

THE SUPPLY CHAIN INTEGRATION MODEL

Develop Internal Performance Measures For each of the key processes

Align Supply Chain Strategies and Key Process Objectives

Establish / Review Capabilities Marketing, Manufacturing Sourcing and Logistics Supply Chain Strategies

Identify Critical Supply Chain Trade-Off Points

Extend Process Integration to 2nd ~~tier~~ tier supply chain partners and beyond.

Assess & Improve external process integration & supply chain performance.

Develop supply chain Performance measures for each of the key processes.

Assess & Improve Internal Integration of key Supply Chain Processes

Re-evaluate annually or as required.

THE SUPPLY CHAIN INTEGRATION MODEL.

②

① Identify Critical Supply Chain Trading Partners

- For each of the focal firms products as it = NB to identify the critical key trading partners that will eventually enable the successful sale & delivery of our products to the final customer.
- As the focal firm moves out 2nd + 3rd tier customers and suppliers trading partner numbers will increase quite dramatically which will greatly complicate integration efforts.
- Depending on where within the SC the focal firm = physically located the structure of the network of primary trading partners will vary.

② Establish Review the Supply Chain Strategies

- On an annual basis, management should identify the basic strategies associated with each of the firms products.
- If a product = competing based on quality the SC members should use strategies consistent with delivering high-quality products @ competitive price & service levels.
- If a product is competing based on sustainability then the strategies & financial policies of the SC participants must be consistently aimed @ achieving favorable environmental impacts (carbon footprints) @ intermediate products or purchased, produced & moved along the SC.

THE SUPPLY CHAIN INTEGRATION MODEL

③ Aligning Supply Chain Strategies with Key Supply Chain Processes

→ 1 ce the Primary Strategy has been identified for each of the SC and products

- ① managers need to identify NB processes linking each of the SC participants, partners
- ② establish process objectives & ensure that resources + efforts are effectively deployed within each firm
2 support the end-product strategy

8 key SC Business Processes

<p>① <u>Customer Relationship Management</u></p> <p>→ • <u>Identify key customer segments</u></p> <ul style="list-style-type: none">• <u>tailoring prod + s agreements</u>2 <u>meet their needs</u>• <u>measure customer profitability</u> & <u>the firm's impact on customers</u>.	<p>⑤ <u>Manufacturing Flow Management</u></p> <p>→ • <u>Determine mfp process requirements</u></p> <ul style="list-style-type: none">2 <u>enable the right mix + velocity</u>2 <u>satisfy demand</u>
<p>② <u>Customer Service Management</u></p> <p>→ • <u>Provide info 2 customers</u> such as</p> <ul style="list-style-type: none">- <u>product availability</u>- <u>shipping dates</u>- <u>order status</u> <p>• <u>Administering prod + s agreements</u></p>	<p>⑥ <u>Supplier Relationship Management</u></p> <p>→ • <u>Managing prod + s agreements with suppliers</u></p> <ul style="list-style-type: none">• <u>Developing close working relationships</u>.
<p>③ <u>Demand Management</u></p> <p>→ • <u>Balancing customer demand with the firm's output capacity</u></p> <ul style="list-style-type: none">• <u>forecasting demand</u>• <u>coordinating with purchasers, prodn + distribution</u>	<p>⑦ <u>Product Development + Commercialisation</u></p> <p>→ • <u>Developing new products frequently</u></p> <ul style="list-style-type: none">• <u>setting them to the market effectively</u>• <u>Integrating customers & suppliers into the process</u>2 <u>reduce time</u> & 2 <u>the market</u>
<p>④ <u>Order Fulfillment</u></p> <p>→ • <u>Meeting customer requirements by synchronising the firm's</u></p> <ul style="list-style-type: none">- <u>matching</u>- <u>prodn</u>- <u>distribution plans</u>.	<p>⑧ <u>Returns Management</u></p> <p>→ • <u>Managing</u></p> <ul style="list-style-type: none">- <u>used product disposition</u>- <u>product recall</u>- <u>packaging requirements</u>• <u>minimising future returns</u>

④ Develop Internal Performance Measures for each of the key process Effectiveness

→ Procedures + metrics must be in place 2 collect + report internal performance data for the 8 key processes.

→ ∴ Firms must build good internal performance measurement capabilities across functions

→ Performance measures should need 2 create a consistent emphasis on the overall SC strategy

- corresponding process objectives

THE SUPPLY CHAIN INTEGRATION MODEL

5 Assess + Improve Internal Integration of Key Supply Chain Processes

Successful SCM requires process coordination + collaboration

internally between the firm's functional areas as well as

externally between the firm and its trading partners.

Achieving Process Integration within the firm requires a transition from

the typical functional silos

2 1 of teamwork or cooperation across business functions

6 Develop Supply Chain Performance Measures for the Buy Processes

Firms should develop external measures to monitor the links with buying partners regarding the buy SC processes.

