Value Chain Management Workbook

A Guide for Assessing Your Operation
Within The Context of Material Presented at the
Value Chain Management Workshop

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Section 1: Introduction

Background

Value chains are formed in response to consumer demand to meet a specific market opportunity and benefit all parties. They are a mechanism that allows companies to more effectively respond to market drivers by aligning their operations to maximize efficiency and effectiveness in relation to an identified market opportunity, and drive out unnecessary costs. The aim is to increase the value that consumers perceive a product to offer, hence the name 'value' chain.

A value chain is a system comprised of a series of subsystems

- Finance
- Governance
- Human Resources
- Information
- Operations & Quality
- Marketing

While predominantly vertical in structure, most value chains also have horizontal aspects, such as producer alliances or formally structured cooperatives. Value Chain Management does not discriminate about whether the resources and infrastructure used to perform any operation or procedure are owned by one or many companies. The same principles apply to vertically integrated corporations that traverse part, or all, of the chain, as they do to a chain solely comprised of independent businesses working together to enhance their overall competitive advantage.

Purpose

The purpose of this workbook is to assist you in identifying opportunities to improve the competitiveness of your business. A growing segment of the international agri-food sector is using value chain management approaches to assist in adapting to a changing commercial environment; and you can do likewise for your own competitive advantage. You cannot prevent change. You can only seek to adapt to it more effectively than your competitors by innovating in terms of products, processes and overall business strategy.

The session will challenge you to examine your business and answer the following questions:

- What can I learn from others in terms of each of the following:
  a. Reducing the extent and impact that external factors have upon my business
  b. Developing and maintaining effective business relationships
  c. Managing risk more effectively over the long-term
  d. Developing successful value chain alliances
  e. Reducing business costs and/or improving revenues

- What benefit would the formation of a value chain alliance offer me in the following time frames:
  a. Short-term
  b. Medium-term
  c. Long-term

- Am I ready to partner with others and form a value chain alliance and, most of all
    a. Why would someone want to partner with me?
    b. What skills and value would I contribute to an alliance?
    c. Am I ready to commit to an alliance?

- How do the key principles of *value chain management* and *maintaining a successful alliance* relate to my business?

- What points of reference can I use to judge improvements in my competitiveness and the development (and management) of a value chain to which I belong?

Innovation comes in a number of forms and is rarely easy. We hope this material provides you with ideas that will enable you to improve the competitiveness of your business by successfully adapting to a rapidly changing, and increasingly international, business environment.

Section 2: Explanation of Value Chains

Principles of Value Chain Management

1. Focus on customers and consumers
2. Choose the correct partners
3. Identify and share strategically important information
4. Have excellent leadership
5. Develop and execute an effective marketing strategy
6. Produce and position the product correctly in the market
7. Ensure effective logistics and distribution
8. Implement and maintain a suitable governance system
9. Build effective relationships
10. Ensure operations reflect strategy

Adapted from Collins & Dunne, 2002

Principles of Maintaining Successful Producer Alliances

1. Share a clear vision and common goals
2. Possess capabilities to create value
3. Have a culture that supports cooperation and learning
4. Have compatible partners
5. Proactively manage the relationship
6. Regularly evaluate and report
7. Continually adjust to changing circumstances

Collins & Dunne, 2002

Aspects Of An Ideal Value Chain Versus Situations Common To Current Supply Systems

Ideal	**Too Often**
Short	Complex
Fast	Price-driven
Transparent	Confrontational
Seamless	Disjointed
Collaborative	

Hughes, 2002

Traditional Business Approaches Vs. Value Chain Alliances

	Traditional	**Value Chain**
Sharing of Information	Little or none	Extensive
Type of Information Exchanged	Transactional (price, order entry, shipping, physical characteristics)	Managerial & Strategic (as required to tailor products & services to customer needs: market signals, costs, margins, quality, product & process innovation)
Structure	Long, Complex and Uncoordinated	Short, Straightforward and Coordinated
Primary Commercial Focus	Cost/price	Value/quality
Orientation to Market	Commodity	Differentiated
Market Focus	Generic and price based	Segmented and value based
Market Strategy	Fragmented and splatter-gun	Informed and specific
Relationship to Market	Producer "Push"	Consumer "Pull"
Organizational Structure	Independent	Interdependent
Philosophy	Self Optimization	Chain Optimization
Business Relationships	Adversarial	Collaborative
Timeframe	Short Term	Long Term
Company Orientation	Individualistic (boundary of the firm is distinct – focus is on "self benefit")	Collective (boundary of the firm is blurred – focus is on "mutual benefit")
Industry Focus	Resisting Change	Adapting to Change
Company Characteristics	Preoccupied with External Threats	Focused on Exploring Opportunities from Within
Processes and Systems	Fractionalized	Integrated
Financial Focus	Price = Cost + Profit	Profit = Price – cost
Risk Management Options	Few: apply only to transactions, are short term, & inconsistent in their effectiveness	Many: apply to operations and strategy, are medium to long term, and consistent in their effectiveness
Corporate Culture	Top-down, autocratic and rigid	Autonomy of personal accountability to encourage continually improvement
Purpose of Governance	Maintain and protect the status quo at the operational and strategic levels	Empowerment to challenge the status quo within strategic guidelines; strengthen the commitment of suited partners; purge the chain of unsuitable participants
Incentives Calculated On	Price and volume within an individual company	Value created along the chain

Gooch, 2006: Adapted from Gooch, 2005; Engelbart, F., 2000; Cornwell, F., 2000; Bouma, J., 1999

Section 3: Motivation for Forming a Value Chain

What is the strategic intent of your business?

Top 3 strategic issues facing your business

1.

2.

3.

Can you identify the cause of these issues?

1.

2.

3.

How would belonging to a value chain help address these issues?

1.

2.

3.

What vision would your value chain need to have to address these issues?

Section 4: Mapping the Chain

A value chain encompasses the entire series of activities: from on farm production, through to processing, distribution, and the retailing of a final product to the consumer. It is a strategic alliance undertaken between independent business organizations.

Value chain management involves ascertaining why someone belongs to the chain that currently exists, identifying what value they bring to the chain, and looking for ways to produce and deliver the end product more effectively and efficiently. It is a reiterating process, continually looking for opportunities to improve the overall chain's performance in order to successfully adapt to market conditions and retain competitiveness against increasingly capable competitors.

With the attributes of an end product often emanating from a particular point in the chain, identifying which attributes suit a particular market, and how those attributes can be protected, enhanced and delivered to the end market in the most effective and efficient manner possible, can place you in a powerful competitive position.

