

Supply Chain Execution	Supplier	Production	Distribution	Consumption
Product Flow	Raw Materials	Manufactured Product	Product Inventory	Product
Information Flow	Delivery Status, Updates			
Financial Flow				Payments



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

Supply chain management (SCM) systems support business-to-business (B2B) transactions; customer relationship management (CRM) systems promote sales and long-term customer relationships

Chapter 8 Learning Objectives



Supply Chain Management

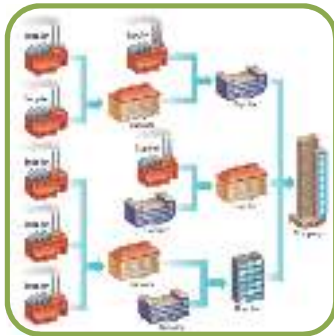
- Describe supply chain management systems and how they help to improve business-to-business processes.



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



Supply Chain Management

- Describe supply chain management systems and how they help to improve business-to-business processes



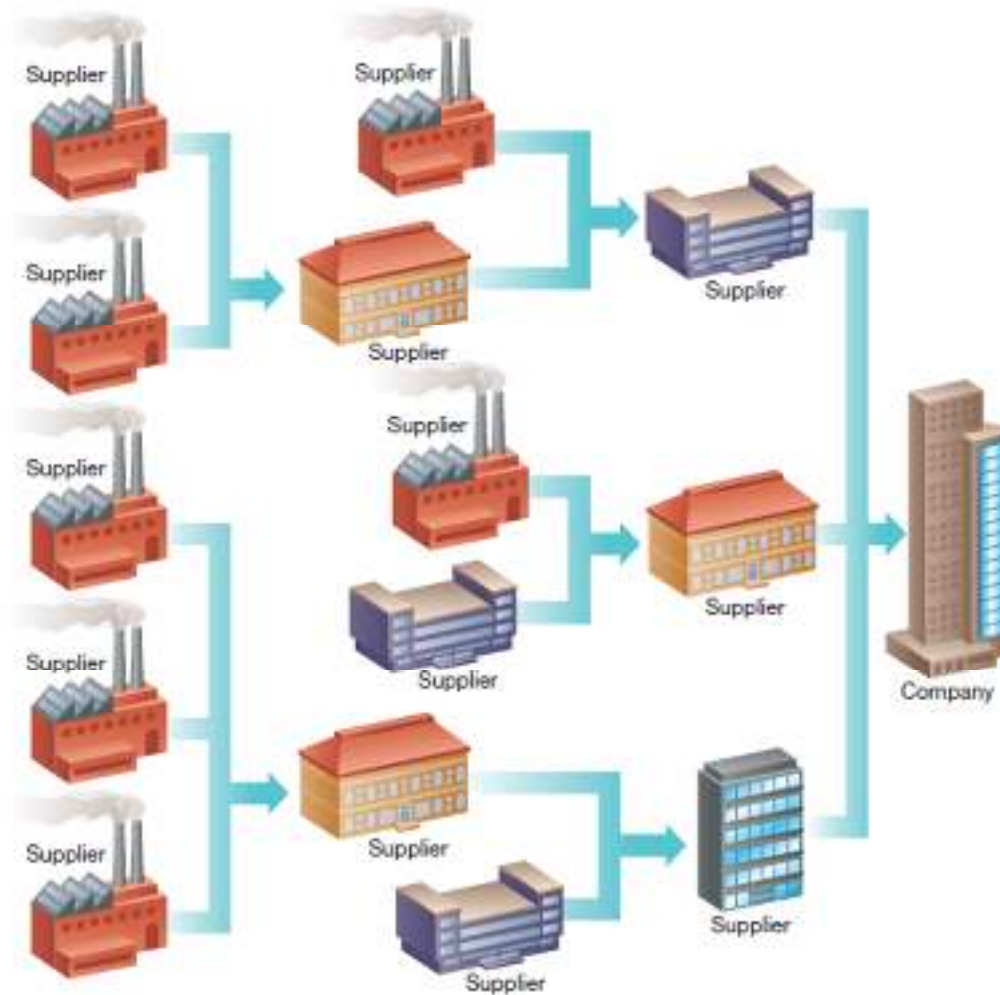
Customer Relationship Management

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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

