated, contribution to total volume, diversity of markets/clients, levels of support from government and other organizations, ...

Sustainable food value chains must be resistant, resilient, and redundant.

Sustainable food chains must be able to withstand unexpected shocks; they must be resistant. When their resistance breaks down, as after natural disasters and major economic setbacks, they must be able to bounce back; they must be resilient. In the most severe cases, they must have a fall-back strategy or "plan B"; they must have built-in redundancy.

1.4. Dimensions of Value Chain

The value chain concept has several **dimensions**. The first is its flow, also called its *input-output structure*. In this sense, a chain is a set of products and services linked together in a sequence of value-adding economic activities. At its simplest, we can think of a chain as having five main sections. A product is first designed, then raw materials are purchased and production takes place; the product is then distributed through wholesalers and retailers. At each stage, services such as transport or finance may be needed to keep the process going. As we will see when we start mapping real chains, some of these stages may be subdivided and others combined or compressed. Nevertheless, the five stages - design, inputs, production, wholesale, and retail - remain a handy device for understanding each step of the process.

A value chain has another, *less visible structure*. This is made up of the *flow of knowledge* and *expertise* necessary for the physical input-output structure to function. The flow of knowledge

generally parallels the material flows, but its intensity may differ. For example, the knowledge inputs at a product's design stage may be much greater than the material inputs; production, on the other hand, needs large quantities of materials, but in many cases requires only standard or routine knowledge.

The second dimension of a value chain has to do with its *geographic spread*. Some chains are truly global, with activities taking place in many countries on different continents. Others are more limited, involving only a few locations in different parts of the world. A UK retailer may, for example, contract with an Ethiopia fabric supplier to deliver cloth to a garment producer in Sri Lanka. The finished goods will then be shipped directly to the UK retailer. It is also possible to identify national, regional, or local value chains. These operate in the same way as the global chains, but their geographic 'reach' is more limited.

The third dimension of the value chain is the *control* that different actors can exert over the activities making up the chain. The actors in a chain directly control their own activities and are directly or indirectly controlled by other actors. A retailer, for example, controls the way he sells, but may be limited (indirectly controlled) by the range of goods available from wholesalers and producers. A home worker may find that almost every aspect of her work is controlled by a distant retailer who has specified the design, quantity, and quality of the garments she is producing. The pattern of direct and indirect control in a value chain is called its *governance*.

2.VALUE CHAIN ANALYSIS (VCA)

Value chain analysis is an attempt to assess or estimate how competitive a selected commodity or product is likely to be in a target market, even before it gets there. Value chain analysis describes the activities within and around an organization, and relates them to the analysis of the competitive strength of the organization. Therefore, it evaluates the value each particular activity adds to the organization's products or services. The value chain analyses is the base for value chain improvement, development or the set up of complete new value chains. This idea was built upon the insight that an organization is more than a random compilation of machinery, equipment, people and money. Only if these things are arranged into systems and systematic activities it will become possible to produce something for which customers are willing to pay a price. Porter argues that the ability to perform particular activities and to manage the linkages between these activities is a source of competitive advantage.

Value chain analysis plays a key role in understanding the need and scope for systemic competitiveness. The analysis and identification of core competences will lead the firm to outsource those functions where it has no distinctive competences.

Value chain analysis is useful for identifying constraints and opportunities for the provision of financial services. The process of value chain analysis helps to identify demand for services within value chains; recognizes that optimal levels of investment requirement of a range of services from a range of providers, including enabling institutions and value chain actors; and prioritizes needs for donor intervention in financial services and limits of Value Chain Finance are tied to the quality of cooperation between actors.

There are four major basic concepts in agricultural value chain analysis: Understanding the value chain and context; Development of interventions and innovations; Testing and implementation; and Evaluation and recommendations for improvement. Since value chains are composed of hierarchy of chain stages, the concept of stages of production is basic in value chain analysis. Closely related to the stages of production is the concept of vertical coordination.

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Value chain analysis facilitates an improved understanding of competitive challenges, helps in the identification of relationships and coordination mechanisms, and assists in understanding how chain actors deal with powers and who governs or influences the chain. Developing value chains is often about improving access to markets and ensuring a more efficient product flow while ensuring that all actors in that chain benefit out of it. Changing agricultural contexts, rural to urban migration, and resulting changes for rural employment, the need for pro-poor development, as well as a changing international scene (not least the increase in oil prices) all indicate the importance of value-chain analysis.

The issues of coordination are especially important in agricultural value chains, where coordination is affected by several factors that may influence product characteristics, especially quality. The value chain framework also enables us to think about development from a systems perspective.

Key issues that can be addressed through the value chain analysis

- Share of benefits and costs from value chains and market development.
- Distribution of added value along the chain.
- Market share of the different actors and corresponding size of sub-sector.
- Institutional and legal framework, such as regional production and processing zones, trade protocols, regulations on movement of people, agriculture marketing policies and financial institutions.
- Growth potentials (nodes with market potential).
- Infrastructure development.
- Potential for poverty reduction and rural income generation.
- Potential for sustained food supply at affordable competitive prices for consumers.

- Potential for maximization of returns on capital investment at different levels of the value chain strategy.
- Potential for strengthening sector and regional complementarities and interdependence through implementation of horizontal and vertical integration approaches in the commodity production value chains strategy.

2.1. Steps in Value Chain Analysis

As noted above value chain analysis is a useful tool for working out how you can create the greatest possible value for your customers. In business, we are paid to take raw inputs, and to add value to them by turning in to something of worth to other people.

Value chain analysis is a process that requires four interconnected actions: data collection and research, value chain mapping, analysis of opportunities and constraints, and vetting of findings with stakeholders and recommendations for future actions. These four actions are not necessarily sequential and can be carried out simultaneously.

The value chain team collects data and information through secondary and primary sources by way of research and interviews. Mapping helps to organize the data, and highlights the market segments, participants/actors, their functions and linkages. The collected data is analyzed using the value chain framework to reveal constraints within the chain that prevent or limit the exploitation of end market opportunities. The resulting analysis of opportunities and constraints should be vetted with stakeholders through events such as workshops, focus groups or "reporting-out" days. The steps are explained below.

Step One: Data Collection

Good value chain analysis begins with good data collection, from the initial desk research to the targeted interviews. The value chain framework—that is, the structural and dynamic factors affecting the chain—provides an effective way to organize the data, prioritize opportunities and plan interventions.

The desk research consists of a rapid examination of readily available material. The aim is to familiarize the team with the industry, its market and the business environment in which it operates, as well as to identify sources for additional information. Information such as statistics on exports/imports, consumption reports, global trade figures, etc., can be obtained

through the Internet, phone calls and documents from trade, commerce and industry ministries, specialized industry journals, and professional and trade association newsletters. Once the desk research is conducted, an initial value chain map can be drafted for refinement during the primary research phase.

Interviews are conducted with 1) firms and individuals from all functional levels of the chain, and 2) individuals outside the value chain such as writers, journalists or economists. In addition to providing information about the movement of product and the distribution of benefits, the interviews should inform on value chain actors' current capacity to learn; how information is exchanged among participants; from where they learn about new production techniques, new markets and market trends; and the extent of trust that exists among actors. Interviews can help to identify where chain participants see opportunities for and constraints to upgrading. Missing or inadequate provision of services necessary to move the value chain to the next level of competitiveness can be identified locally, regionally or nationally.

In addition to individual interviews, focus group discussions are a useful way to explore concepts, generate ideas, determine differences in opinion between stakeholder groups and triangulate with other data collection methods. The group may consist of 7-10 people who perform the same or a similar function in the value chain. Guided discussion better captures the social interaction and spontaneous processes that inform decision making, which is often lost in structured interviews.