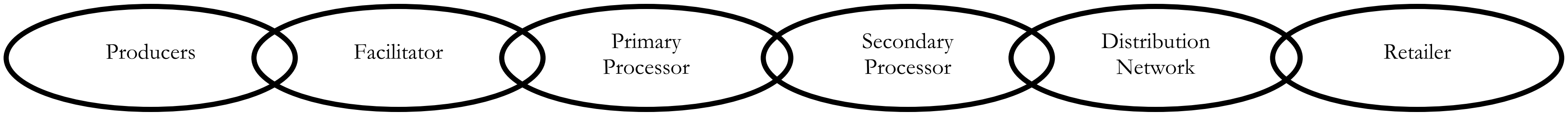
The first stage of preparing to adopt value chain management principles is mapping the chain. The purpose behind 'mapping the chain' is to identify the path taken by your product (and other ingredients) as they are processed and delivered as a final product to a specific market. This allows you to familiarize yourself with the businesses involved in producing a final product purchased by consumers, and identify the major operations undertaken during that process.

Once you are able to identify the current path taken in supplying an end product, the opportunity exists to first better understand the businesses that are involved in producing and delivering an end product to consumers. You will possess added awareness of some of the challenges that they face and how these challenges influence their relationships with others operating along the chain. Assessing the relationships that exist between (and eventually within) the involved businesses and the impact that this has upon the overall supply process, enables you to begin the process of developing more effective relationships, which are the glue that hold value chains together.

You are then in a position to map a new and enhanced value chain, including the necessary partners. This is particularly important when developing new products and markets. Identifying the target market's demands, and the challenges involved in meeting those demands, helps develop the roles, responsibilities and accountabilities of each member of the alliance (as required to ensure the alliance's long-term success) into an effective governance structure. Once all the 'parts are in place', the next step is translating market demands into an economic value that can be shared amongst the members of the alliance.

From this point onwards, the objective of value chain management is to identify ways to improve the overall chain's operations and, in doing so, maximize your competitive advantage; not least by reducing the level of risk facing your business. Through fully understanding your chain partners' needs and risks, and how you can help mitigate those risks, you will have the opportunity to strategically imbed yourself into the value chain, as will your partners through understanding your needs and risks. Never forget that attention must continuously be given to both strategic and operational factors in order to make this happen successfully.

Example of simple Value Chain Map:



Complete the map of your current chain.

Input Suppliers	Producers	Processors	Distributors	Retailers	Consumers
List the Key Firms	List the Key Firms	List the Key Firms	List the Key Firms	List the Key Firms	List the Key Market Segments

Section 5: Forming Value Chains

The purpose of this exercise is to establish what each company in the value chain does from an operational standpoint to create value for the end consumer. The aim is to help you assess whether their specific functions aid the overall value chain in meeting market requirements. After reviewing the information contained in this section, you will be able to begin the process of making informed decisions about whether their involvement adds value to the final product or is an unnecessary cost. If value created does not exceed the cost of production, you have some decisions to make.

Critical Success Factors of Value Chain Management

1. Vision
2. Leadership and Creating the Correct Culture
3. Roles, Responsibility, Accountability
4. Motivate To Continually Improve
5. Building and Maintaining Effective Relationships
6. Implement Effective Communication Strategies
7. Create, Share, and Protect Value
8. Start Off Small
9. Restrained Ambition: Step by Step
10. Get the Product Right Every Time
11. Acknowledging Differences: Forming vs. Managing
12. Experience Things Together

Activities That Take Place in a Value Chain

1. Critical and add value to the end product
   - Termed: *value-adding activities*
2. Necessary for the chain's operation, though do not add value to the end product
   - Termed: *value-enabling activities*
3. Not necessary for the chain's operation and do not add value to the end product
   - Termed: *Muda (waste)*

Hines, 2000

Ensuring Your Chain Operates in Accordance to Market Requirements

Understanding the Market

This section is designed to help you identify the factors that will shape the overall structure and operations that need to occur within your chain to consistently meet target market demands.

A. Identifying Your Target Market Demographically:

This section is designed to help you understand who your target market really is. Fundamentally, these questions are asking you to describe what your target market looks like.

I. Is your target market more likely to be male or female?

II. What would you estimate their age to be?

III. What type of education level have they attained?

IV. What type of profession are they in?

V. What do you think the income range is?

VI. In what region of Canada or the U.S. do they live?

How confident are you in the accuracy of your responses?
(Please check only one.)

- ☐ Extremely confident
- ☐ Somewhat confident
- ☐ Somewhat unconfident
- ☐ Extremely unconfident

B. Understanding Your Customers Through Their Desired Product Attributes:

This section is designed to help you understand who your target market really is and what information you currently know about them. This will help you to identify gaps in your information and provide some indication of where marketing research can be of service.

i) How frequently does the end user purchase your product?

ii) Why do they use your product?

iii) Where do they use your product?

iv) How often do they use your product?

v) How do they use your product? (i.e., What do they do with?)

How confident are you in the accuracy of your responses?
(Please check only one.)

- ☐ Extremely confident
- ☐ Somewhat confident
- ☐ Somewhat unconfident
- ☐ Extremely unconfident

C. Understanding Your Product:

This section is designed to help you understand what your product's place is in the market and why. This will help to identify gaps in your information and provide some indication of where marketing research can be of service.

i) What are your product's greatest strengths?

ii) What are your product's greatest weaknesses?

iii) How is your physical product different from comparable products produced by your competition?

iv) Beyond just physical characteristics, what makes your product different from your competitors? Is there anything intangible that sets your product apart?

v) What specific needs does your product address for the end user?

How confident are you in the accuracy of your responses?
(Please check only one.)

- ☐ Extremely confident
- ☐ Somewhat confident
- ☐ Somewhat unconfident
- ☐ Extremely unconfident

D. Understanding The Marketplace:

This section is designed to help you understand how your product fares against your competitors' products in the market. As you answer these questions, please think about how your competitors' products are sold to the end user (e.g., grocery stores versus farmers markets, etc), how they promote their products and how they price their products.

i) Who is your competition?

ii) What competitive advantages do you have over your competition?

iii) What competitive advantages does your competition have over you?

iv) How loyal are your competitors' customers to their product?

v) How do you know this information about your competition?

How confident are you in the accuracy of your responses?
(Please check only one.)

- ☐ Extremely confident
- ☐ Somewhat confident
- ☐ Somewhat unconfident
- ☐ Extremely unconfident

E. Understanding Your Partners: *pt. 1*:

"No one can make a profit producing anything
unless the customer makes a profit using it."
Samuel Pettengill

This section is designed to help you understand your value chain partners' businesses better; first from a marketing/operational aspect, then from more of a strategic orientation. This will help to identify gaps in your information and provide some indication of where marketing research can be of service.

i) What value do your partners add to the production of the end product purchased by consumers?

ii) How is the value they add different from the value that their competitors add?

iii) How satisfied are their customers with the products and services they have been providing?

iv) What are the three biggest marketing problems your partners face today, in terms of meeting consumers needs?

v) What value can you create by helping to solve your partners' problems?

How confident are you in the accuracy of your responses?
(Please check only one.)

- ☐ Extremely confident
- ☐ Somewhat confident
- ☐ Somewhat unconfident
- ☐ Extremely unconfident

F. Understanding Your Partners: ***pt. 2***
Strategically embedding yourself in the chain through creating benefits that your partners come to value beyond what can be achieved in a traditional commodity system requires you to understand your partners from both a market and operational perspective. In completing the following tables you will tangibly identify the attributes/skills that you (and visa versa for the other members) must provide for the overall chain partnership to view you as a valuable participant.