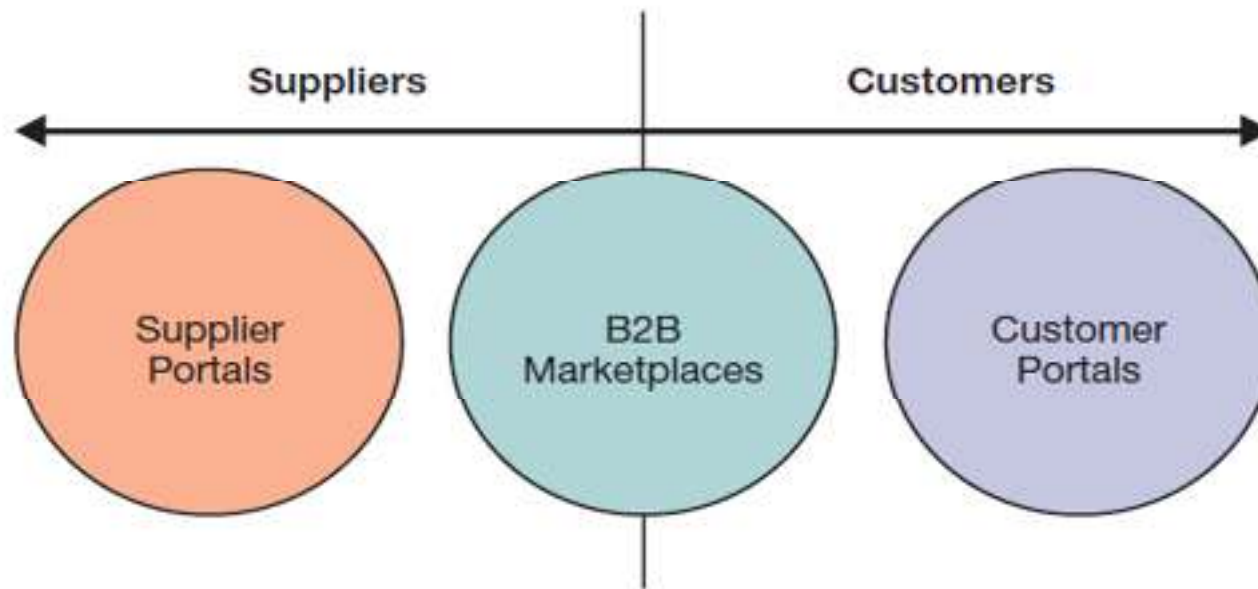


Business-to-Business Electronic Commerce: Exchanging Data in Supply Networks

- 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

Business-to-Business Electronic Commerce: Exchanging Data in Supply Networks

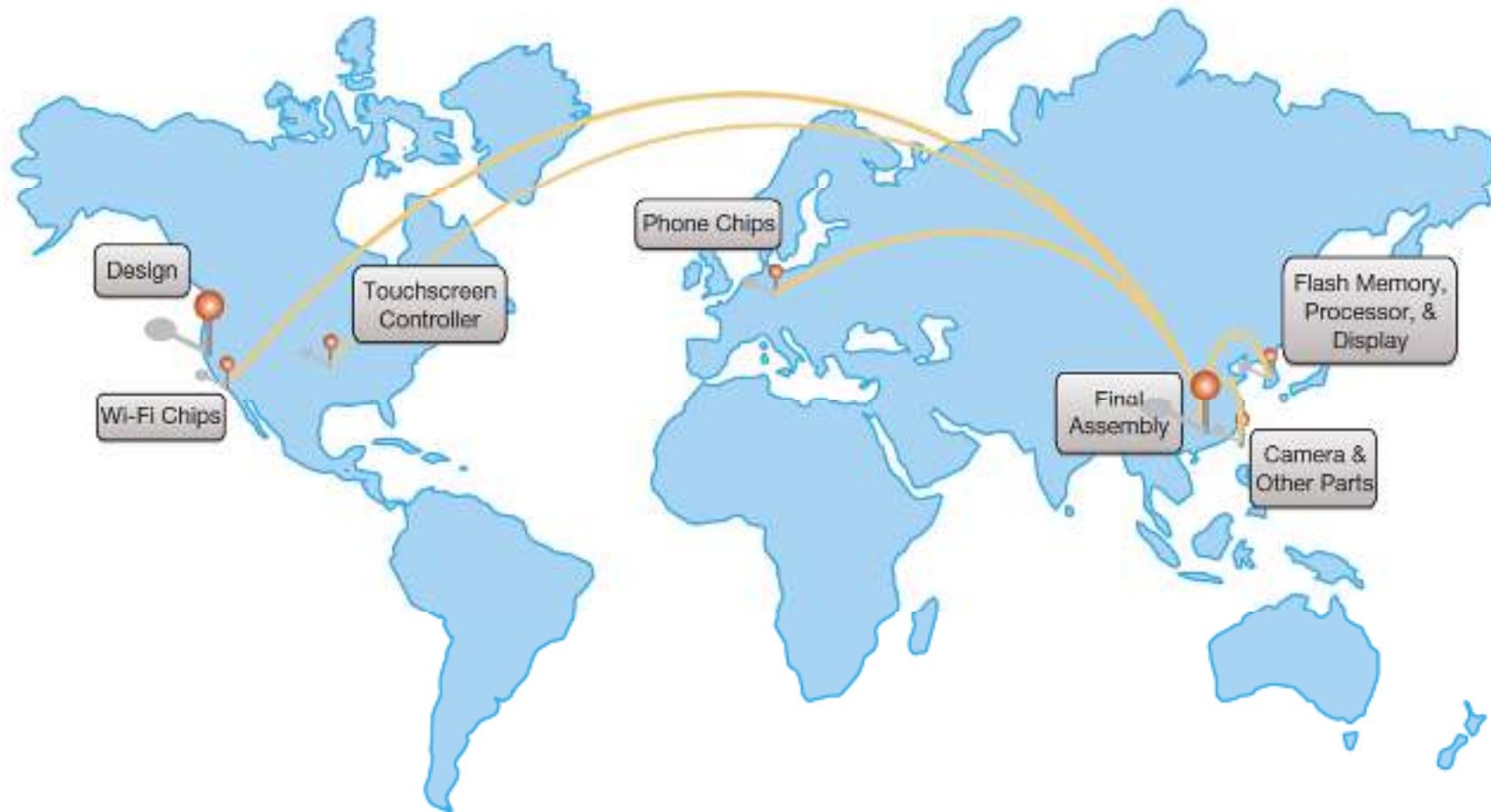
- Portals
 - Supplier Portals
 - Customer Portals



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

Benefits of Effectively Managing Supply Chains

- Reducing the Bullwhip Effect
 - Ripple effects due to forecast errors
 - Coordinated supply chain helps mitigate this
- Corporate Social Responsibility
 - Product recalls
 - Sustainable business practices