The qualitative data gathered by these methods will reveal dynamic factors of the value chain such as trends, incentives and relationships. To complement this, *quantitative* analysis of the chain is necessary to provide a picture of the current situation in terms of the distribution of value-added, profitability, productivity, production capacity and benchmarking against competitors. Analyzing these factors highlights inefficiencies and areas for reducing cost.

Step Two: Value Chain Mapping

Value chain mapping is the process of developing a visual depiction of the basic structure of the value chain. A value chain map illustrates the way the product flows from raw material to end markets and presents how the industry functions. It is a compressed visual diagram of the data collected at different stages of the value chain analysis and supports the narrative description of the chain.

Porter distinguished two important elements of modern value chain analysis: The various *activities* which were performed in particular links in the chain. Here he drew the distinction between different stages of the process of supply (inbound logistics, operations, outbound logistics, marketing and sales, and after sales service), the transformation of these inputs into outputs (production, logistics, quality and continuous improvement processes), and the support services the firm marshal to accomplish this task (strategic planning, human resource management, technology development and procurement).

The importance of separating out these various functions is that it draws attention away from an exclusive focus on physical transformation.

Porter distinguishes between primary activities and support activities. Primary activities are directly concerned with the creation or delivery of a product or service. They can be grouped into five main areas: inbound logistics, operations, outbound logistics, marketing and sales, and service. Each of these primary activities is linked to support activities which help to improve their effectiveness or efficiency. There are four main areas of support activities: procurement, technology development (including R&D), human resource management, and infrastructure (systems for planning, finance, quality, information management etc.).

Some thought about the linkages between activities: These linkages are crucial for corporate success. The linkages manifested through flows of information, goods and services, as well as systems and processes for adjusting activities. A certain commodity value chain can be mapped as:



Figure5: A comprehensive value chain map

The purpose of a visual tool in the analysis process is to develop a shared understanding among value chain stakeholders of the current situation of the industry. The mapping exercise provides an opportunity for multi-stakeholder discussions to reveal opportunities and bottlenecks to be addressed in subsequent stages of the chain development. Maps are also used to identify information gaps that require further research.

Step Three: Analysis of opportunities and constraints using the value chain framework

Step three uses the value chain framework as a lens through which the gathered data is analyzed. The framework is a useful tool to identify systemic chain-level issues rather than focus on firm-level problems. While interviews give the value chain team the chance to gather information from individual firms, the value chain framework helps to organize this information in such a way that the analysis moves from a firm-level to a chain-level perspective. If the chain cannot be competitive, the success of individual firms is compromised. Therefore, taking a systemic approach is key to sustaining the competitiveness of the chain and the micro and small enterprises (MSEs) operating within it.

The factors affecting performance of the chain are further analyzed to characterize opportunities and constraints to competitiveness. These factors are classified under structure and dynamic components. The structure of the value chain influences the dynamics of firm behavior and these dynamics influence how well the value chain performs in terms of two critical outcomes: value chain competitiveness and MSE benefits.

Structure

The structure of a value chain includes all the firms in the chain and can be characterized in terms of five elements:

- 1. End market opportunities at the local, national, regional and global levels—the framework prioritizes this element because demand in end markets defines the characteristics of a successful product or service.
- 2. Business and enabling environment at the local, national and international levels—this includes laws, regulations, policies, international trade agreements and public infrastructure (roads, electricity, etc.) that enable the product or service to move through the value chain.

- 3. Vertical linkages between firms at different levels of the value chain—these are critical for moving a product or service to the end market and for transferring benefits, learning and embedded services between firms up and down the chain.
- 4. Horizontal linkages between firms at the same level of the value chain—these can reduce transaction costs, enable economies of scale, increase bargaining power, and facilitate the creation of industry standards and marketing campaigns. E.g. cooperatives.
- Supporting markets—these include financial services, cross-cutting services (e.g., business consulting, legal advice and telecommunications) and sector-specific services (e.g., irrigation equipment, design services for handicrafts).

Dynamics

The participants in a value chain create the dynamic elements through the choices they make in response to the value chain structure. These dynamic elements include:

- 1. Upgrading—increasing competitiveness at the firm level through product development and improvements in production and marketing techniques or processes
- 2. Inter-firm cooperation—the extent to which firms work together to achieve increased industry competitiveness
- Transfer of information and learning between firms—this is key to competitiveness since upgrading is dependent on knowledge of what the market requires and the potential returns on investments in upgrading.
- 4. Power exercised by firms in their relationships with each other. This shapes the incentives that drive behavior and determines which firms benefit from participation in an industry and by how much

Each plays a role in influencing value chain competitiveness. Using a <u>table</u> format, these factors of the value chain framework can be evaluated in terms of offering opportunities for upgrading and the constraints to taking advantage of these opportunities.



Figure6: Value chain framework

Step Four: Vetting findings of chain analysis through stakeholder workshops

Value chain analysis helps develop a private-sector vision to reflect stakeholders' interest in improving the efficiency and competitiveness of the chain. The fourth step, vetting findings, uses value chain analysis through a structured event (or series of events) like a workshop or reporting-out day to facilitate discussion with and among selected participants.

The objective of these events is to bring participants together who are responsible for critical market functions, service provision, and the legal, regulatory and policy environment. The goal is to have these participants who have an incentive to drive investments in upgrading to develop and assist in implementing a private sector-led competitiveness strategy. To develop this strategy, the stakeholders will need to prioritize the opportunities and constraints identified during the value chain analysis. With an open format, such structured events foster buy-in to the analysis process.

Participants are selected based on the role they play in the value chain, or their responsibility for critical market functions. There should also be MSE, medium and larger firm and association representatives who, during the interview phase, exhibited an understanding of the

issues related to the value chain (especially the opportunities), a strong interest in the types of questions posed during the interview, and leadership skills among peers or the community.

Vetting events can take on several forms from simple one day *reporting-out* sessions to more structured workshops that stretch to two or three days. The events are planned to reinforce the importance of knowing and understanding the end market. In presenting the findings of the value chain analysis, workshop leaders should stress that to remain competitive, stakeholders and other participants must continuously learn what end markets demand in terms of product specifications, quality, and other requirements.

It can be powerful to have a series of buyers present at the workshop. Where not possible, a phone call or pre-recorded video interview can be an effective means for stakeholders to see and hear directly from the buyer.

The event should include facilitated discussions, review and adjustments of value chain map and a review of the analysis table. For this exercise, it is recommended that the completed table be projected on a screen, and additions and modifications made during discussions inserted with the computer projecting the table. This assures a participatory process and onthe-spot adjustment witnessed by attending participants. If changes are made, the updated table can be immediately printed and distributed to participants before they leave.

In environments characterized by a number of donor partners working with the same group of firms, burn-out and skepticism particularly among the most important change drivers is likely. In some instances, the firms most important to driving change may not attend a full-day workshop even though they may be highly committed to the upgrading process and strategy for making the industry more competitive. If time allows, the analysis team can meet with these firms in advance of the workshop to convince them of the value of the competitive planning process. If this is not possible, the analysis team should meet with these firms soon after the workshop to vet findings and secure buy-in or commitment to the industry competitiveness planning process.

In most industries, it is rather unusual that a single company performs all activities from product design, production of components, and final assembly to delivery to the final user by itself. Most often, organizations are elements of a value system or supply chain. Hence, value chain analysis should cover the whole value system in which the organization operates.