Looking at the information that you compiled in Sections A to E, identify the strategic opportunities and drivers for the individual chain participants and the chain overall. Then identify what each of the chain participants will need to accomplish/provide in order for the other members to achieve their strategic objectives and, in so doing, benefit from belonging to the chain.

The exercise will help you and your prospective (or current) partners assess whether your respective needs/expectations/capabilities match sufficiently to co-develop and remain committed to participating in a closely aligned value chain. It will also help you develop a series of performance measures and management protocols around which the chain will be governed. We have purposely restricted the tables to include three items each, which will help you use your available resources most effectively.

How do these factors translate in the primary strategic needs of both the individual members and the overall chain, and which must be met for everyone to remain committed?

Partner 1	Partner 2	Partner 3	Partner 4	***The Chain***

What does each participant in the Value Chain need to do to be successful?

Partner 1	Partner 2	Partner 3	Partner 4	Consumer

What are the associated risks for each participant?

Partner 1	Partner 2	Partner 3	Partner 4	Consumer

How can each partner add value and reduce risk by addressing the needs of others?

Partner 1	Partner 2	Partner 3	Partner 4	Consumer

Adapted from Purdy, 2006

G. Ensuring That Chain Operations Reflect Market Requirements:
Now you have completed that exercise, you can list how what each of the participants contributes value to the overall partnership and whether their current operations need to be modified in order to maximize their contribution to the chain as a whole.

Value Chain Participants				
Company Name	Looking at characteristics of the end market, list what the company provides in terms of end value	What is the company's current function?	Does this function meet market requirements	Could the function be modified at all to reduce costs and/or increase value of the end product?

H. Comparing Your Present Value Chain to a Future, Improved Value Chain

For those looking to improve a chain to which you currently belong: Looking back on what you have identified, list the practices that need to change from your current situation in order for the operations of the desired future value chain to be able to better reflect market demand than is currently the case?

1. ______________________________

2. ______________________________

3. ______________________________

What benefits will this bring you in terms of helping to reduce cost, increase revenues, and/or manage business risk?

1. ______________________________

2. ______________________________

3. ______________________________

How could you maintain momentum and commitment to the value chain partnership by implementing and abiding by these changes?

1. ______________________________

2. ______________________________

3. ______________________________

Section 6: Strengthening the Chain

"The sharing of information is a key factor for reducing adversity between buyers and suppliers"
David Wilson

Two-way flow of communication

Communication, in order to understand each other's challenges and identify ways to improve business operations – and therefore competitiveness, is the primary way of strengthening business relationships. The ability to share accurate and timely information that can be acted upon in conjunction with your customers and suppliers, and applied with precision ahead of your competitors, is itself a competitive strength. When you can monitor the outcome of collaborative business decisions and review this information to continually improve your operations, you have the basis of a strong and competitive chain.

What part of the chain do you feel you know the least about? Does a lack of knowledge surrounding the operations performed in this part of the chain influence the relationships that exist between you and the other party(parties)?

Explain: yes, no, and why?

What part of the chain do you feel you know the most about? Does this give you hope that you can improve relationships between yourself and others along the chain that have, to date, not been as good as you desire?

Explain: yes, no, and why?

Could knowing more about the challenges, operations, as well as the opportunities facing members of the chain, improve the business relationships that currently exist?

On what evidence do you base your answers?

What part of the chain do you know least about in terms of challenges that they face? Why?

Why do you get insufficient information about this part of your supply chain?

What information would you like to possess about the part(s) of the chain that you currently have the least understanding about?

Suggest two ways by which you could begin to share information more openly with this chain member and, in so doing, begin to improve your relationship(s)?

1.

2.

Identify two benefits that would come from improving the current situation and more openly sharing information with these chain members?

1.

2.

Now complete this table. It will provide an easy reference point for you to identify where you need to invest resources in improving communication along the chain to which you belong.

Chain Partner	Know very well	Could know better	Don't know well
My input suppliers			
My customers			
My consumers			

The Thorny Issue of Sensitive Information

No organization will be willing to share all their information with other partners from the get-go. Furthermore, arguing about the information that should be shared can make potentially valuable members of a chain reticent to give their all. Therefore, deciding up front what information specific partners will share, with whom, and in what format, as well as deciding what information will not be shared (and with whom), can markedly reduce conflicts along the chain. Purely that act of having to justify why certain information needs to be shared can be a valuable exercise in understanding the concerns and apprehensions of others. Similarly, showing respect for others' wishes can lead to added respect growing amongst the partnership, with resulting benefits accruing amongst the partners.

The process of deciding what information will and will not be shared (and between whom) should not be viewed as a pressure tactic to coerce anyone to relent and share information that they do not feel comfortable expressing. It is a process for encouraging participants to focus their resources on proactively exploring opportunities to strengthen their relationships and use the information that is shared to continually improve operations in ways that reflect market demand.

It is suggested that you also agree that decisions on information sharing will be reviewed at appropriate periods in time as the chain partnership progresses. This shows that the members are prepared to explore new opportunities as chain relationships strengthen and, in doing so, encourage members not to act opportunistically and undermine the long-term initiative.

Info Type	Will it be shared? Y/N	Purpose/ Objective of sharing	With who - Organization & Person(s) will info be shared	Level of confidentiality given to info	Are there requirements that must be met prior to sharing?	Format in which info will be shared	How and when info be shared	Performance: how will benefits of sharing be measured?	When/if will we revisit info sharing arrangements?

Section 7: Developing a Project Plan

To get things done, you must identify who needs to undertake what tasks, along with when the tasks must be undertaken, in which order, why, and what the estimated benefits will be. The chart below is taken from the Perfect Pineapple project, a value chain initiative that saw an overall reduction in value chain costs, improvement in quality, and increase in producer returns. All of these were enabled by identifying problems that had inherently occurred in the chain; then addressing those problems through a well-planned series of tasks.