Optimizing the Supply Chain Through SCM

- **Supply Chain Management (SCM)**
 - Supply Chain Planning
 - Supply Chain Execution
 - Supply Chain Visibility and Analytics

Functions that Optimize the Supply Network





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

Source: Based on <http://www.sap.com>.

Developing an SCM Strategy

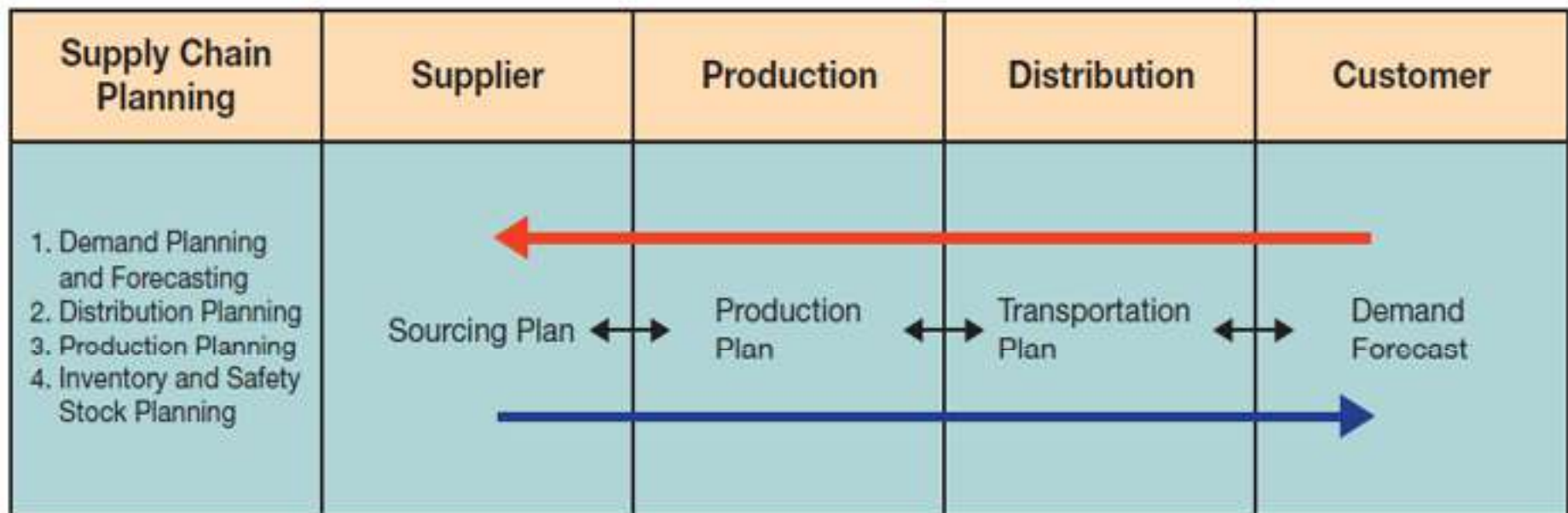
- Trade-offs
 - Supply Chain Efficiency
 - Minimizes cost, but increased risk of stock-outs
 - May sacrifice customer service
 - Supply Chain Effectiveness
 - Maximizes likelihood of meeting objectives
 - Increased costs associated with
 - Redundancy
 - Sticking levels
 - Cross-functionality

