Value chain analyses as a base for successful agribusiness development

Urgent need to do things differently

The supply side of agrifood chains is confronted with challenging demands such as improving product varieties and productivity, reducing/eliminating postharvest and other losses, and ensuring soil fertility and water availability. On the other hand, consumers demand convenience, quality, safety, security, and affordability. Supply-demand dynamics are complicated by the current retail and distribution systems, leading to substantial inefficiencies and loss of value. The netchain improvement framework (NIMPF) is a tool to diagnose how chain actors can align their activities and create interventions to ensure market relevance and competitiveness for their chains/businesses. A summary of an SNV Netherlands Development Organisation project, funded by the International Fund for Agriculture Development under the overall responsibility of the Ministry of Agricultural Development and in partnership with the Agro-Enterprise Centre, in Nepal is presented to demonstrate the interventions carried out at different levels and the results achieved.

The NIMPF

The NIMPF has improved substantially based on experience over the last decade. It involves a multicycle approach based on the plan-do-check-act cycle for continuous improvement (Figure). Each cycle contains 11 steps in four phases. The process is initiated through a quick scan to identify within a short period (hours) the most important challenges and low-hanging fruit. The subsequent cycle is a more detailed investigation to lead to an action plan for improvement, and the third cycle leads to more complex innovations and can take one to three years.

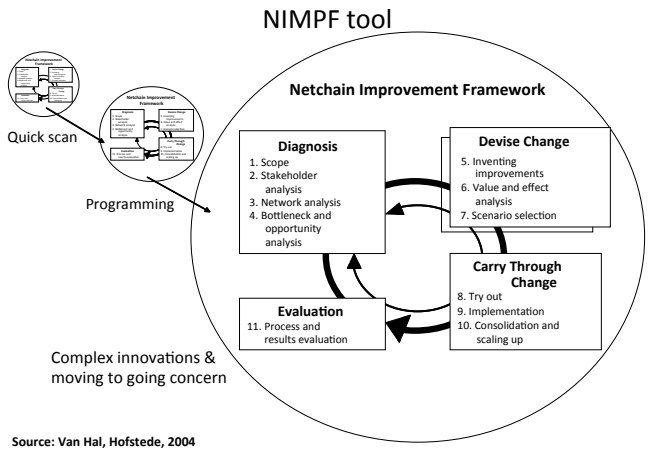

Figure. The Netchain Improvement Framework cycles. Reproduced, with permission, from Van Hal, P. and Hofstede, G.J., Netchain IMPRovement framework for chain and network diagnosis and change, 2004.

The approach is based on an iterative, interactive process gradually building trust among the chain stakeholders, allowing collective actions and chain improvement. Chain innovation moves from a project orientation toward the business-as-usual model as part of total quality management in the chain.

Four phases

Every cycle has four phases: 1) diagnosis; 2) device change; 3) carry through change; and 4) evaluation. Every phase has multiple steps. For every step, a different set of analytical tools can be used (for details, go to www.value basedmanagement.net). Depending on the context of the problem and experience of the moderator, a specific mixture of tools can be used. The added value of the NIMPF is the specific sequence of tool usage for analyzing the context.

Phase 1: diagnosis/step 1: scope

The step that defines the scope acts as a reference for all subsequent steps. It defines the value chain at macro sector/regional level or operational (micro) business-to-business (B2B) level. Scoping is directly linked to the objectives and strategy from a business perspective. In a netchain, while there is no unity of ownership, a clear delineation of crucial tasks and key stakeholders is made. In essence, this step focuses on aligning the objectives/goals of different stakeholders within the chain to work out relevant interventions.

Steps 2 and 3: stakeholder and network analyses

Chains and networks are open systems. Who are the stakeholders (Table 1)?

Step 4: bottleneck and opportunity analyses

This step finalizes the diagnosis and provides a perspective on possible solutions. It is the base for the creative part of step 5 during phase 2, which is to design the change(s) required. Here the key focus is to create a netchain that is more than sum of its parts. Experience

Table 1. Variety of stakeholders in agrifood business chains.

Agri food business chain/network revealed

Institutional enabling environment	**Policy development & execution, research, project funding, donor organization, educational institutes...**					
Service providers	Quality control Finance, banks, insurance ICT		R&D facilities Document processing Certification		Private training Consultancy Techn maintenance	
Chain actors	Fertilizer Crop protection Seeds Breeds Equipment	Crop Animals Fish Milk Silk Feed	Meat Dairy prod. Flour Juice Food prod. Semi processed	Commodity Fresh Processed Cold Dry Packed	Store Kiosk Market Hotel Restaurant	Local National Regional Global
	Input supplier	**Producer cooperative**	**Processor**	**Trader**	**Distributor/ retailer**	**Consumer**

suggests that project participants often skip a proper diagnosis phase and jump directly to step 5. However, without understanding the context, force field, etc., the success ratio during implementation is very low. During the second or third cycle, steps 1–4 can be updated quickly because in most cases the context does not change rapidly.

Phase 2: device change

In this phase, the idea is to move from the present to the desired situation and understanding the resources required to get there. Some examples of the objectives at the chain level are: optimizing transactions (speed, reliability); utilizing technology; introducing new information processing units; shifting transactions to other actors; eliminating linkages; or reorganizing actors like developing cooperatives, alliances, joint ventures, outsourcing, etc. Based on value and effect analyses (step 6) a scenario is selected (step 7).

Phase 3: carry through the change

This phase marks the start of the execution of the ideas developed during phase 2. Testing (step 8) and implementing (step 9) the ideas will lead to changing old habits and traditions or to eliminating certain activities. The major challenge is to introduce the actual change while normal business continues. This step increases the capacity of the netchain stakeholders to predict what effects the changes may have in terms of quantitative changes, changing roles, cultural differences, and effects on competencies of individuals, especially management. After implementation is completed, the next questions arise: How can the changes be consolidated? How can they be scaled up to other parts of the network (step 10)? In many cases, this will lead to a new project and a new cycle starting with step 1.

Phase 4: evaluate improvements

Before starting a new project, step 11, process and result evaluation, is important. To what extent (both qualitative and quantitative) did the previous steps contribute to the goals defined during step 1? Which effects were not anticipated and which were not included? What is the opinion of all stakeholders on the future? The output of this step is important to improve the next innovation cycle.

Moderator shift

During the multiple cycles, there may be a shift in moderators. During the quick scan, one person typically investigates the chain. This could be a chain leader or an outsider like a consultancy firm, regional innovation agency, NGO, or donor organization. During different cycles, the actors develop trust and experience win-win options. Chain innovation becomes more business as usual. The stakeholders involved change with every cycle. Generally, we see a shift toward more business involvement and fewer public actors. Operation should be "triple P (profit, people, planet)" driven so that an attractive, sustainable business model evolves and moderation shifts to the chain leader.

Please go to the APO website for the unabridged version.

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