The Perfect Pineapple Supply Chain Project Plan

	Ease	Timing	Team							
			Retailer	*Transp Out*	*Canner*	*Transp In*	*Growers*	*Pallet Supply*	*Carton Supply*	*Can Supply*
Customer Integration		ST/LT	✓	✓	✓			✓		
Align consumer demand project 10 to 8 days SOH @ Retailers DCs	2	ST	✓	✓	✓					
Smoothing material flow (all product) transport / primary freight / packaging	5	LT	✓		✓			✓		
Consumer trends (alignment Canner/retailer)	2	ST	✓		✓			✓		
Internal Integration		JDI/LT	✓		✓		✓			
Avoid shift work with supply modification / analysis	3	JDI			✓					
Cost benefit of unsweetened from concentrate	2	JDI			✓					
Nitrate management	2	JDI			✓					
SKU rationalisation	4	JDI/ST	✓		✓		✓			
Align fruit intake to sales demand	4	LT			✓		✓			
Remove nightshift requirement / asset utilisation	3	LT			✓					
Rationalise of process lines	5	LT			✓					
Reduction of on-the-job training of seasonal staff	3	LT			✓					
Reducing premium paid for casual labour	3	LT			✓					
Remove inefficiency in low volume period	3	MT			✓					
Grower Integration		JDI/LT			✓	✓	✓			
Increase sugar levels through quality based payment system (QBPS)	4	JDI/LT			✓		✓			
Review grower rationalisation	5	LT			✓	✓	✓			
Feasibility study of sourcing supply options aligned to customer requirements	4	LT			✓	✓	✓			
Packaging Integration		JDI/LT			✓			✓	✓	✓
Five day carton inventory project	2	JDI/ST			✓				✓	
Electronic Receipting	3	JDI/ST			✓				✓	
PLI (Product, leadership & Innovation) Generic carton cost feasibility project: reduce SKUs	3	MT/LT			✓			✓	✓	
Can guage project (all products)	2	ST			✓					✓
Tin Coating	2	MT			✓					✓
PLI - Product, Leadership & Innovation	3	MT/LT			✓			✓		✓
EDI - Receipting	3	JDI/ST			✓					✓
Forecast Accuracy	4	LT			✓					✓
Enablers		JDI/ST			✓					
Develop & Communicate Short - Long Term Strategy for Pineapples	3	JDI/ST			✓					
Continued costing and profit potential	3	ST			✓					
Confirm targets & current state	2	JDI/ST			✓					
Develop & Communicate Short - Long Term Strategy for Pineapples	3	JDI/ST			✓					

JDI = Up to 3 months
ST = Up to 6 months
MT = Up to 18 months
LT = Up to 5 years

Using the table below, devise a rudimentary plan identifying who needs to undertake which task and for what reason in order to achieve outcomes that will benefit the entire chain. Include timelines and responsibilities. The result will be the formation of accountabilities throughout the chain membership.

	Ease	Timing	Team					
Objective								

Section 8

a. ***Managing Processes***

Identifying and implementing processes suited to meeting previously identified customer demands can reduce costs through minimizing waste or costly use of unnecessary resources, and enhance the overall value of a production system. The model followed by much of agriculture in particular is to sift through products produced by processes that have not been well thought through. With the cost of rectifying a quality problem estimated to increase by a factor ten (10) at each link in the chain, the earlier that a problem is identified and rectified, the better.

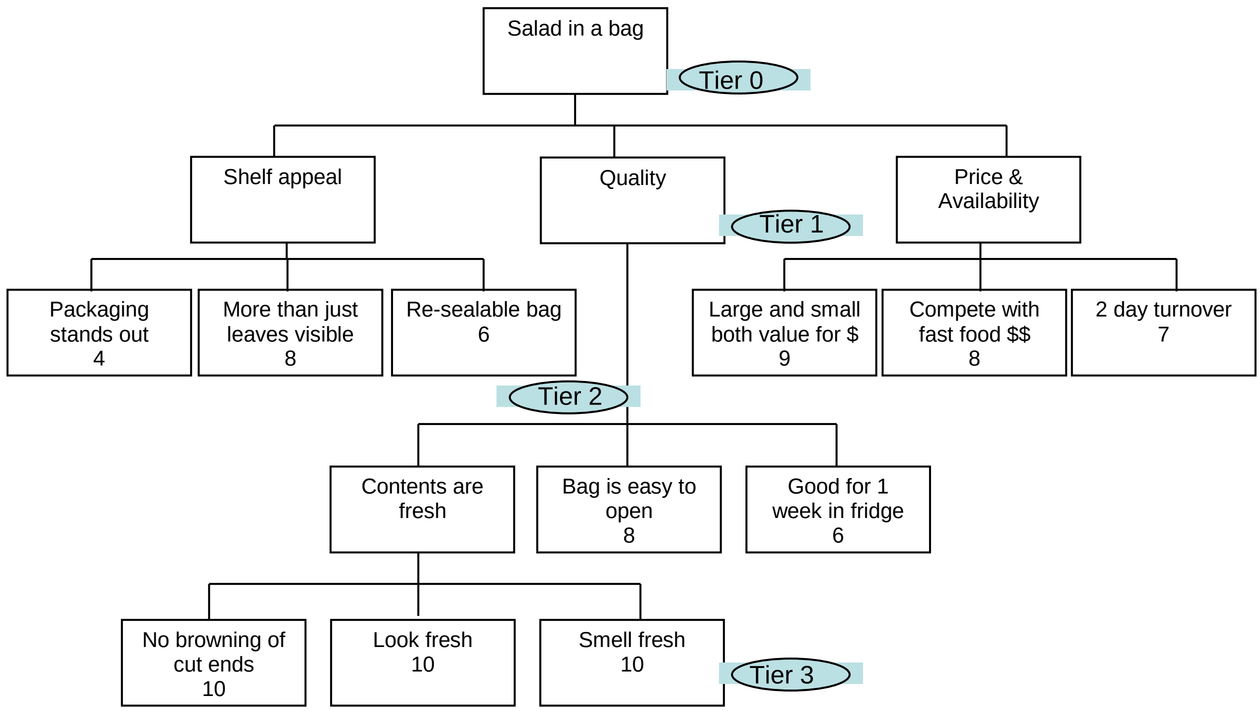
Begin by identifying what the customer needs

- Who is the customer – part of your organization or external?
- What does your customer define as critical to quality?
- If your customers were to score each declared attribute of your product according to the scale below, and you were to do the same, would you and your customers agree on the critical aspects of your product's performance?
- Is your performance where it needs to be?
- If not, how big is the gap?
- What does any gap tell you about the type of information that you and your customer(s) should be sharing?

Score your customer critical to satisfaction needs using the following scale

9-10	deal breaker if not met
7-8	customers could be highly dissatisfied if not met
5-6	not a deal breaker, but could be a delighter
3-4	customers indifferent to this attribute
1-2	customers not really interested