Developing an SCM Strategy

Supply Chain Strategy	Procurement	Production	Transportation
<p>Effectiveness</p>  <p>Efficiency</p>	<p>More Inventory Multiple Inventory Sources ...</p>  <p>...</p> <p>Single Inventory Source Less Inventory</p>	<p>General-Purpose Facilities More Facilities Higher Excess Capacity ...</p>  <p>...</p> <p>Less Excess Capacity Fewer Facilities Special-Purpose Facilities</p>	<p>Fast Delivery Times More Warehouses ...</p>  <p>...</p> <p>Fewer Warehouses Longer Delivery Times</p>

Supply Chain Planning (SCP)

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



SCP Processes

- Demand Planning and Forecasting
 - Based on historical data, build a demand forecast
- Distribution Planning
 - How to move products to distributors, transportation planning
- Production Scheduling
 - Coordinate product/service creation, production plan
- Inventory and Safety Stock Planning
 - Developing inventory estimates, determine optimal inventory levels, sourcing plan

Supply Chain Execution (SCE)

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

Supply Chain Execution	Supplier	Production	Distribution	Consumption
Product Flow	Raw Materials	Manufactured Product	Product Inventory	Product
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SCE Flows

- **Product Flow**
 - Movement of goods from supplier to production to distribution to consumer
 - RFID is an important enabling technology
- **Information Flow**
 - Movement of information through supply chain (e.g., order processing and delivery status updates)
 - XML is an important enabling technology
- **Financial Flow**
 - Movement of financial assets through supply chain
 - Payment schedules, consignment, ownership
 - Linkages to electronic banking and financial institutions

