Chapter 8 - Strengthening Business-to-Business Relationships via Supply Chain and Customer Relationship Management

Supply chain management (SCM) systems supporting business-to-business (B2B) transactions, customer relationship management (CRM) systems promote sales and long-term customer relationships.
Supply Chain Management

• Describe supply chain management systems and how they help to improve interorganizational business processes.

Customer Relationship Management

• Describe customer relationship management systems and how they help to improve the activities involved in promoting and selling products to customers as well as providing customer service and nourishing long-term relationships.
Supply Chain Management

• Describe supply chain management systems and how they help to improve interorganizational business processes.

Customer Relationship Management

• Describe customer relationship management systems and how they help to improve the activities involved in promoting and selling products to customers as well as providing customer service and nourishing long-term relationships.
What Is a Supply Chain?

• A collection of companies and processes involved in moving a product from the suppliers of raw materials to the suppliers of intermediate components, then to final production, and, ultimately, to the customer

• Referred to as a “chain” as one supplier feeds into the next, then the next, then the next

• A “network” is more accurate because businesses have multiple suppliers, who have multiple suppliers
A Typical Supply Network
Business-to-Business Electronic Commerce: Exchanging Data in Supply Networks

• Business-to-Business (B2B) Electronic commerce
  – 90% of all EC in the United States
  – Involve Proprietary Information
  – Originally facilitated using Electronic Data Interchange (EDI) prior to the Internet
  – Now suppliers use Web-based EDI protocols
  – Companies also use Extranets (Chapter 3), Portals and Marketplaces to facilitate B2B EC
• Portals
  – Supplier Portals
  – Customer Portals
B2B Marketplaces

• Link many supplies and customers together
• Allow smaller businesses to participate in the markets
• Many focused on Vertical Markets
  – A Vertical Market is a market within an industry sector
  – Highly efficient
• Some more general – Alibaba.com
Managing Complex Supply Networks
Benefits of Effectively Managing Supply Chains

• Just-in-Time Production
  – Inventory delivered just as it is needed
  – Minimizes stock and handling costs
  – Reduces obsolescence charges

• Vendor-Managed Inventory
  – Vendors track usage and replenish supplies
  – Reduces procurement and inventory replenishment costs
Supply Chain Pitfalls & Considerations

• The Bullwhip Effect
• Corporate Social Responsibility
  – Product Recalls
  – Sustainable Business Practices
SCM Architecture

• Supply Chain Planning
• Supply Chain Execution
• Supply Chain Visibility and Analytics
Supply Chain Planning (SCP)

- SCP involves multiple SCM tools and modules working together to meet business needs and customer demand.

<table>
<thead>
<tr>
<th>Supply Chain Planning</th>
<th>Supplier</th>
<th>Production</th>
<th>Distribution</th>
<th>Customer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Demand Planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and Forecasting</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Distribution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Production Planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Inventory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and Safety Stock</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stock Planning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Copyright ©2014 Pearson Education
Supply Chain Execution (SCE)

- SCE focuses on the efficient and effective flow of materials, information, and financial transactions.

<table>
<thead>
<tr>
<th>Supply Chain Execution</th>
<th>Supplier</th>
<th>Production</th>
<th>Distribution</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Flow</td>
<td>Raw Materials</td>
<td>Manufactured Product</td>
<td>Product Inventory</td>
<td>Product</td>
</tr>
<tr>
<td>Information Flow</td>
<td>Delivery Status, Updates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial Flow</td>
<td></td>
<td></td>
<td></td>
<td>Payments</td>
</tr>
</tbody>
</table>
Supply Chain Visibility and Analytics

• Supply chain visibility
  – Product Tracking
  – Anticipating adverse impacts
    • Weather impacts
    • Labor negotiations

• Supply chain analytics
  – Monitoring SC Performance
  – Identifying problem spots
Supply Chain Visibility and Analytics
## SCM Modules