Critical to Satisfaction Tree



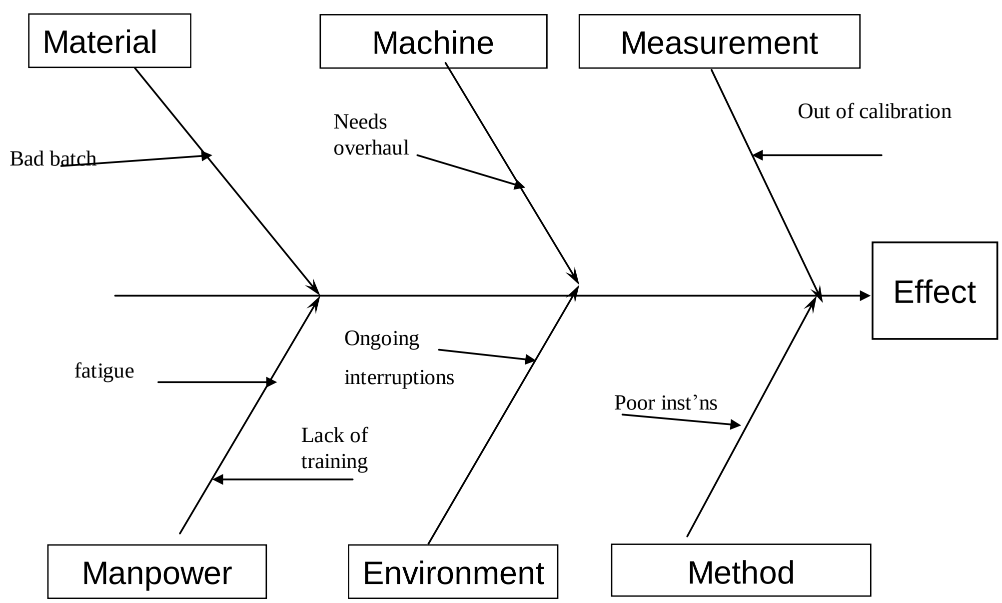
Your Critical Satisfaction Tree

Draw a critical to satisfaction tree (CST) for a product that you produce. This will best be achieved by talking with your customer. The aim is to provide clear insights on where to focus management resources for improving long-term performance to both reduce waste and strengthen business relationships.

Cause and Effect Diagram

Every problem or issue identified in the CST has a cause. The 'fishbone' model is a method of guiding managers and operators through the process of tracing problems back to their source, in order to identify potential root causes. Once the root causes of quality or operational issues have been identified, the focus then turns to developing ways to address those issues.

Sample cause and effect diagram



Draw a cause and effect diagram for the issues identified in the critical to satisfaction tree. This will take you some time to fully complete, and may require a cross-functional team from different parts of the chain to develop effectively. Modify the titles of each 'arm' to reflect your situation.

Addressing and Prioritizing Critical To Satisfaction Issues

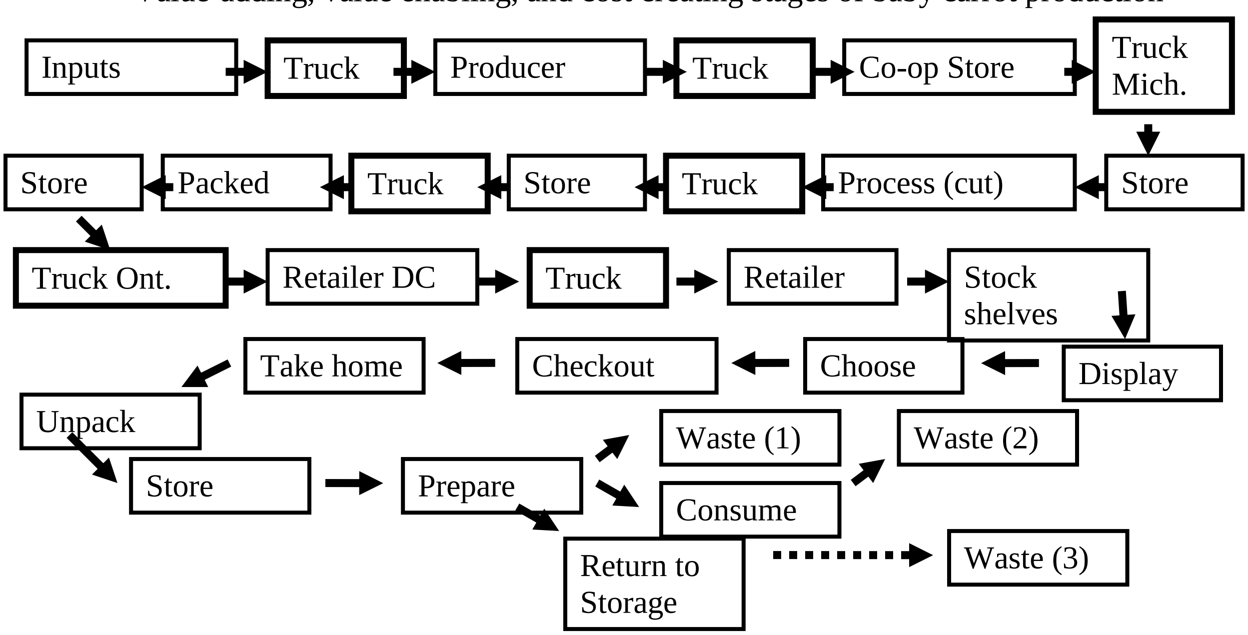
You cannot address everything at once. Neither does every cause and effect carry the same weight or importance. Completing the table below will guide you through the process of identifying what causal factors should be addressed first to achieve the greatest benefit. Do not begin with an enormously complex issue that will potentially take a long time to address; start small and gain experience (as well as confidence) before tackling bigger and more complex issues that may span a number of links along the chain.

Critical Issue	Importance (Score)	Cause	Potential Effect	Resources Required to Address	Time Needed to Address	Priority

Process Mapping (Macro)

Now that you have prioritized the issues you want to address first, you need to identify how they fit within the overall chain's structure and operation. Mapping the processes that take place within your chain (at a high level first) will guide you through the process of identifying who needs to buy-in to the initiative, how performance might be measured (and by whom), and assess whether any unintended consequences could arise from the proposed initiative. The result of this activity may show that you need to modify your intensions to enhance the overall chance of success.