Key Technologies for Enhancing SCM

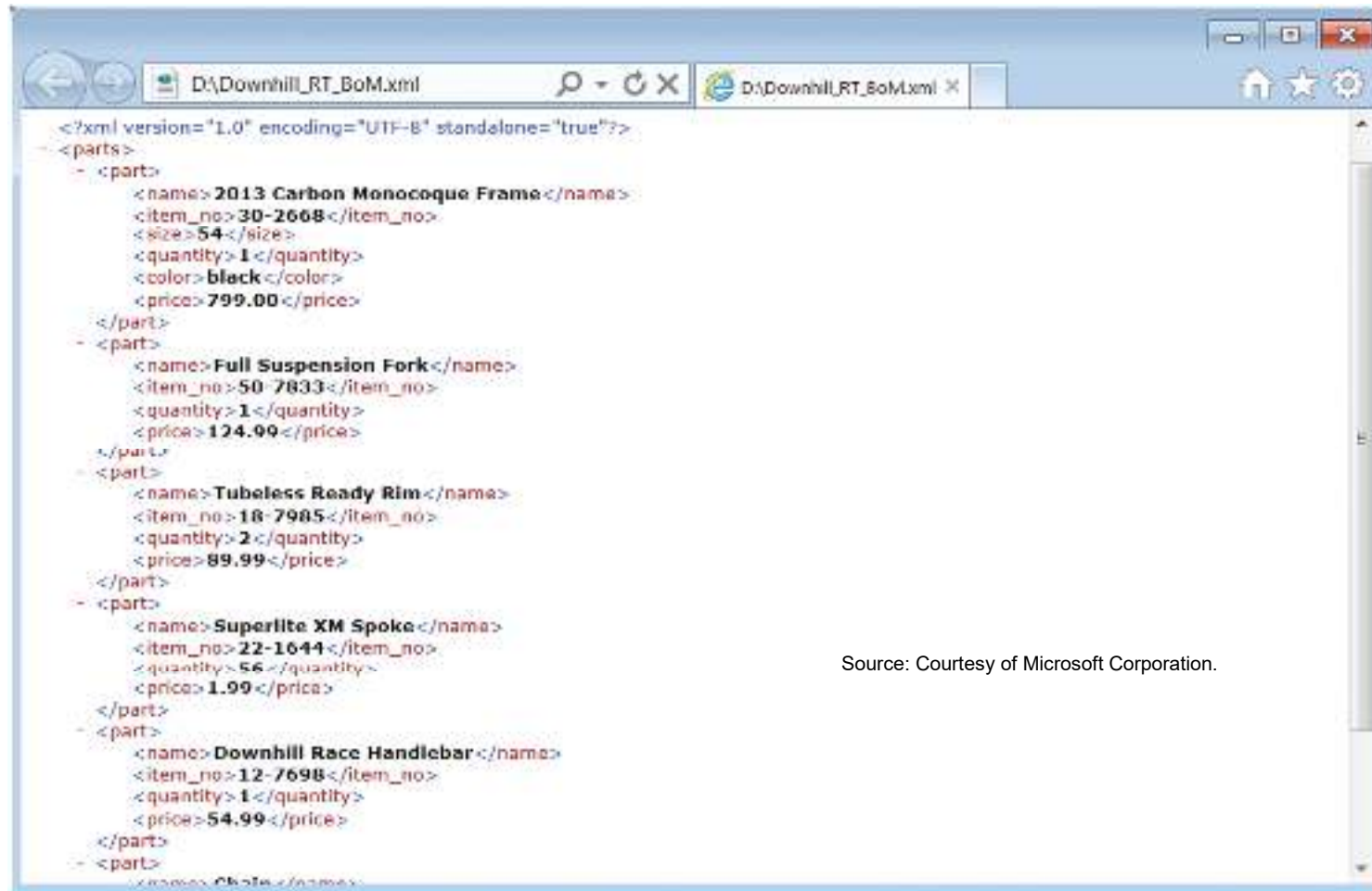
- Radio Frequency Identification (RFID)
 - Replaces bar codes
 - As low as 10 cents
- Extensible Markup Language
 - XML, much like HTML for Web sites, creates a standard many businesses can use to help facilitate data exchange

Key Technologies for Enhancing SCM: Radio Frequency Identification



Source: Albert Lozano-Nieto/Fotolia

Key Technologies for Enhancing SCM: Extensible Markup Language



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```

Source: Courtesy of Microsoft Corporation.

Managing B2B Financial Transactions

- B2B Financial Transactions
 - B2C often uses e-payments such as PayPal
 - But B2C still primarily uses payment by check (75%)
 - Others: purchasing cards, letters of credit, Western union
- Unknown suppliers and customers create significant fraud risk

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

Customer Relationship Management



Supply Chain Management

- Describe supply chain management systems and how they help to improve business-to-business processes