External performance measures should align with internal performance measures but may vary based on:

- purchases
- prodn
- distribution
- customer service

7 Assess + Improve External Process Integration in Supply Chain Performance

over time, firms eliminate poor-performing suppliers as well as unprofitable customers while

concentrating efforts on developing beneficial relationships

- Strategic alliances with their remaining suppliers + customers

Building, maintaining + strengthening these relationships

is accomplished through the use of external integration

As process integration improves among SC partners

so 2 does supply chain performance

THE SUPPLY CHAIN INTEGRATION MODEL

⑧ Extend Procure Integration

to 2nd-tier

Supply chain Partners

- As SC relationships become more trusting + mature

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⑩ the SC software used 2
link supply chain partners'
info systems evolves and
becomes widely used + relied upon

the tendency will be to integrate
procure 2 2nd-tier partners 9
beyond.

⑨ Re-evaluate the Integration Model Annually

→

In the light of dramatic & fast-paced changes occurring with the development of SC communication technologies

9

fastest changes occurring with

- new products
- new suppliers 9
- new markets

existing partners should revisit their integration model annually to

- identify changes within their supply chain 9
- assess the impact these changes r having on integration efforts.

OBSTACLES TO PROCESS INTEGRATION

SUB

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OBSTACLE	DESCRIPTION	STRATEGY 2 OVERCOME.
Silo Mentality	Firms fail 2 see the bigger picture & only act in regard to a single dept within the firm a single firm within the SC.	- Firms must align SC goals & their own goals + priorities - Functional decisions must be made while considering the impact on the firms overall profits & those of SC members.
Look of Supply Chain Visibility	The inability 2 easily share / retrieve trading partner info in real time as desired by SC participants	- RFID technology can add real-time visibility capabilities 2 SC's - Cloud-based SC management: Comp's scale better ways 2 source mfg + services while maintaining the necessary info visibility
Lack of Trust	The unwillingness 2 not together / share info because of fear that the other party will take advantage of them or use the info unethically	- Start small - Collaborate on a small scale - Trade invited - Break down barriers (2) internal communication & inter-firm - Gather 'round meet face-2-face around the table - Go for the win-win - Create an environment that will optimize business for all SC members - Don't give away the store <ul style="list-style-type: none">• No one has 2 share all information• Some info should remain proprietary - Just do it <ul style="list-style-type: none">• Share info = the best way 2 build trust

OBSTACLES TO PROCESS INTEGRATION

OBSTACLE

Lack of knowledge

DESCRIPTION

Lack of process + information system skills
 a lack of knowledge regarding the benefits of SCM among ~~managers~~ ^{managers} & other employees, within the firm & among partners

STRATEGIES TO OVERCOME

→ Training of SC partner employees
 brown on collaborative education will result in

- more successful SC's
- higher partner returns

Q1015) covering the Bullwhip Effect.

(a) Demand forecast updating

→ Users varying customer orders & create & update

- forecasts
- product schedules
- purchase requirements

→ Buyer should make actual demand data available to suppliers.

→ Reduce lead time from order & delivery.

(b) Order Batching

→ Making large orders for goods from suppliers on an infrequent basis & reduce

- order
- transit costs

→ Increase visibility & use of more frequent + smaller order sizes will reduce the order batching problem.

(c) Price Purchases

→ Offering price discounts to buyers covers erratic buying patterns

→ Eliminate price discounting among SC members

(d) Returns + Shareage Gains

→ Allocating start product supplies to buyers

buyers & increase future orders beyond what they really need

→ Sellers should allocate start supplies based on the demand histories from of its customers

MANAGING SUPPLY CHAIN RISK & SECURITY

ACTIVITIES USED TO MANAGE SC RISK

- Increase safe stocks & forward buying
- Identify backup suppliers & logistics services
- Identify the supply base
- Utilize a SC IT System
- Develop a formal Risk Management Program
- Can be costly & should only be viewed as temporary solutions
- Simple strategy for guaranteeing continuous supply of purchased items + logistics services
- Can create ill will with current partners
- Requires additional time + relationship building
- Rates the use of suppliers from geographically dispersed markets
- minimize the impacts of disruptions
- SC IT Systems or used to collect a store info with SC partners
- used to help mitigate risk
- a formal risk management program helps to identify potential disruptions & the appropriate response

MANAGING SUPPLY CHAIN RISK AND SECURITY



Managing Supply Chain Security

LEVEL OF SECURITY SYSTEM RESPONSE

Description

Basic Initiatives

- The most basic level security systems should include procedures + policies
- Security offices
- IT Dept
- Warehouses and other physical facilities
- and special private security

- Personnel
- Computing systems
- Foreign Suppliers

Reactive Initiatives

Reactive Security initiatives represent initiative

- larger security orgs
- C-TRIP cooperative
- supply base analysis
- supply continuity plan

Proactive Initiatives

Include:

- Director of security
- Personnel with military or govt experience
- advanced computing security
- Formal security risk assessment

Advanced Initiatives

Include:

- Customer / supplier collaboration
- Learning from the past
- Formal security strategy
- emergency control centre