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Within the whole value system, there is only a certain value of profit margin available. This is the difference of the final price the customer pays and the sum of all costs incurred with the production and delivery of the product/service (e.g. raw material, energy etc.). It depends on the structure of the value system, how this margin spreads across the suppliers, producers, distributors, customers, and other elements of the value system. Each member of the system will use its market position and negotiating power to get a higher proportion of this margin. Nevertheless, members of a value system can cooperate to improve their efficiency and to reduce their costs in order to achieve a higher total margin to the benefit of all of them (e.g. by reducing stocks in a Just-In-Time system). For instance, hierarchy firms are vertically integrated, so that they can directly control all or most of the activities of the chain

Some value chains can best be described as balanced networks. Firms form networks and in a balanced network the power relations among them are fairly equal, no one firm or group of firms dominates the network. In balanced networks supplier and buyer jointly define the product and combine complementary competencies. An example might be collaboration between producers of 'eco-friendly' knitted fabric and garment manufacturers who make this fabric into fashion garments. Since both are involved in high value-added production, they can work together more or less as equals.

Other value chains are governed by lead firms. We call these directed networks. The lead firms do not merely buy goods in the market. Rather they specify what is to be produced by whom, and they monitor the performance of the producing firms. In some cases, the networks are directed, or "driven", by large producers such as transnational corporations or other large integrated industrial enterprises. The automobile industry is a good example of a producer driven value chain. The large automobile companies dominate the chain by setting the specifications that must be followed by firms joining their networks of component suppliers.

Other chains are driven by the buyers of the products. In clothing and footwear, many leading brand-name companies do no production themselves. Instead, they concentrate on design and marketing. Their strength as buyers enables them to dominate certain value chains. They determine what fabrics will be used, what styles will be produced, and in what colors.

Finally, some chains are characterized by vertically integrated firms. In these cases, firms, acting through their own decision-making hierarchy, can directly control chain activities.

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2.2. Horizontal and vertical linkage

Trust and linkages are inextricably intertwined within a value chain. Organizations without linkages have little reason to trust each other. Again, especially in the absence of an effective mechanism of enforcement, linkages without trust are invariably weak. Actors in value chain link with one another because they purportedly obtain benefit from those linkages.

Inter-organizational trust: It is pivotal to successful value chains. Value chains emphasize high levels of interorganizational trust. will still be in place even if key people leave because it is based on organizational procedures—it is process-based trust.

Inter-organizational trust is built on fairness, stability, predictability of agreements among strategic partners and confidence that partners will not exploit the other's vulnerabilities.

Linkages can be classified into vertical and horizontal.

The vertical linkages are the relationship between actors along the chain. E.g. interaction of farmers with other actors like sales contract with processing enterprises, production contract with foreign companies, sales through cooperatives, and the likes.

Horizontal linkages on the other hand are linkages between actors at the same level of the value chain. E.g. farmers working together with other farmers; companies in the same sector liaising with each other on a regular basis; etc.

2.3. Gender Issues in Value Chain Analysis

2.3.1. Concepts of gender mainstreaming

As defined by the United Nations, gender mainstreaming is:

The process of assessing the implications for women and men of any planned action, including legislation, policies or programs, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programs in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated.

2.3.2. Gender Sensitive, Gender Responsive and Gender Transformative

Understanding the difference between gender-sensitive, gender-responsive and gendertransformative is important because unless people and organizations are gender responsive, and ideally gender-transformative, there will be no change in the status of an outcomes for women and men.

A gender-sensitive person or organization is: Aware of and understands the differing needs, roles, responsibilities of women and men arising from their unequal social relations. Including an appreciation that these differences can result in discrepancies between how women and men participate in and benefit from development.

A gender-responsive person or organization is also aware of gender disparities and the causes and they take action to address gender inequalities (i.e. – they 'respond').

However, that action might or might not result in effective permanent change to the causes of gender equality.

A gender-transformative person or organization seeks to understand and address the causes of gender-inequality, and in doing so takes effective strategic action to transform the unequal power relations between men and women resulting in improved status of women and gender equality.

There is a tendency for people to express their awareness of gender equality issues but not to act that is they are gender-sensitive, but do not do anything about gender inequalities. On the continuum of gender-awareness, we need to be moving and encouraging others to move from:

GENDER-BLIND

GENDER-SENSITIVE (AWARE)

GENDER-RESPONSIVE

GENDER-TRANSFORMATIVE

2.3.3. Women's empowerment

A 'bottom-up' process of transforming gender power relations, through individuals or groups developing awareness of women's subordination and building their capacity to challenge it. The term 'empowerment' is now widely used in development agency policy and program documents, in general, but also specifically in relation to women. However, the concept is highly political, and its meaning contested.

Thus, there are dangers in the uncritical overuse of the term in agency rhetoric, particularly where it becomes associated with specific activities, or used in simplistic ways.

Central to the concept of women's empowerment is an understanding of power itself. Women's empowerment does not imply women taking over control previously held by men, but rather the need to transform the nature of power relations. Power may be understood as 'power within,' or self-confidence, 'power with', or the capacity to organize with others towards a common purpose and the 'power to' effect change and take decisions, rather than 'power over' others.

Empowerment is sometimes described as being about the ability to make choices, but it must also involve being able to shape what choices are on offer. What is seen as empowering in one context may not be in another.

Empowerment is essentially a bottom-up process rather than something that can be formulated as a top-down strategy. This means that development agencies cannot claim to 'empower women', nor can empowerment be defined in terms of specific activities or end results. This is because it involves a process whereby women, individually and collectively, freely analyze, develop and voice their needs and interests, without them being pre-defined, or imposed from above. Planners working towards an empowerment approach must therefore develop ways of enabling women themselves to critically assess their own situation and shape a transformation in society. The ultimate goal of women's empowerment is for women themselves to be the active agents of change in transforming gender relations.

Whilst empowerment cannot be 'done to' women, appropriate external support can be important to foster and support the process of empowerment. A facilitative rather than directive role is needed, such as funding women's organizations that work locally to address the causes of gender subordination and promoting dialogue between such organizations and those in positions of power.

Recently, interest has grown among development professionals in approaches to measuring women's empowerment, particularly in relation to microcredit program. A number of 'indicators of empowerment' have been developed in different contexts. Again, caution must be exercised in assuming that empowerment can be externally defined and objectively assessed, or that such indicators can be easily transferred.

2.3.4. Gender equality and equity

The term 'gender equity' is often used interchangeably with 'gender equality'. Here, a distinction is drawn between these two concepts, reflecting divergent understandings of gender differences and of the appropriate strategies to address these. Gender equality denotes women having the same opportunities in life as men, including the ability to participate in the public sphere.

This expresses a liberal feminist idea that removing discrimination in opportunities for women allows them to achieve equal status to men. In effect, progress in women's status is measured against a male norm. Equal opportunities policies and legislation tackle the problem through measures to increase women's participation in public life.

For example, in Chile, the National Service for Women (SERNAM) developed an Equal Opportunities Plan for Chilean Women 1994-1999. This focused on equitable participation in education, the labour market, health services, and politics. Judicial reform is another key tool in the fight for equality, but lack of implementation and enforcement might limit its impact.

However, this focus on what is sometimes called formal equality, does not necessarily demand or ensure equality of outcomes.

It assumes that once the barriers to participation are removed, there is a level playing field. It also does not recognize that women's reality and experience may be different from men's.

Gender equity denotes the equivalence in life outcomes for women and men, recognizing their different needs and interests, and requiring a redistribution of power and resources. The goal of gender equity, sometimes called substantive equality, moves beyond equality of opportunity by requiring transformative change.

It recognizes that women and men have different needs, preferences, and interests and that equality of outcomes may necessitate different treatment of men and women.

An equity approach implies that all development policies and interventions need to be scrutinized for their impact on gender relations. It necessitates a rethinking of policies and programs to take account of men's and women's different realities and interests. So, for example, it implies rethinking existing legislation on employment, as well as development programs, to take account of women's reproductive work and their concentration in unprotected, casual work in informal and home-based enterprises.