Customer Relationship Management

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Customer Relationships



Widen
Attract New Customers



Lengthen
Keep Current
Customers Satisfied

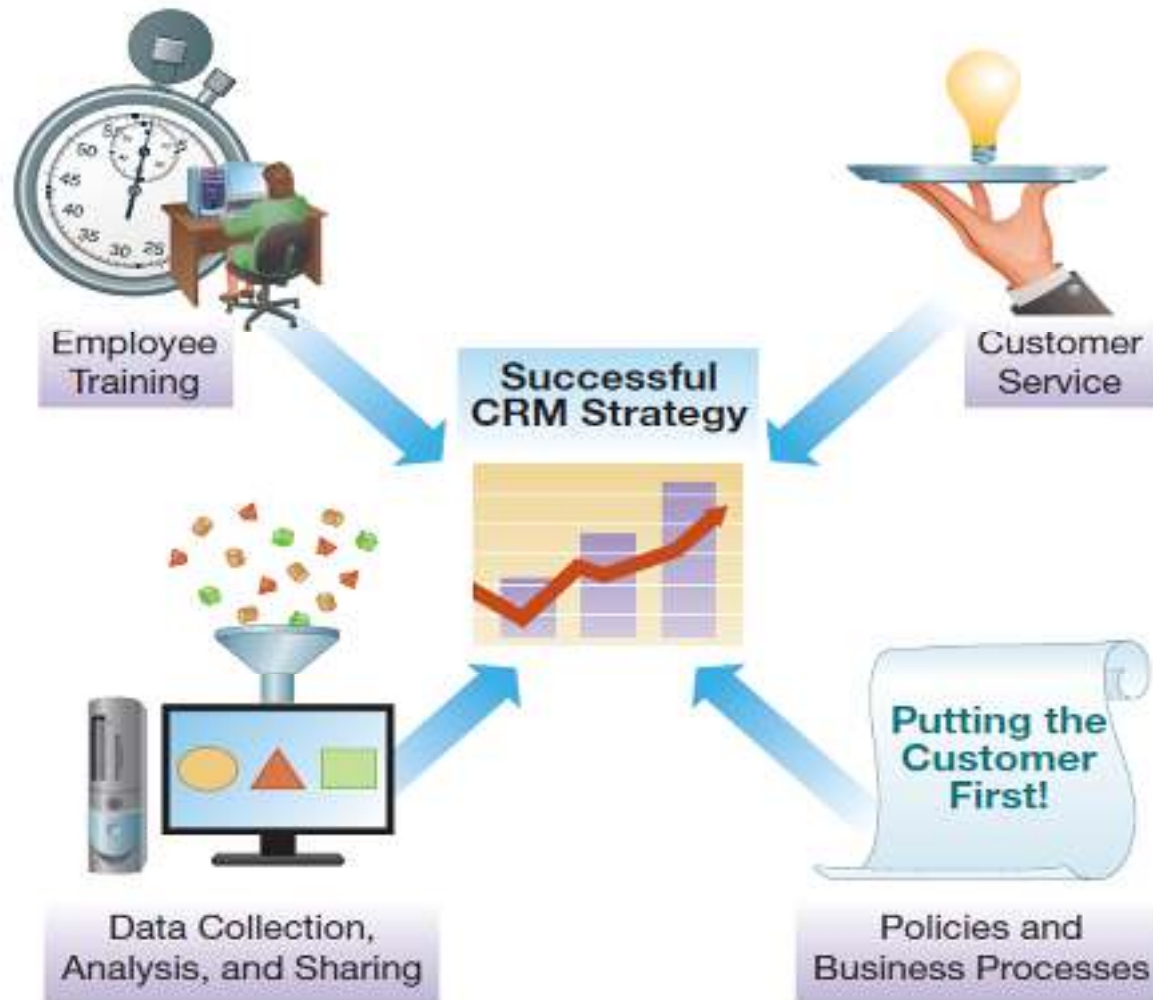


Deepen
Transform Minor
Customers into
Profitable Customers

Customer Relationship Management (CRM) Benefits

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

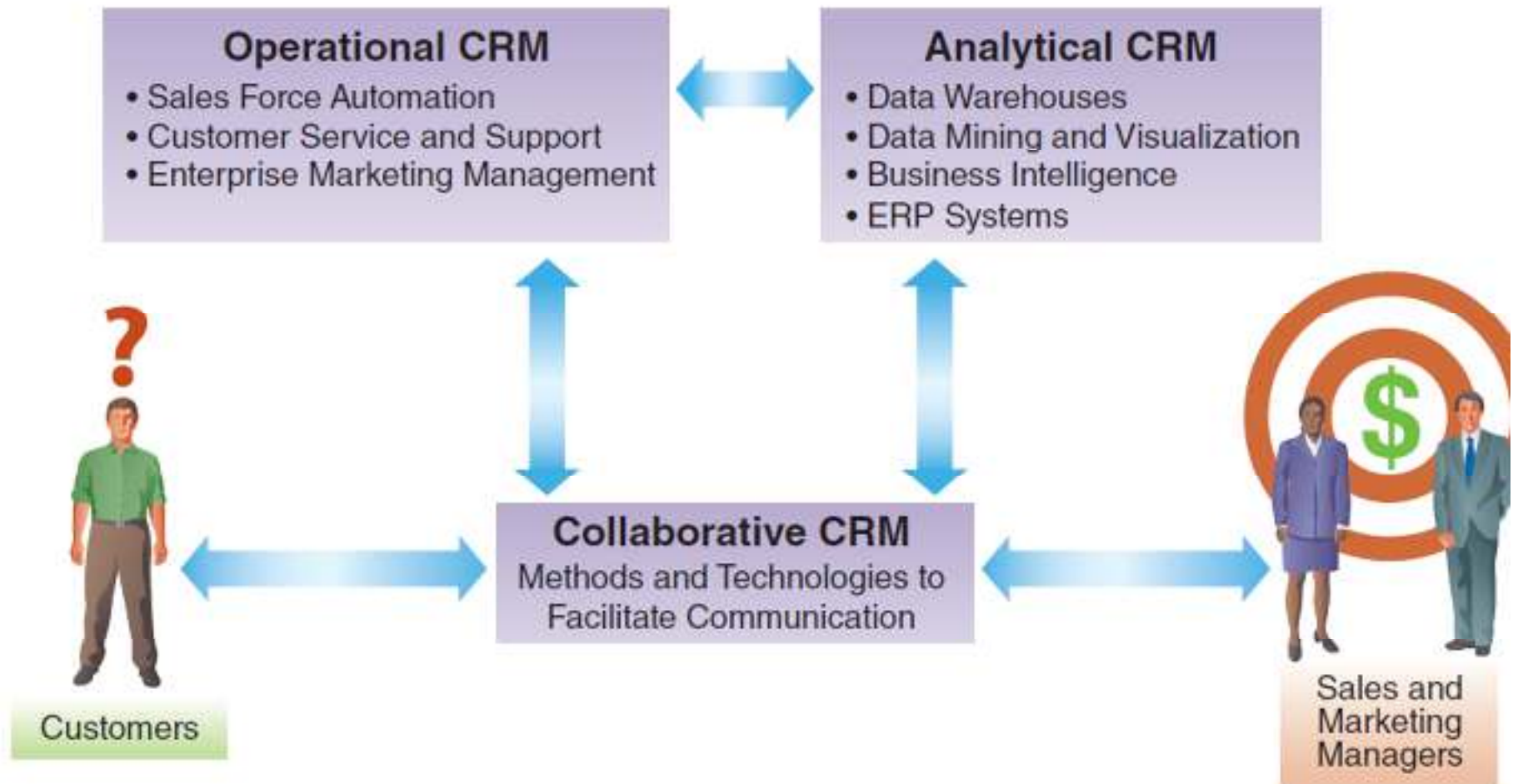
Developing a CRM Strategy



Key Elements of a CRM Strategy

- **Policies and Business Processes**
 - Reflect a customer-focused culture
- **Customer Service**
 - Quality, satisfaction, enhanced customer experience
- **Employee Training**
 - For employees from all areas
- **Data Collection, Analysis, and Sharing**
 - Track all aspects of the customer experience

Architecture of a CRM System



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

The screenshot displays the Microsoft Dynamics CRM interface. The browser address bar shows the URL <https://bigorg.crm5.dynamics.com/>. The user is logged in as Christoph Schneider, CityU, with a sign-out option. The main navigation pane on the left includes sections