<table>
<thead>
<tr>
<th>SCM Module</th>
<th>Key Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand planning and forecasting</td>
<td>Forecast and plan anticipated demand</td>
</tr>
<tr>
<td>Safety stock planning</td>
<td>Assign optimal safety and target stock levels</td>
</tr>
<tr>
<td>Distribution planning</td>
<td>Optimize the allocation of available supply</td>
</tr>
<tr>
<td>Supply network collaboration</td>
<td>Work with partners across the supply network</td>
</tr>
<tr>
<td>Materials management</td>
<td>Ensure production materials are available</td>
</tr>
<tr>
<td>Manufacturing execution</td>
<td>Support production processes</td>
</tr>
<tr>
<td>Order promising</td>
<td>Provide answers to customer queries</td>
</tr>
<tr>
<td>Transportation execution</td>
<td>Manage logistics</td>
</tr>
<tr>
<td>Warehouse management</td>
<td>Support receiving, storing, and picking of goods</td>
</tr>
<tr>
<td>Supply chain analytics</td>
<td>Monitor key performance indicators</td>
</tr>
</tbody>
</table>
Developing an SCM Strategy

• Tradeoffs
  – Supply Chain Efficiency
    • Minimizes cost, but increased risk of stock-outs
    • May sacrifice customer service
  – Supply Chain Effectiveness
    • Maximizes likelihood of meeting objectives
    • Increased costs associated with
      – Redundancy
      – Sticking levels
      – Cross-functionality
## Developing an SCM Strategy

<table>
<thead>
<tr>
<th>Supply Chain Strategy</th>
<th>Procurement</th>
<th>Production</th>
<th>Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>More Inventory&lt;br&gt;Multiple Inventory Sources&lt;br&gt;...</td>
<td>General Purpose Facilities&lt;br&gt;More Facilities&lt;br&gt;Higher Excess Capacity&lt;br&gt;...</td>
<td>Fast Delivery Times&lt;br&gt;More Warehouses&lt;br&gt;...</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Single Inventory Source&lt;br&gt;Less Inventory&lt;br&gt;...</td>
<td>Less Excess Capacity&lt;br&gt;Fewer Facilities&lt;br&gt;Special Purpose Facilities&lt;br&gt;...</td>
<td>Fewer Warehouses&lt;br&gt;Longer Delivery Times&lt;br&gt;...</td>
</tr>
</tbody>
</table>
Managing B2B Financial Transactions

• B2B Financial Transactions
  – Extending credit to buyers (terms such as Net 30)
  – Payment by check (75%)

• Unknown suppliers & customers create significant fraud risk
  – Alibaba created the escrow service AliPay to reduce buyer risk
Key Technologies for Enhancing SCM

• Extensible Markup Language
  – XML, much like HTML for Web sites, creates a standard many businesses can use to help facilitate exchanging data

• Radio Frequency Identification
  – Replaces barcodes
  – As low as 10 cents
Key Technologies for Enhancing SCM: Radio Frequency Identification

Source: Albert Lozano-Nieto/Fotolia
Supply Chain Management

• Describe supply chain management systems and how they help to improve interorganizational business processes.

Customer Relationship Management

• Describe customer relationship management systems and how they help to improve the activities involved in promoting and selling products to customers as well as providing customer service and nourishing long-term relationships.
Customer Relationships

Widen
Attract New Customers

Lengthen
Keep Current Customers Satisfied

Deepen
Transform Minor Customers into Profitable Customers

Copyright ©2014 Pearson Education
### Customer Relationship Management (CRM) Benefits

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enables 24/7/365 operation</td>
<td>Web-based interfaces</td>
</tr>
<tr>
<td>Individualized service</td>
<td>Learn how each customer defines product and service quality</td>
</tr>
<tr>
<td>Improved information</td>
<td>Integrate all information for all points of contact</td>
</tr>
<tr>
<td>Speeds problem identification/resolution</td>
<td>Improved record keeping and efficient methods of capturing customer complaints</td>
</tr>
<tr>
<td>Speeds processes</td>
<td>Integrated information removes information handoffs</td>
</tr>
<tr>
<td>Improved integration</td>
<td>Information from the CRM can be integrated with other systems to streamline business processes</td>
</tr>
<tr>
<td>Improved product development</td>
<td>Tracking customer behavior over time helps to identify future product and service offerings</td>
</tr>
<tr>
<td>Improved planning</td>
<td>Provides mechanisms for managing and scheduling sales follow-ups</td>
</tr>
</tbody>
</table>
Developing a CRM Strategy