It is worth examining the content of policies, not just the language, before deciding whether equity or an equality approach is being followed. Gender equity goals are seen as being more political than gender equality goals, and are hence are generally less accepted in mainstream development agencies.

3.VALUE CHAIN DEVELOPMENT: CHALLENGES, OPPORTUNITIES AND INTERVENTION STRATEGIES

Value chain is made of **interlinked value-adding activities** that convert inputs into outputs which, in turn, add to the bottom line and help create competitive advantage. Which means businesses within the value chain are engaged in handling and adding direct value or consuming the product and also the service network indirectly involved in the production (for example quality control, ICT, financial partners, banks, insurance, and training and research).

3.1. Approaches to Identify Challenges and Opportunities in the Value Chain

3.1.1. Identification of Constraints and Opportunities

Effectiveness of value chain in ensuring value for money, minimizing operational cost and ultimately enhancing competitiveness, depends to a large extent on the elimination/overcoming of constraints and seizing opportunities associated with the value chain (and its components).

Constraints may be defined broadly as any factor that prevents a unit or system from being effective or achieving its objectives. Constraints may differ from one component of the value chain to the other; it may also differ from one linkage point in the chain to another. But generally, they may come in the form of lack of timely information, poorly developed human resource, mistrust, inadequate material resource, inadequate technology and low commitment.

Opportunities, on the other hand, may be defined as avenues/openings within a unit or system which have the potential to enable the unit/system achieve its objectives or enhance its effectiveness, if utilized.

A combination of the main constraints and opportunities provides the leverage points for the value chain. Improving the effectiveness of a value chain requires some intervention to address the leverage point i.e. overcoming constraints and utilizing opportunities. The subsection focuses on how to identify constraints and opportunities embedded in a value chain, as a foundation/basis for designing a realistic and realizable intervention strategy for chain improvement.

Participatory approaches for identifying constraints and opportunities

Design of an intervention strategy (to develop a value chain) is based on an assessment of constraints hampering and opportunities that would foster the development of the value chain. Identification and assessment of constraints and opportunities is therefore crucial to value chain development. Constraints and opportunities can be identified at every level of the value chain scope i.e. Meta, Micro, Meso, and Macro levels.

In identifying and assessing constraints and opportunities at each level, emphasis must be placed on the use of participatory approach which enables stakeholders to be involved in the process. Apart from ensuring that divergent views are taken into consideration in arriving at the constraints and opportunities, this approach also guarantees the commitment of all stakeholders for implementation. The participatory approach also prevents the 'hijacking' of the 'project' or process by the relatively more powerful stakeholders in the chain.

There are several tools and techniques that can be used to ensure active participation of all stakeholders during identification and assessment of constraints and opportunities. Prominent among these are focus group discussions, key informant interviews and semi-structured interviews. The identification and assessment of constraints and opportunities (using the participatory approach method) should be done both within and across the components of the value chain (linkages), using the relevant stakeholders.

Constraints and opportunities at various levels of operation in the value chain

The starting point for identification and assessment of constraints and opportunities in the value chain is at the micro level. This calls for a thorough knowledge and understanding of the functions and operators of the value chain. Constraints and opportunities assessment at this level naturally ropes in the meta, meso, and macro levels in a rather complex relationship that calls for thorough analysis. Irrespective of this challenge, the appropriate skills and experience must be applied to effectively link constraints and opportunities to the meta, micro, meso and macro levels. The identification of leverage points will involve all stakeholders (i.e. at the meta, micro, meso and macro levels). Some of the factors to be considered at the meta level are socio-cultural that influence business attitudes, trust and hence the effectiveness and efficiency of cooperation within the value chain system. The micro level will consider factors such as input provision, production, transportation, and consumption and at the meso level groups, associations, organization, NGO's, technical Agencies such as research and extension are involved. The macro group is made up of district

assemblies, national government and providers of utilities. Let us look at some possible constraints and opportunities that may be identified at each level.

Micro level

- Fragmented linkages between surplus and deficit areas as well as rural and urban areas
- Insufficient knowledge on marketing, access to markets and market research to identify potential markets etc
- Insufficient management and entrepreneurship skills and mind sets
- Inefficient production, trading and processing systems (including productivity, good practices and quality assurance)
- Weak value chain governance systems determining the coordination and efficiency of the information, product and payment flows between value chain operators

Meso Level

- Inefficient and inappropriate capacities of private and public services to address needs of value chain operators (service offer)
- Limited capacities and willingness of potential clients to access services and pay for services (demand for services)

Macro level

- Legislation (e.g. land tenure, standards)
- Economic infrastructure (e.g. road network, telecommunication, market places)
- Social infrastructure (e.g. education, health)
- Enforcement (e.g. phytosanitary control, contracts)
- Administrative procedures (e.g. business registration)
- Incentive schemes (e.g. tax holidays, free zones)



Figure 1: Starting Point for Strategy Development: The value Chain Map

3.2. Steps in Value Chain Development

Value chain building is a deliberate initiative to promote *potential* value chain development in a *sustainable* manner. It involves working for inclusion of *target groups*, improving *participation and benefits of the target group*, incorporating other *developmental concerns*. *Building a chain begins chain formation*. **Chain Formation** includes all activities and conditions necessary to design as well as implement collaborative relations between chain links/actors with the purpose of supporting a productive functioning of the chain efficiently.

3.2.1.Stages in building a value chain

Three stages in building a value chain have been identified. The following sections deal with the stages and how you might apply them to specific situation.

Stage 1: Identifying the opportunity

In this first stage, you will identify some opportunities for a value chain by mapping and evaluating the existing supply chain. It probably comes from some idea of available resources but may need to further define a clear project objective or focus. In this stage we learn how to gain the support of some members of the chain and perhaps identify someone who will

champion the value chain. As a next process to identify opportunities for value chain development, the following points need attention.

- 1. Map and evaluate the supply chain
- 2. Outline the opportunity by developing a project summary and evaluating the market
- 3. Assess resources, risks and capabilities of a value chain project.

1. Map and evaluate the Supply Chain

Mapping the existing supply chain is the first step in identifying opportunities. By mapping the major companies who are suppliers and customers, you will better understand how the product moves through the market channel and identify who you need to involve in the value chain project. Mapping and evaluating supply chain is important to create a buy-in for building chain and also partners can provide valuable perspectives on the strengths, limitations and opportunities for the chain.

Mapping current supply chain enables chain members to better understand how events are linked in the supply cycle and identify duplications, bottlenecks or gaps. Once we develop a better understanding of consumer needs and wants, value chain partners will be able to establish a competitive advantage by delivering exactly what the consumer and customer want.

After mapping the next step is to evaluate the Supply Chain. What are being done well? What we need to improve? This process can be helpful in determining where the greatest opportunities are for value chain development such as product quality, systems efficiencies or differentiated or specialized products.

2. Outlining the opportunity and evaluating the Market

Now that we have completed the evaluation stage, we need to determine the most important opportunity or problem to be addressed using a value chain approach. This stage requires being creative by considering all possibilities and opportunities at hand. Having a project summary will be helpful while talking to potential partners and in developing the pilot project plan. Remember that *opportunity will often emerge when people in a supply chain start to brainstorm*.

Evaluate the Market: If we are considering taking a new product to market or expanding into a new market, we need to do a market review. Developing new products and markets requires considerable work. In most cases, expert advice is critical.

3.Assess resources, risks and capabilities of a value chain project.

After having a good sense of the opportunities, it is time to prepare a summary of group's (chain actors) resources and capabilities that is accessible for a value chain pilot project. Then, the potential risks will be evaluated and used for choosing and talking to potential partners and developing the pilot project plan. Regarding risks, there is a need to ensure that risk factors that could interfere with the success of the project are identified. Then determine the likelihood of identified risks and at what stages they might occur. Identify any risks that are relevant at this early stage, and design some strategies to lessen them. For example, an early risk might be that the idea is shared with competitors. So there is a need that some groups develop a confidentiality agreement to protect their ideas.