Value-adding, value enabling, and cost creating stages of baby carrot production

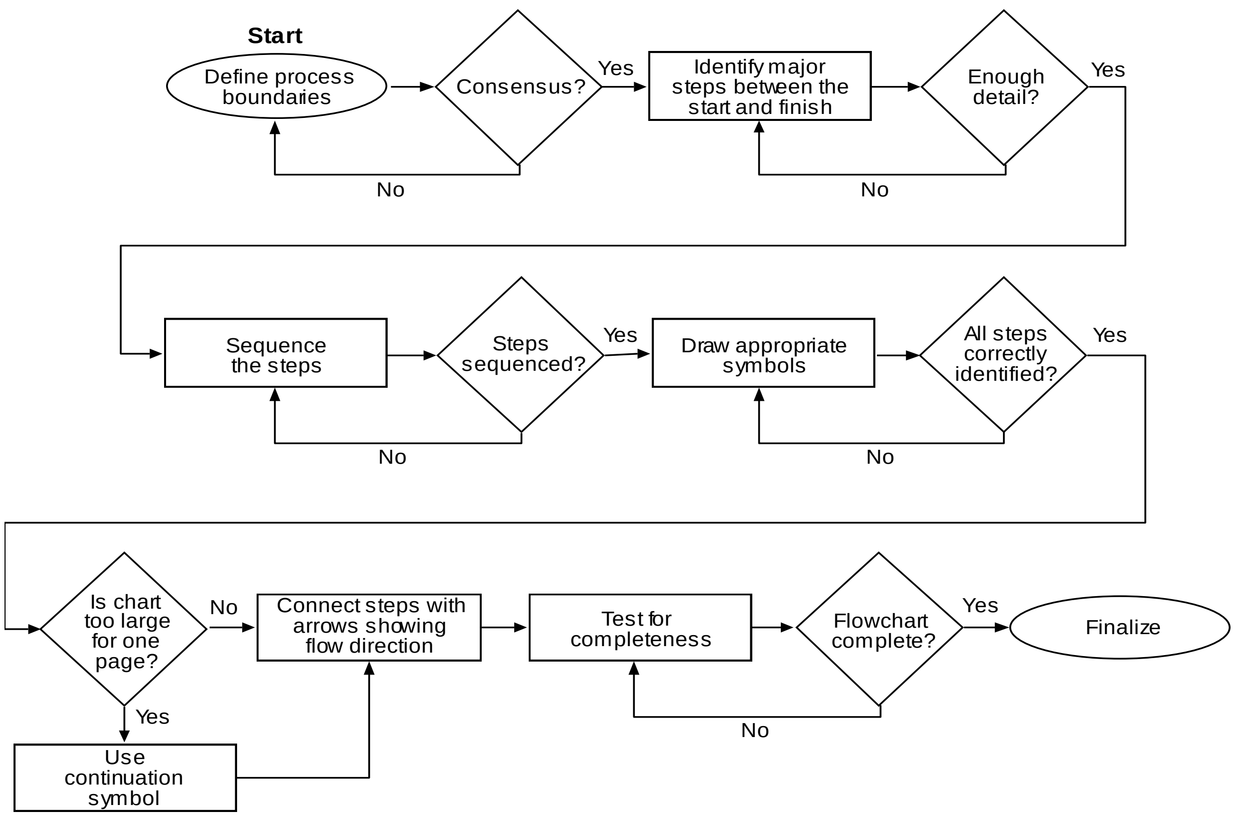


Draw a macro process map for your chain. This is a high level exercise to identify the main processes that take place along the chain, not just within the companies involved in the chain, and how you as a member of the overall chain could increase the value of the product. This could encompass reducing costs or improving quality, from either of which you can benefit financially, and the potential for which you would explore further through a micro-level process map.

Micro (Process) Mapping

The purpose of micro (process) mapping is to enable you to understand in detail processes occurring within an individual link in the chain, and what within their intricacy might cause the problems identified in the CST or the macro process map. For your situation, a chain link could mean an entire business or a section within that business. This activity will enable you to identify any inefficiency that occurs within this specific link in the chain, why that inefficiency occurs, and begin developing a plan to address it - permanently. At the very least you will gain a more detailed understanding of your business than most, which alone can return significant dividends.

Instructions for Generating a Process Map (Micro)



Mapping Processes In The Chain

- It may take a number of sessions to complete a full and accurate process map
- Other items to consider when generating the map
  - □ How far the product travels
  - □ How long it waits
  - □ How often it is handled
- How many steps add value – A value added process step…
  - □ Physically changes the product or service
  - □ Done right the 1st time
  - □ The customer is willing to pay for the outcome of the process step
- All non value-added steps are waste!

- Identify those process steps that add value
- What is the value added content as a % of the total process steps
- Are there any obvious improvement opportunities
- Finally – validate the map by 'walking the process' from end back to start
  - Some processes that add no value (such as loading raw material) may be necessary in order to complete a VA step. These we call Necessary non value added steps (NNVA)
  - The remaining steps are therefore Non value added. Whenever possible they should be challenged…..
    - ◻ Can they be removed, replaced or combined with other steps?
    - ◻ Please note that inspection, test, verification, validation etc, in they eyes of the customer are Non Value Added steps!

Identifying Waste

- As mentioned, waste is all work that is not value-added. A value added process step is defined as
  - ◻ Physically changing the product or service
  - ◻ Is done 'right-first-time'
  - ◻ The customer is willing to pay for the outcome of the process step
- Where might we have waste?
  - ◻ Clutter and mess
  - ◻ Long set up times
  - ◻ Machinery breakdowns
  - ◻ Under utilized employees
  - ◻ Transportation
  - ◻ Wasted movement
  - ◻ Making more than we can sell = inventory
  - ◻ Making it better than it needs to be = over processing
  - ◻ Poor quality

Issues and Opportunities

When you have identified processes and challenges occurring in the chain, you can produce a list of issues that hamper your business performance, and opportunities for addressing each constructively.

Example: The Perfect Pineapple – Issues and Opportunities

Issues	Opportunities
Too many growers	Consider rationalizing the grower base with fewer, larger grower farms with better timing, quality, and scale economies
Growing a tropical crop in a sub-tropical climate is affecting cost, quality, Brix levels, and timing	Consider relocating some production to tropical climate and /or source from tropical climate
Very poor ability to plan farm production to meet processing requirements	Review contracts to aim at aligning supply to requirements
Pricing structure to growers reflects Brix acid ration requirements for unsweetened pineapple packs	Review marketing strategy regarding sweetened requirements
High cost supply chain opens up risk to overseas competition	Develop Quality Based Pricing system
Over-capitalized processing as a result of not aligning supply to customer requirements	Prioritize mechanization to reduce grower costs

Hines, 2006

Improvement Focus

From this series of analyses, list a series of factors that, if addressed, would result in an improvement of operations and processes along the chain. Envision what your operation would look like with these improvements in place.

Here are examples of 10 opportunities found for improving the quality and value of red meat produced by value chains analyzed as part of a UK study:

1. Reduce product variability
2. Better manage the problem of carcass balance
3. Improve product quality
4. Streamline administration
5. Reduce handling and movement
6. Improve layout
7. Optimize the use of equipment and inputs
8. Reduce the number of physical faults
9. Improve staff productivity
10. Reduce damage and shrinkage

List up to 10 opportunities that, if addressed, may improve the quality and value of a particular product produced by a value chain to which you either currently belong or wish to belong:

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

b. Governance

Everything described to this point has largely been about establishing the processes and systems that can together enable the chain to be managed successfully. This includes the ability to quickly identify potential areas of concern and address such effectively if they arise. As you will see from all the case studies, effective governance plays a critical role in maintaining a successful chain. A lack of governance will guarantee that the chain fails. The basis upon which your initiative should be governed is established through the series of protocols surrounding performance expectations and limitations.

Governance is as much about ensuring the economic viability of a value chain as it is about gaining and maintaining the commitment of suitable partners, while purging unsuitable participants from the chain to maintain long-term effectiveness.

The most important factor in governance is that one person needs to take the overall lead and ultimately be accountable for ensuring the chain adheres to pre-agreed performance criteria. That leader will need to be completely impartial and NEVER allow decisions to be based on who is concerned, particularly in terms of quality. All successful chains have strong leaders who hold everyone (including themselves) accountable. The same systems and protocols need to be adhered to, regardless of whose products or performance is in question. Only by following this approach will an embryonic initiative develop into a successful chain that survives the rigour of the commercial environment.

Governance will include the types of contracts that each partner in the chain has with others. While the exact type of contract used by differentiated marketing initiatives varies greatly, in general, they will stipulate:

a. Period of time over which the contract extends;
b. The type of genetics to be used;
c. Production practices to be adhered to;
d. Quality requirements;
e. Pricing determinants;
f. If appropriate, the relationship between the contracted agent and the conditions under which they can use the brand or trademark associated with the initiative;
g. Where the agent can market their hogs;
h. Terms under which the contract may be annulled.