Successful CRM Strategy

- Employee Training
- Customer Service
- Data Collection, Analysis, and Sharing
- Policies and Business Processes

Putting the Customer First!
Architecture of a CRM System

**Operational CRM**
- Sales Force Automation
- Customer Service and Support
- Enterprise Marketing Management

**Analytical CRM**
- Data Warehouses
- Data Mining and Visualization
- Business Intelligence
- ERP Systems

**Collaborative CRM**
Methods and Technologies to Facilitate Communication

Customers

Sales and Marketing Managers
Operational CRM

• Sales Force Automation (SFA)
  – Supports day-to-day sales force activities
• Customer Service and Support (CSS)
  – Automates service requests, complaints, product returns, and information requests
• Enterprise Marketing Management (EMM)
  – Improves the management of promotional campaigns
Operational CRM: Sales Force Automation

<table>
<thead>
<tr>
<th>Topic</th>
<th>Potential Customer</th>
<th>Est. Close Date</th>
<th>Est. Revenue</th>
<th>Probability</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will expand their offerings to include some ...</td>
<td>Variety Store</td>
<td>10/25/2012</td>
<td>HK$150,000.00</td>
<td>75</td>
<td>Hot</td>
</tr>
<tr>
<td>Will order some items soon</td>
<td>Variety Store</td>
<td>10/26/2012</td>
<td>HK$30,000.00</td>
<td>10</td>
<td>Cold</td>
</tr>
<tr>
<td>6 orders of Product SKU JJ202</td>
<td>Basic Company</td>
<td>11/11/2012</td>
<td>HK$10,000.00</td>
<td>90</td>
<td>Hot</td>
</tr>
<tr>
<td>Needs to restock their supply of Product SK...</td>
<td>Best o' Things</td>
<td>1/8/2013</td>
<td>HK$25,000.00</td>
<td>Hot</td>
<td></td>
</tr>
<tr>
<td>Very likely will order 18 Product SKU JJ202 th...</td>
<td>Elemental Goods</td>
<td>2/11/2013</td>
<td>HK$30,000.00</td>
<td>Hot</td>
<td></td>
</tr>
<tr>
<td>They sell many of the same items that we do ...</td>
<td>Blue Company</td>
<td>3/14/2013</td>
<td>HK$26,000.00</td>
<td>95</td>
<td>Hot</td>
</tr>
<tr>
<td>Will be ordering about 110 items of all types ...</td>
<td>Litware Inc.</td>
<td>4/12/2013</td>
<td>HK$25,000.00</td>
<td>80</td>
<td>Hot</td>
</tr>
</tbody>
</table>
Operational CRM: Customer Service and Support

• Customer interaction centers (CIC) support multiple communication Channels
  – Web
    • Self-service technologies
  – Facebook
  – Industry Blogs
  – Phone
  – Face-to-Face
Operational CRM: Enterprise Marketing Management

Source: Courtesy of Microsoft, Inc.
“Analyzing customer behavior and perceptions in order to provide the business intelligence necessary to identify new opportunities and to provide superior customer service”

• Key Analytical Technologies (Chapter 6)
  – Data mining
  – Decision support
  – Other business intelligence technologies
Analytical CRM: Digital Dashboards

Source: Courtesy of Microsoft, Inc.
Analytical CRM: Identity Management

Name: John Doe
Age: 46
Address: 462 Main Street, Pullman, WA 99163
Occupation: Sales Representative
Employer: Bigorg, Inc.
Spouse: Jane Doe

Emails:
- J_Doe@bigorg.com
- johndoe@hotmail.com
- john@doe.com
- DJ2010@yahoo.com

Social media:
- facebook.com/johndoe
- twitter.com/johndoe
Collaborative CRM

“Systems for providing effective and efficient communication with the customer from the entire organization”

• Greater Customer Focus
  – Understanding customer history and current needs

• Lower Communication Barriers
  – Personnel have complete customer information
  – Personnel use customer preferred communication methods

• Increased Information Integration
  – Personnel know prior and ongoing communication
Ethical Concerns with CRM

• CRM systems may facilitate coercive sales practices
• Systems may categorize customers in a way customers take offense to
• Personalized communication may become too personal
END OF CHAPTER CONTENT
Managing in the Digital World: Supply Chain Havoc