Figure 8: Risk factors in outlining Opportunities

Stage 2: Developing a Pilot Project Plan

At this stage we look at developing a pilot project plan with clear goals, plans and measures. A pilot is a small, trial-size version of a commercial-scale value chain. It minimizes some risk by allowing stakeholders to commit themselves and work out any bugs while proceeding on a small scale. This is the stage where you identify suitable partners for the value chain, select a manager and achieve commitment from all partners perhaps in the form of a written agreement. Steps in developing the pilot plan are:

a. Identify value chain partners

You should now have a clear project goal and a list of resources needed. These resources will become list of criteria for searching and selection of additional value chain partners. We may

already have existing partners and resources that we want to include in this venture. Once this is fulfilled it is time to also look for other partners that will bring, to the chain, expertise and resources that are lacking. Some resources, such as contract work or rental equipment may be more cost-effective if obtained outside the chain.

Carefully selecting the right partners is the most important factor in establishing a successful value chain. The best alliance strategy or market opportunity may still not be successful without the right partners.

But how do we find the right partner? Knowing what you're looking for is a key. This underlies the importance of identifying your needs and what you have to offer to a value chain. The best fit between organizations involves interdependence where partners can achieve their goals, which in turn help you achieve yours.

When choosing partners, compatible business approaches are important. To partner in a value chain means to share and collaborate to reach a common goal. Once you bring partners into the value chain, they must be treated fairly, given a voice and respected for what they bring to the alliance. You may see the selection factors in the figure below.



Figure 9: Stakeholder selection factors

b. Initial Contact

Once we have short-listed the companies (stakeholders) that might fulfill the requirements, the initial contact with them should be tentative. This requires outlining the basic value chain idea, what the partners hope to achieve and how they think it will benefit them. While providing them with some information, we will also want to leave the options open, reserving

full commitment until know the potential partner known better. We have to be sure to withhold any sensitive information that might allow companies to become the competitor if they choose not to become an ally. It is probably best to delay detailed contracts until we've reached a solid verbal understanding with key decision-makers.

Once a successful alliance with other companies or farmers established, you can probably proceed with greater confidence to forge a stronger value chain. You will likely have a better understanding of the prospective partners' true capabilities and can build on the existing relationship.

c. Steering or Working Committee

Once potential partners have expressed an interest, it's time to pull all interested parties together. A steering committee, with representatives from each of the partner organizations, is an effective way to begin. In the initial planning stages, senior people who can make decisions on behalf of their organization to attend a meeting are to be invited. After bringing a steering committee together, the next step is to build strong relationships among members.

While it is important to have senior leaders on the steering committee, they may not have the time and expertise to actually manage the project. In these early discussions, include someone, or several people, who could potentially manage the project. Ideally, if resources allow, a dedicated project leader would be named. This could be a staff person or consultant who is hired as project manager. In situations where this isn't possible, groups may choose to hire expertise as required at specific stages in the project.

An outside facilitator is preferable. Someone within the chain could assume the role as long as he or she stays neutral and hears all points of view without disagreeing.

d. Build Relationships

Building a collaborative business relationship when relationships have traditionally been competitive takes effort and attention. While the business case may drive a value chain, personal relationships can make or break its long-term success. Even the most "bullet-proof" business case will not survive long-term interpersonal problems. Value chains need a foundation of cooperation, trust and mutual respect to thrive. As in other relationships, value chain relationships are built by both working together and getting to know each other in an informal setting. The most successful value chains allow opportunities for partners to interact

and get to know each other better through recreational and social activities outside of the dayto-day business schedule.

e. Manage Key Discussions

During value chain formation and pilot project implementation, there will be key discussions that require a collaborative attitude, excellent communication skills and possibly the help of a facilitator. These discussions will need general environment like:

- A positive attitude towards mutual continuous improvement among value chain partners
- Sharing of strategic and operations data
- Adapting the organizational systems to support the value chain alliance.

f. Develop a Pilot Project Plan

The first value chain project should be a pilot project; a pilot is a small, trial-size version of the full potential value chain. It allows stakeholders to commit themselves in stages by minimizing risk and allowing you to work out the bugs while proceeding on a small scale. Most value chains take a while to show benefits, and initially demand a lot of resources. If the project succeeds, you can take what you've learned and go full scale with more confidence.

To identify a suitable pilot project, begin by identifying one portion of your business that could be separated and operated differently as an independent test case. Build the pilot project around this small portion. Examples include a specific product line (e.g., a milled oat cereal, a specialty meat product, etc.) or one specific market, such as a small, high-end retail shop. It may also mean finding a new way to work with your partners. While a pilot project can take many forms, it should meet the following criteria.

- Demonstrate the potential of larger-scale collaboration
- Allow all parties to evaluate their involvement and decide whether to continue the arrangement
- Provide clear measures of success, based on quantified measurable objectives (e.g., percent increase/decrease, revenue, etc.)
- Have pre-determined check-in points and an end date.

Before detailing goals and objectives for your pilot project, you need to build understanding on the following points.

Build a Plan and Develop measures: - Once a suitable pilot project is identified, the next task is to build a plan. Building plan starts by setting goals, objectives, measures and action plans. Involving chain partners in developing these plans is necessary to building commitment and trust, as well as preventing misunderstandings down the road.

- Goal-identifies what you hope to achieve with the pilot project
- Objectives-specific, practical and easy to understand steps to achieve your goals
- Measures-indicators of reaching the goals
- Action plans-the "to-do" lists that partners take on in order to fulfill their commitments towards reaching the goal. Be sure to include timelines and who's responsible for completing each task.

Develop Measures: - It is important to determine performance measures in the planning stage of value chain development. When the measures are monitored and reported, the results of the measures can be used as an early warning sign that there may be a problem in the process and something may need to be changed or addressed. There are four main categories of measures: cost, quality, speed and volume. Each category may be applicable for your business; however, each measure requires data be collected and managed. The greater the number of different measures you use, the more time required to collect the data. When you are selecting a measure, make sure that you will be able to collect the required information and that the data you are collecting will actually tell you something about your progress towards your goals.

It is not enough to report on the measure; all parties involved need to understand what the expectations are for the project. This is also an opportunity to plan for improvement. For each quarter/timeframe defined by the group, you can improve the targets so that you are working in a continuous improvement cycle. Using clear, quantifiable measures before, during and after the pilot project allows the group to assess project progress and success.

Possible Measures

- Cost: profit margins, return on investment, reduced capital costs
- Speed: reduced time to market, decreased turn-around time
- Quality: improved quality of product/service, improved market image, customer satisfaction
- Volume: increased productivity, increased market share, sales into new markets

Once we arrive at clear goals, objectives and action plans, decide as a group how and when the objectives will be reviewed. It's also a good idea to agree with your partners on what will happen if objectives are not met. While clear goals and objectives are necessary to get your pilot project off the ground, they are also useful when talking to value chain customers, suppliers, new partners and perhaps even the media.

Identify, Measure and Manage Risk: - In Stage 1 you identified some early risks and assigned strategies to deal with them. In collaboration with your partners, identify all of the risks that might affect the project. Next, assess the importance of each of these risks, and rank them so that the most important ones can be dealt with first. The final step is to develop appropriate risk management strategies and incorporate them into your plan. You may wish to use a formal risk assessment process. This approach helps you to estimate the likelihood of each risky event occurring, as well as the impact it would have on the business, should it occur. The next step is to brainstorm for appropriate risk responses, of which there are really only four: avoid, transfer, mitigate and accept. The overall effect is to simplify the complex process of risk management into several understandable and achievable components.