Contracts may incorporate a conflict resolution clause stating on what premise a third party arbitrator might be called to resolve a conflict that the group is unable to settle by itself.

As Sandy Purdie mentioned in the Prairie Berry case study, contracts may also outline a process for dissolving the initiative should the parties decide that they cannot continue working together. Given that many chains pass through a pretty tumultuous period during the early stages of their development, having disengagement criteria in place can actually encourage the participants to work all that much harder and be committed to the initiative, simply because they know that no nasty surprises await them should they be forced to concede defeat.

Factors of Successful Governance

Including the basis upon which they must be formed for greatest success

- Identify an economically viable proposition
  - Based on a proven market opportunity
- Effective leadership
  - Guides and motivates personnel, and enforces governance
- Commitment
  - Senior management
  - Middle management
  - Shop floor
- Written goals
  - Specific, informed, time orientated
- Objectives
  - Market driven
- Procedures
  - Designed to foster continual improvement
- Performance measures
  - Monitoring process
  - Feedback process
  - Incentives
- Trust
  - Crucial to address opportunistic tendencies
- Respect
  - Gained through actions taken and knowledge shared
- Transparency
  - Developed through information exchanged
- Motivation
  - Enabled through appreciation, accountability and responsibility at a team level

c. ***Financial Management***

This section describes financial management that must underlie a value chain network. Value Chain Management requires a process of self examination within the firm, followed by a process of information sharing and collaboration with like-minded suppliers, processors, marketers and distributors. This quest for operational effectiveness is essentially a quest to identify, expand and exploit any competitive advantages that might exist and to identify, minimize or eliminate any competitive disadvantage that might exist. The process starts with the examination of the "value chain" of the individual firm, and then expands to other firms in the "value network".

Planning for the value chain and planning for financial management are similar. Set strategic goals, gather the right information then set your financial goals or targets. Develop financial planning habits much like you would set operational plans or best management practices.

The reality check is to undertake on a regular basis is to compare actual expense/revenue with your budget projections. That's right – set a budget which should be a basic business planning objective. A simplistic method to determine financial health of your operation is to look at the key indicators which are: monthly profit and loss statements, monthly aged payable and receivables and inventory volume.

A first step in setting financial goals is to undertake a self assessment and to confirm the following observations:

- In assessing the value chain, one of the critical success factors is identifying a link between managing your position in the value chain and being a sound financial manager.

What are the principles of sound financial management that you feel are critical to success?

- Understanding financial performance measures includes identifying performance benchmarks. Use financial information to understand cost of production, margin, price indicators and value.

Can you create a short list of direct and indirect cost of production items for your contribution to the chain?

- Identifying good financial stewardship practices for measuring and monitoring the economic viability of operations from a cost and value creation standpoint

What price indicators and value measurement criteria would you use as a reference?

Financial management is the process of identifying the critical success factors to comprehend the finances of an individual business that operates as part of a value chain alliance.

List the critical success factors that translate to added value or differentiation?

- Value chain participants should identify information and monitor each member of the chain in order to understand who creates and shares financial value

Measuring performance allows comparison to 'better practices' (benchmarking), as well as the rate of improvement toward the better practice. Why is sharing financial information important in a value chain relationship?

Value Chain participants must be prepared when meeting with their potential lender(s). As a starting point, below is a list of questions that a customer and lender must be ready to answer:

Lender Questions:

1. What is your background in this sector?

2. How will the loan be repaid?

3. What security is available for the request?

4. What is the fallback in case of product failure or loss?

5. Who are your suppliers that impact production?

Customer Questions to the Lender:

1. Why do you need all this information?

2. How quick can we have the funds?

3. Why do you need security?

4. Why do we need a due date for the loan?

5. How is the interest calculated? If I am late is there a penalty?

Developing and analyzing financial statements

Financial statements are the output of financial accounting and for most businesses involve three components:

- A balance sheet which focuses on assets and liabilities and equity (or net worth);
- A cash flow budget which focuses on the income and expenses of a business – and their timing, and;
- A summary of the income and expenses is called an Income Statement.

As a member of the value chain, the financial stability of suppliers is critical to your success. As a supplier within the chain, your buyer will be interested in how long our have been in business, who are you customers, what volumes can be supplied, and what percentage will this be of the capacity.

Buyers are concerned that suppliers be financially viable, that there is no interruption of supply since your product could create brand loyalty with the buyer's customers – interruption of supply means a financial loss for supplier and buyer plus additional cost for product replacement.

How can the supply chain members benefit from the use of accurate financial assessment tools and financial business management?

Allocating fixed costs as part of the process of determining the cost of production for each product

The first step that has to be taken to establish the price of a product or service is to determine the cost of production. It should be relatively easy to establish the variable costs – that is the cost of the inputs that go into the production of each product. In farming operation the variable costs of growing a particular crop would include the cost of seed, fertilizer, chemicals, fuel, repairs and custom work. Allocating fixed costs requires good record keeping but to some extent it requires some educated guessing on the part of the manager.

Analyze and determine credit needs

Determining future credit needs requires an excellent understanding of the operational requirements of a business as well as the cash flow. It is also a healthy practice to communicate the firm's future financing needs to their lenders so that there are no surprises and so that the lender retains its faith in management. An analysis of cash flow will determine the operating credit needs of the firm over the period that is being budgeted for.

Knowledge of credit history and ratings

Managers should have a very clear understanding of the basis under which lending and credit decisions are made. Today, many institutions use credit scoring to make decisions. Initially this was used in consumer lending but it is now a part of commercial and agricultural credit decision making in most large financial institutions.

Choosing a lending institution

Firms should try to find lenders who understand their business and industry and who are committed to its success. For example, a lender who understands a particular industry will be able to design loan products that work well for this particular business. As well, should a business experience a setback that is beyond their control, lenders who understand that certain events do not necessarily increase the lenders risk are preferable to those who rigidly stand by the original intent of the financing even though the situation might be dynamic.

Identifying and managing risks

Market Risk

The challenge for some businesses in the network is that some members may have only one product and few customers. Even scarier is the potential to have one large customer. The risk of this situation is that one has few alternatives should the single customer withdraw. As well, if the single customer has the option of going to another supplier, they have a strong negotiating position.

How can market risk be managed to minimize financial impact?

Competitive Risk

The values chain network can be as susceptible to competitive risk as individual firms. A good strategic planning process will enable firms to pay attention to what competitors are doing and to anticipate their responses to certain events or actions.

What resources can be used to monitor competitive risk?

Financial Risk

There are myriad financial risks that include such things as the risk of interest rate increases. Financial risks include risks associated with significant declines in cash flow – or seasonal cash flow shortages.

What are the indicators of financial health that points to a risk within the business?

Operational Risk

Any kind of breakdown or slowdown can cause havoc to the firm's cash flow. During periods of construction or expansion, a delay in completion can also have a very detrimental effect. While the plant might be insured for business interruptions, a major disaster such as a fire or flood could upset the relationship that exists with key input providers and retailers.