- Supply chains now based on a global economy
- Natural disasters can have a global impact
  - 2011 monsoons in Thailand impacted global hard drive supplies, 70% of all hard drive motors are manufactured in Thailand, worldwide shortages lasted over a year
  - When part of a supply chain disrupted, there is a domino effect, impacting all downstream products
  - Highly efficient supply chains that minimize inventory can increase the risk of disruption and make the supply chains more fragile
When Things Go Wrong: Apple’s “Very Angry Birds” Disrupt App Store Supply Chain

• An Apple server inserted incorrect Digital Rights Management (DRM) code into multiple apps
• Users were then prompted to update these apps
  – Users updated apps
  – The apps all crashed on launch
  – Very angry users flooded Apple’s app store with negative review of the crashing apps
  – The apps weren’t at fault
  – Apple had to remove negative review of apps that weren’t caused by the apps
• With hundreds of millions of customers relying on Apple’s app store, when things go wrong, they can go very very wrong
Brief Case: The Formula for Success: Demand Media

• Demand Media, Inc. focuses on providing answers to common questions
  – Uses search data and auction data to identify topics with high interest
  – Demand Media crowdsources solutions as articles and video clips and posts them to its own sites and YouTube
  – The traffic to view the answers generates advertising revenue
  – Demand Media has created a very large content base
    • Over 45 sites with more traffic than ESPN and NBC combined
    • Publishes 4000 articles and videos a day
    • Posted over 170,000 YouTube uploads
Coming Attractions: Saving Lives through 3D Bioprinting

• 3D printing is an alternative to cutting and milling materials to create a part
  – 3D printing builds a part up, eliminating waste
  – 3D printing is now very precise and accurate
• 3D printing now moving into the world of medicine
  – At Wake Forest University, new skin is being printed directly onto burn wounds of US Troops from Afghanistan
  – 3D printing may be able to create tissues drug companies can use to rapidly eliminate drugs with side effects, reducing the cost of drug development
  – 3D printing may one day be able to print entire human organs from a recipient’s own cells, eliminating both organ shortages and organ rejection
Key Players: Salesforce.com

- CRM software is becoming key to business success
  - Critical for most medium to large organizations
  - Becoming a necessity for many small businesses
  - Small business often don’t have the infrastructure to host complete CRM solutions

- Salesforce.com hosts a CRM in an online cloud
  - Applications for Sales, Service, and Collaboration
  - External developers can add additional functionality
  - Small businesses can use the features they need from any online computer and many mobile devices
Who’s Going Mobile: The Power of Mobile CRM

• In many organizations, the sales staff is often in the field
  – Mobile CRM allows staff to use CRM features on the road
  – The best mobile CRM has all the functionality of desktop CRM
  – Mobile CRM promotes efficiency and effectiveness, with many benefits
    • Increased revenue growth and customer renewals
    • Larger deal size
    • Increased user adoption and higher quota attainment
    • Lower sales force turnover
  – CRM, including mobile CRM, spending is increasing faster than any other application software investment
Ethical Dilemma: CRM: Targeting or Discriminating?

- CRM systems allow companies to send targeted offers to select customers
- Benefits include less advertising to uninterested parties
- Fine segmentation may allow companies to take advantage of population groups
- Some companies also sell data, without user knowledge or consent, at times in violation of their own stated practices
- Often these practices are legal, but are they ethical?
Industry Analysis: Manufacturing

• Computer-aided Design (CAD)
  – Facilitates drawing, design, sharing, and collaboration
  – CAD design prototypes can be printed on 3D printers
• Computer-aided Engineering (CAE)
  – Test designs from CAD systems to refine before prototypes are made
• Computer-aided Manufacturing (CAM)
  – Controls the production of the final product
  – Uses the output of CAD systems
  – Also manages inventory, scheduling, and warehouses
This work is protected by United States copyright laws and is provided solely for the use of instructors in teaching their courses and assessing student learning. Dissemination or sale of any part of this work (including on the World Wide Web) will destroy the integrity of the work and is not permitted. The work and materials from it should never be made available to students except by instructors using the accompanying text in their classes. All recipients of this work are expected to abide by these restrictions and to honor the intended pedagogical purposes and the needs of other instructors who rely on these materials.