A few examples of risk management strategies that have been applied to value chain development include the following actions by value chain partners (the risk response category is in parentheses):

- Sharing information and problem solving in order to address emerging risks (mitigate, transfer)
- Implementing traceability or identity preservation to improve the ability to find the source of problems and implement improvements (mitigate)
- Involving additional partners in a potentially lucrative but risky new venture (transfer, mitigate)
- Agreeing to stay away from some certain volatile market sectors (avoid).

Collaborative Planning Sessions: - It's hard to plan a value chain in your spare time. Dayto-day pressures make it difficult to find the opportunity for meaningful dialogue between partners. Collaborative planning sessions are a critical step in value chain development. Planning sessions should last a day or two, and are conducted on neutral ground, preferably away from the workplace. Key decision makers from each value chain member must attend

(may be steering committee members). At the planning session, representatives reach consensus on critical issues and plans before the pilot project is fully underway.

The goals, objectives, measures and action plans mentioned previously are typically developed at a collaborative planning session. You'll also want to establish protocols for decision making, communication and resolving problems. Setting up regular meeting times ensures you don't meet only when there are problems to sort out.

Business Structures: - Now that you may be entering a value chain, does your business structure still fit? Do you need to grow, find outside money, add suppliers or hire management? Choose a business structure that fits your unique needs. Tax and liability separation issues can direct you to a corporation. Groups of people with a "democratic" viewpoint can direct you towards a cooperative or a partnership. Intense independence can be expressed through a corporation or a single proprietor.

The type of business structure you choose can be influenced by the following factors:

- The size of the value chain and the need to access larger markets.
- The motives and goals of the owners. The business structure needs to fit the philosophy of the owners and how they wish to share the risks and rewards.
- The ability to raise money. Finding money outside your own business is a major issue and each structure is unique in facilitating investment.
- The amount of tax you are willing to pay on the profits in the business.

In short, all participants in the value chain need to discuss the type of business structure that would best fit.

Written Agreements: - Full legal contracts should not be developed until you've reached agreement and can ensure that value chain partners are compatible with one another. This getting to know each other better more formally can be done on the basis of a letter of intent/memorandum of understanding (MOU) outlining broad goals and generally agreed upon working relationships between enterprises or groups. It is possible to proceed into a pilot project (where risks are manageable) with a completed MOU. However, as value chain partners proceed, working into a scaled-up value chain structure, specific requirements of a legal contract will start to emerge and the contract you sign will more accurately reflect

everyone's best interests. Delaying a contract allows you to build a trusting relationship before you start discussing things like risk and cancellation clauses.

Importance of Leaders: - In order to move forward on a plan, value chains rely on the support of high-level decision-makers. Employees look for signals from the top; if they see the leader dedicating resources and energy to the value chain, they'll follow suit. Leader support is a very important success factor. Equally important to successful implementation is the commitment of operational people. Include them in the planning process to develop a practical implementation plan and ensure their buy-in to the project.

Collectively, companies involved in a value chain may select an individual to act as chain manager to monitor progress and facilitate communication and collaboration. The manager should also be in touch with project champions (if they're not part of the steering committee), to share success stories, keep champions apprised of progress and to offer insights about maintaining support for the project.

Stage 3: Monitoring and Evaluating the Pilot Project

This is the stage where you will implement and monitor your pilot project. You will adapt and build in order to determine whether a full-scale value chain is a possibility.

Monitoring the Pilot Project

As you move along in the pilot project, make sure you schedule regular steering committee meetings to report on the status, or communicate the progress, of the project to date. At these meetings check for any challenges or problems with the pilot's progress, conflicts that may have arisen and any new opportunities. Define and plan your next steps to address these issues.

At a meeting with partners, try to answer the following questions.

- Are objectives being met?
- Have the objectives changed?
- Are all partners satisfied with progress?
- What needs to change to increase satisfaction or ensure continuing support?

Integrate Systems

Often there are multiple connections between value chain partners. As you operate in a value chain, opportunities to build and sustain the extended enterprise arise because of the multiple connections created between value chain partners. The closer and tighter these connections, the more you can consider:

- New roles
- Implementing new technologies
- Deploying new models of operation
- Cost reductions, delivery, time savings and quality improvements
- Risk management tools.

Working cooperatively, you can share data and decision-making to the point where transactions between value chain partners are seamless, almost as if they were within the same business. For example, inventory requirements can be anticipated and adjusted with little paperwork or time lag. Invoicing and payments can occur automatically. Through collaboration, bottlenecks and obstructions are removed, allowing the flow of goods and services to become more streamlined. Just-in-time and just-the-right-amount deliveries are much more likely to be achieved within a value chain with good communication.

Depending on value chain type and level considered, integrating and synchronizing systems involves both human communication and computer technology. This leads to the need for developing a system for sharing information among chain partners. This might be an integrated invoicing system, harvesting/processing protocols, inventory control, customer satisfaction, etc. Integrating value chain enterprises through synchronized systems is getting more economical, due to advances in computer technology. This makes the potential payoff even greater. The most effective value chains encourage participants to exchange ideas freely, trade best practices and experiment to continually find better ways to interact. Take the opportunity to benefit from an outsider's perspectives on how effective you really are. Always remember that there's a better way!

Adapt and Build

Value chains never remain static because they are based on continually shifting market opportunities, and consumer and customer demands. No matter how well a value chain is operating, there a need to stay focused on emerging opportunities and be prepared to seize

opportunities as they arise. An advantage of a value chain is that there are many more eyes on the horizon scouting for opportunities. As value chains mature and commitment builds, working relationships become closer and more collaborative. Individual companies focus more on their area of expertise, leaving other tasks to value chain partners who possess different skills and expertise. Being able to adapt, evolve rapidly and capitalize on opportunities are some factors that characterize successful value chains.

Once the value chain is underway, there's still plenty that can be done to enhance it. Schedule regular meetings with the steering committee, celebrate the achievement of milestones, colocate or exchange staff and, most importantly, work with your partners to introduce methods for continuous improvement. A few examples of where you might continue to make improvements are in the areas of logistics, inventory management, process improvements, customer service, and information sharing and product market development. Thriving value chains realize their potential through ongoing discussions with partners. Challenging each other and the value chain itself are healthy behaviors. It takes a concerted effort to ensure that lines of communication remain open and the chain remains vibrant. Plan a formal approach to ensure that dialogue is practical and relevant and keeps the value chain focused on continuous learning and change.

Evaluate the Pilot Project

Once the pilot project is completed, it has to be evaluated and decision has to be made whether the group wants to establish a more permanent value chain. This needs to complete a final review of the pilot project with chain partners. Then, identify the learning gained and discuss the next steps to establishing a more permanent value chain and relationship. In this ask these questions:

- What was accomplished?
- Can more be accomplished by continuing?
- Can we add to the objectives?
- Are there any new areas we can work on together–cost reduction, safety, quality, new products or new markets?
- What can we do together that can't be done independently?
- Are there any new opportunities?

Be sure to provide written copies of project results and all the associated records of its management for each partner. File and retain these results to provide support for future projects. Use what you learned in the pilot to transfer to other markets or new opportunities for yourself and the partners in your value chain. The pilot project experience will help you work better with these and new partners, and provide a greater chance for success in new endeavors.