What tools are available to manage operational risks?

Management Risk

The risks here are similar to those stated in the Human Resources risk section. If the plant hired the wrong person it could be a costly mistake and it could be difficult to find an experienced replacement.

Examples of risk tools to mitigate management risk are key man insurance and business interruption insurance. What are other examples?

Measuring Progress

Firms must have meaningful and accurate ways of measuring their progress, or lack of progress, toward reaching their goals. These measurements are called "metrics" and they can include financial and non-financial considerations.

Common financial metrics include financial ratio analysis. Financial ratios are calculated by using data taken from the financial statements. This information is compared to benchmark ratios for similar types of operations. If there is information available for the beginning and end of a period, or for multiple periods, a trend can be identified. If a farm business manager monitors the ratios on a regular basis, one will gain insight into how effectively farmers are managing their businesses.

Lenders and other stakeholders often evaluate risk in relation to their dealings with farmers and other business people by using several sets of ratios. It follows that the more adept the business owner or manager is at explaining and discussing his or her financial ratios with the lender, the better the lender will be able to understand the business as he or she makes a credit decision.

Ratio Analysis – A Method to Measure Business Performance

Understand the link between financial performance measures and how this can strengthen your position within chain relationships. This knowledge will give you the edge

In assessing performance we are looking for ways to evaluate the financial and economic impact of past management decisions in the areas of investment, operations, and financing.

To create the favourable cash flow required to increase shareholder value, we need positive results in all these areas.

Ratio Analysis and Performance

- ratios are useful only when we take into consideration:
- the viewpoint taken
- the objectives of the analysis

It must also be kept in mind that ratios are based on historical data from which it may be difficult to extrapolate into the future.

In addition ratios can also be less useful when looking at large consolidated businesses where the individual business lines are hidden. Accounting adjustments can also complicate the analysis.

Viewpoint

The 3 viewpoints that are the most important typically in ratio analysis are:

1) The stability of the entity,

2) Does past performance support business plan objectives,

3) To gain a better understanding of the company

Basic Types of Financial Ratios

1) Liquidity Ratios
    - measure the firm's ability to meet maturing short-term obligations

2) Leverage Ratios
    - measure the extent to which the firm has been financed by debt

3) Activity Ratios
    - measure how effectively the firm is using its resources

4) Profitability Ratios
    - measure management's overall effectiveness as shown by the returns generated on sales and investment

5) Growth Ratios
    - measure the firms ability to maintain its economic position in the growth of the economy and industry

6) Valuation ratios
    - measure the ability of management to create market values in excess of investment-cost outlays

Section 9: Final Assessment

Identify how you have modified your chain in practical terms. Begin by listing three operations that have been improved to provide additional value to the final product purchased by the consumer. *Justify your statement from the point of view of a consumer purchasing a product.*

1. ______________________________

2. ______________________________

3. ______________________________

Identify three operations that do not add value to the final product purchased by the consumer, though are necessary for the chain's operation. These might form the focus of future performance improvement endeavours. *Justify your statement from the point of view of a consumer purchasing a product.*

1. ______________________________

2. ______________________________

3. ______________________________

List five ways in which the operations of your preferred chain differ from that which currently takes place, along with the benefits that the improvements would bring your business?

1. ______________________________

2. ______________________________

3. ______________________________

Finally, identify five factors impacting your original chain, and of which you were not previously aware. Include a description of how this added knowledge enables you to better manage risk.

1. ______________________________

2. ______________________________

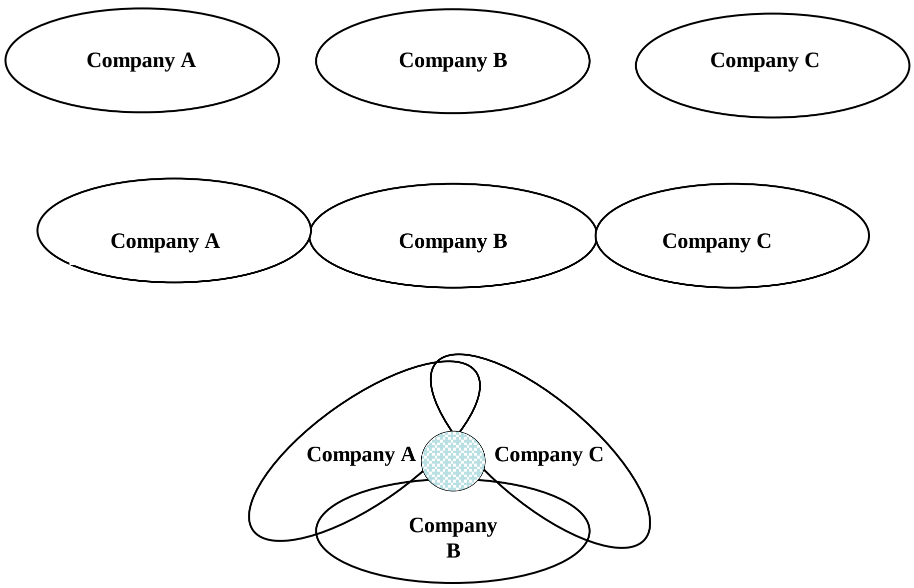
3. ______________________________

4. ______________________________

5. ______________________________

Appendix A

Descriptors of Chain Relationships



Transactional Business Relationships: Companies *'ritually sniff'* each other out when conducting specific short-term one-off business deals

Preferred Supplier Business Relationships: Dependent on the compatibility of cultures and leadership, companies *'experimentally reform'* or enter *'new norm'* business arrangements as they acknowledge the benefits of conducting medium-term business deals with chosen suppliers and buyers

Alliance-Based Business Relationships: Companies begin to engage in long-term business arrangements with companies possessing mutually-beneficial resources and capabilities, and that exhibit compatible cultures, vision and leadership. The result is superior levels of *'performance'*.

10

Trust

1

New Norm

- Question performance
- More assertive than collaborative
- Questions assumptions & values
- Questions commitment to chain
- Questions others' commitment to chain
- Review goals & strategies
- Review chain & individual performance
- Take calculated risks
- Alternative leadership styles discussed
- Talk more than listen

Perform

- Leadership determines situation
- Flexible to customer demands
- Open objective communication
- Effective interdependent boundaries
- Compatible, identified roles
- Respect & trust partners
- Committed to chain
- Take agreed risks
- Looking to learn & grow
- Concern for others

Ritual Sniffing

- Individual objectives
- Objectives poorly communicated
- Authority central driver
- Hidden agenda
- Anxiety about change (resistance)
- Poor listening
- Talks about partnering
- Weaknesses covered up
- Assumptions & mis-interpretations

Experimental Reform

- Open to change (goals & objectives)
- Looks to restructure around abilities
- Prepared to change roles
- Looks to improve work methods
- Looks to build on strengths
- Looks to address weaknesses
- Team approach
- Willingness to experiment
- Culture of listen & learn

0 Collaboration 10

Gooch, 2005: Adapted from Hind, 2005

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