Wrap Up

Whether decided to proceed with a value chain initiative or not, working more collaboratively with other companies will provide insights into markets, your industry and strategic relationships. As you gain new insights and abilities to thrive in the new economy, keep in mind this quote:

"It is not the strongest of the species that survives, nor the most intelligent, but the ones most responsive to change..." Charles Darwin

Summary of Value Chain Development Project Stages

	No		
	Stage 1: Identifying the Opportunity	Stage 2: Developing a Pilot Project Plan	Stage 3: Monitoring & Evaluating the Pilot Project
Actions	 Assess your and your business readiness Map and evaluate supply chain Identify possible opportunities Evaluate your market Assess resources, risks and capabilities Identify a small core group Provide basic value chain information 	 Select your partners/steering committee Manage key discussions Develop a pilot project plan agreeing on goals, plans and measures Identify and mitigate risk Define how you will work together (roles and responsibilities) Establish temporary organizational structure for steering committee Financial contracts/legal contracts Secure resources Build relationships 	 Launch pilot project Meet regularly Monitor pilot Communicate Build and adapt systems Identify new opportunities Decision to scale-up Ongoing relationship development
Who	 A core planning group A few trusted potential partners	Required partners	Alliance partners
Outputs	 Increased value chain knowledge Opportunities identified Assessment of resources, risks and capabilities 	 Market and business assessment Partner's commitment Pilot project plan Organizational structures and written agreements where required Resources allocated Contingency plan 	 Post pilot evaluation Corporate business structure established Adapt and build
Resources	 Financial Physical Human Intangible 	 Financial Physical Human Intangible 	 Financial Physical Human Intangible
Significant Decision Criteria	 Go/No Go Decision Making Are you and your business ready to work in an alliance structure? Are market size, growth and opportunities attractive? Do any known killer variables exist? Do the risks outweigh the opportunity? Does preliminary market analysis show viability? 	 Go/No Go Decision Making Is market size appropriate and attractive? Is there an attractive competitive advantage? Are there potential benefits? Are the financial projects in line with financial criteria? Are required resources in place? Are good partners committed? Are identified risks acceptable? 	 Go/No Go Decision Making Are deliverables in place? Are partners committed? Is the market receptive? Should we scale up and implement this new business approach?

3.3. Identifying Leverage Points from Constraints and Opportunities

Prioritizing constraints and opportunities

A priority constraint is one which when not attended to could impede the whole value chain. A priority opportunity is one which when utilized has the potential to bring large returns to all the players along the value chain. Nevertheless constraints and opportunities may be numerous; some of them are critical to the sustenance of the value chain while others are not. There is therefore the need to prioritize in order to identify the key constraints and opportunities so as to determine which of them require immediate attention. This has to be done with the involvement of all stakeholders along the chain as constraints and opportunities differ at each level of the value chain. As the value chain continues to operate, some new constraints and opportunities will emerge while some of the non-critical ones may become critical. It is therefore necessary to make identification of leverage points (critical constraints and opportunities) as a regular activity.

Examples of critical constraints and opportunities

An example of priority constraint is the introduction of EureGap 2. Because standards set in EureGap are much higher than existing ones, there is the need for major modification and improvement in operations of value chain operators in order to meet these high standards. Failure to make amendments within a reasonable time would mean inability to access European markets that could consequently lead to the disruption of the value chain.

An example of a critical constraint at the micro level could be with the consistency of input supplies. Non-availability of planting materials, fertilizer and other inputs at certain periods could have a great effect on the production process. Planting late because planting material is not available; in the case of rain fed agriculture could affect efficient utilization of rainfall leading to poor yield.

An example of a critical opportunity could be the introduction of the American Growth and Opportunities Act (AGOA). In this case a new market has emerged with huge potentials. But this also requires a radical change in operations in order to meet standards established. As competition for this market is keen, value chain operators need to strategically position themselves at every level of the chain in order to be competitive.

Another case of critical opportunities could be an undertaking of a project at the national, regional or local level that would attract a large crowd which would require a certain product for a period of time. There is, in this case a window of opportunity to meet a large demand and ability to utilize this opportunity could result in large gains to all operators in the value chain.

3. 4. Upgrading Strategies

a) Upgrading the chain

Up grading processes and activities results in value-add products and services. The activities make take different forms:

Process upgrading: it means producing the same product more efficiently – perhaps by using new technologies or management methods. For example, farmers may grow more by switching varieties or applying fertilizer; they may reduce pest attacks and save costs through integrated pest management rather than spraying; they may husk maize more quickly using a machine rather than by hand; or they may invest in building new grain bins to improve storage. Farmers can also improve their links with other actors in the chain – for example, they can sign contracts with input suppliers or processors

Product upgrading: farmers can improve their product in various ways. For example, they may plant a new variety that has more desirable characteristics; or they may stop using agrochemicals and apply for certification so they can sell their produce as "organic".

Functional or intra-chain upgrading: farmers can take on new activities in the chain, either upstream or downstream, or change the mix of activities they undertake. For example, they may start grading and sorting their produce; they may bulk it to make pick-up more convenient for buyers; or they may process it (drying, milling, etc.) to improve its value or increase its storage life.

Chain or inter-chain upgrading: farmers can also set out on a new value chain: they can start growing a new crop, keep a new species of livestock, or start a new enterprise such as dairying or agro-tourism. They may be completely new to these activities, or they may transfer their skills and experience from their existing enterprises.

4.ENABLING ENVIRONMENT FOR VALUE CHAIN DEVELOPMENT

4.1. Business Environment & Policy Assistance

Enabling business environments are defined here as sets of policies, institutions, support services and other conditions that collectively improve or create a general business setting where enterprises and business activities can start, develop and thrive. These either facilitate or hinder the movement of a product or service along its value chain.

The business enabling environment at the national and local level encompasses policies, administrative procedures, enacted regulations and the state of public infrastructure. In addition to these more formal factors, social norms, business culture and local expectations can be powerful aspects of the business enabling environment.

The environment shapes the costs and risks of doing business, hence the competitiveness of an enterprise and its value creation abilities. An enabling environment where enterprises can thrive is therefore an essential prerequisite for economic development.

Enabling environment at the local, national and international levels—this includes laws, regulations, policies, international trade agreements and public infrastructure (roads, electricity, etc.) that enable the product or service to move through the value chain.

Governments and NGOs may support value chain upgrading through legislation, regulations and policies that relax value chain constraints

These can be through:

- Providing market access by negotiating to lower barriers for (international) trade;
- supporting physical infrastructure development to achieve a smoother flow of products through the value chain (better roads and distribution facilities such as storage of products and better communication infrastructures);
- Giving access for value chain actors to production technology and other resources through for example import subsidies, and provide access to credits;
- Supporting through knowledge infrastructure development by setting up wellfunctioning education systems and providing training facilities and
- > Providing a stable economic, political and legal climate.

4.2. Improving Access to Business Development Services

- ✓ Business Development Services (BDS) are generally defined as services that improve the performance of the enterprise, its access to markets, and its ability to compete.
- ✓ Business development services include training, consultancy, marketing, information, technology development and transfer, business linkage promotion, etc

Potential BDS required	Potential BDS providers	
VCD facilitation (intervention strategy	Consultants, business associations, large	
development, linking operators, networking	companies (chain leaders)	
service prov. etc)		
Advisory services (production, processing &	Consultants, business associations, other	
handling practices, management, marketing etc.)	BDS, large companies, govt. extension	
Extension and training services	Public/ private specialized institutions,	
	business associations, other BDS	
Organizational development of farmer	Consultants, NGOs, public organizations	
organizations & MSE associations		
Research & development, technology transfer,	Public/ private research institutes,	
product development	consultants, business associations	
Certification and laboratory control services	(accredited) public/ private laboratories/	
	certification bodies	
input supplies including information on	input suppliers; (cooperatives, NGOs)	
appropriate use		
transport and logistics services	"middlemen", transporters	
marketing information, market linkages, export	bus. associations, (public)/ private BDS,	
promotion	Chamber of Commerce, NGOs	
exchange of experiences, joint learning, joint	producer organizations (farmer groups?	
marketing	cooperatives)	
consumer awareness campaigning	public health services, consumers'	
	associations, NGOs	
lobbying and advocacy	business associations, Chamber of	
	Commerce	

5.VALUE CHAIN GOVERNANCE AND BUSINESS ETHICS

5.1. Chain Governance

Value chain governance describes which firms within a value chain set and enforce the parameters under which others in the chain operate. Much of the focus is on the power of firms at different nodes of the value chain to control or govern upgrading activities, and the terms on which different firms participate within the chain. Embedded in governance are inter-firm relationships, power dynamics—both symmetrical and asymmetrical—and the distribution of benefits.

Governance is particularly important for the generation, transfer and diffusion of knowledge leading to innovation, which enables firms to improve their performance and sustain competitive advantage. While the form of value chain governance is influenced by the characteristics of the product and the degree of specification in the end market, governance patterns evolve over time with changes in markets, products and inter-firm relationships. Increasing the competitiveness of a value chain typically requires an emphasis on consistent product quality, traceability and on-time delivery.

Importantly, governance patterns also affect the ability of in-country supply chains to integrate into global markets. Where there are no systems for introducing global standards, national value chains are excluded from global opportunities. Without knowledgeable and resourced lead firms providing information on end market demand and services to facilitate upgrading, in some cases, it is impossible for a value chain to become or remain competitive.

Thus, value chain governance is a level of organization that facilitates or hinders upgrading and the ability to respond to market changes, especially in global markets. Value chain governance can be internal or external Internal Value Chain Governance refers to the structure of relationships and coordination mechanisms that exist between actors in the chain. It basically ensures the interactions between chain participants are organized, rather than being simply random. It occurs when some actors in the chain work to criteria set by other actors in the chain, e.g. quality standards or delivery times and volumes set by processing firms.

External Value Chain Governance: This is important from a policy perspective by identifying the institutional arrangements that may need to be targeted to improve capacities in the value chain (e.g. research), remedy distributional distortions, and increase value added in the sector. It is also related to chain specific legislation and regulation, but also describes general public sector interventions relevant to value chain development.

Key parameters of value chain governance:

 \checkmark What is to be produced. This includes product design and specifications.

- ✓ How it is to be produced. This involves the definition of the production processes, which can include elements such as the technology to be used, quality systems, labor standards and environmental standards.
- \checkmark How much is to be produced, and when. This refers to production scheduling and logistics.

Governance helps to determine the following:

Acquisition of production capability. Lead firms can be very demanding about reducing costs, raising quality and increasing on-time performance.

Market access. Even as developed countries dismantle trade barriers, developing country producers do not necessarily gain access because chains are often governed by a limited number of powerful buyers. Producers need access to lead firms and can gain it only by learning how to communicate with the firms and produce to specification.

Distribution of gains. The activities that reap the highest returns are usually found in intangible competences (R&D, design, branding) characterized by high barriers to entry that are frequently synonymous with holding the lead firm status in the chain. In contrast, developing country firms tend to engage in the tangible, production-related activities under terms set by the lead firm that have low entry barriers and thus low returns.

Leverage for policy initiatives. Given the power lead firms have to impose product and process parameters on their suppliers, they are also excellent leverage points for the business environment to use to exert influence on what happens in their supplier firms. Understanding chain governance and the power of lead firms can assist local and global, public and private, government and nongovernmental agencies and practitioners to advocate for better labor and environmental standards or a more equitable distribution of gains.

Value chain orchestration is defined as a way of creating and capturing value by structuring, coordinating, and integrating the activities of previously separate markets, and by relating these activities effectively to in-house operations with the aim of developing a network of activities that create fundamentally new markets.

-Orchestration describes a value-driven organization that is consciously excellent. This ability to make conscious choices and to understand the trade-offs comes from advanced capabilities in information management, demand sensing and shaping, cost-to serve analysis, end-to-end segmentation, simulation and analytics. It requires strong collaboration internally and externally.

5.2. Social and Environmental Standards

Respect for the environment and safe and healthy workplaces.

 \checkmark It is about operating in a socially and environmentally responsible manner.

- ✓ Social. Eg. Issues related to how the product is produced, Whether the product is produced using forced labor,...
- ✓ Comply with all local and country environmental, health and safety laws and regulations
- ✓ Manage their operations to minimize negative impact to the environment and community □Provide a safe and healthy work environment for their employees, including training, work procedures and personal protective equipment
- ✓ Comply with all applicable workplace health and safety laws

5.3. Safety and Quality Assurance Along the Value Chain

Food Quality

- ✓ Related to what you (consumer or other chain partner/s) expect
- ✓ Mostly observable by sensory elements (visible, smell, texture, appearance, taste, size, etc.)
- ✓ More easily controlled by taking precautions □ Less controlled by government agencies

Food Safety

- ✓ Could be measured objectively Only after laboratory investigation, which takes time and money!!
- ✓ Realisation of food safety is a value chain related issue □High concern for government agencies

Food laws are related to food safety aspects

- ✓ Protect consumers from food of unacceptable quality
- ✓ Force food companies to take new actions, which could initiate new developments like -HACCP (Hazzard analysis and critical control points)
 - -Tracking & tracing
 - o -Allergen management
 - -Different declaration of ingredients

Why is food safety is a supply chain related subject?

Food consists of many components. One contaminated ingredient could affect many end products. Eg. Milk contaminated with aflatoxin M: Cheese Pizza, Cheeseburger; Cream Ice cream, chocolate filling; Yoghurt Dressing, Yoghonaise.

There are so many possibilities that something is going wrong with the ingredient because: there is long elapsing time between production and usage; the need for transportation (in and between countries) and storage (at several places)

Many people are involved with the handling: farmer transporter warehouse employee factory worker internal storage logistics operatorMistakes could be made at each step by the people involved

What are the major bottlenecks to produce safe foods?

Ready for export to countries abroad?

- ✓ Using wrong seeds/input producing agricultural products (like, wheat, corn, eggs etc.)
- ✓ Pesticides are not handled in the right way and are applied just before harvesting
- ✓ Damage during the production of agricultural products
- \checkmark Not storing these products under the right conditions
- ✓ humidity and temperature is not kept within limits
- \checkmark rodents or other animals have access to the warehouse
- ✓ Transportation causing contamination, damage or unnecessary delays
- ✓ In which way we can overcome these bottlenecks?
- ✓ Education & practical training at different levels
- ✓ Anyone participating in the food chain should understand his responsibility to produce safe food
- ✓ Control, monitor and report the circumstances/conditions continuously
- \checkmark Make corrections if necessary and evaluate the collected data from time to time

5.4. Business Law and Ethics

Health, safety, and environment: commitment to the health and safety of people and communities where they work. It requires taking all necessary steps to provide a safe working environment for employees. It also requires taking every precaution to protect the environment and the wellbeing of the communities.

Sustainability: Strong commitment to sustainable development and the environment; providing long term sustainable solutions for customers and preserving our planet's natural resources for future generations; and commitment to limiting environmental impact.

-Corruption: Knowing about and complying with anticorruption policy and the procurement integrity laws in effect. It includes strict prohibition from offering, giving, or accepting any form of a bribe, gift, or benefit designed to influence a business decision. This prohibition extends to payments and gifts in cash or in-kind, made directly or through others.

Inclusion, Diversity, Harassment: committed to eliminating discrimination and harassment in the workplace. It requires complying with all applicable laws on non-discrimination and anti-harassment in hiring and employment.

Human Rights: respecting and protecting the rights of those who work. It requires providing reasonable working conditions and fair wages, and expect the value chain to do the same. It requires implementing zero-tolerance policy for the use of child or forced labor and for any other human trafficking practices. It may require refusing to do business with those who do not share the zero-tolerance stance.

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