for Sales, Workplace, Sales, Marketing, Service, Settings, and Resource Center. The 'Opportunities' section is active, showing a list of 'My Open Opportunities'. The table below contains the following data:

Topic	Potential Customer	Est. Close Date	Est. Revenue	Probability	Rating
Will expand their offerings to include some ...	Variety Store	10/25/2014	HK\$150,000.00	75	Hot
Will order some items soon	Variety Store	10/26/2014	HK\$30,000.00	10	Cold
6 orders of Product SKU JJ202	Basic Company	11/11/2014	HK\$10,000.00	90	Hot
Needs to restock their supply of Product SK...	Best o' Things	1/8/2015	HK\$25,000.00		Hot
Very likely will order 18 Product SKU JJ202 th...	Elemental Goods	2/11/2015	HK\$30,000.00		Hot
They sell many of the same items that we do ...	Blue Company	3/14/2015	HK\$26,000.00	95	Hot
Will be ordering about 110 items of all types...	Hardware Inc.	4/17/2015	HK\$25,000.00	80	Hot

The interface also shows a search bar for records, a 'Click here to view the chart.' button on the right, and a footer indicating '1 - / of / 0 selected' and 'Page 1'.

Source: Courtesy of Microsoft Corporation.

Operational CRM: Customer Service and Support

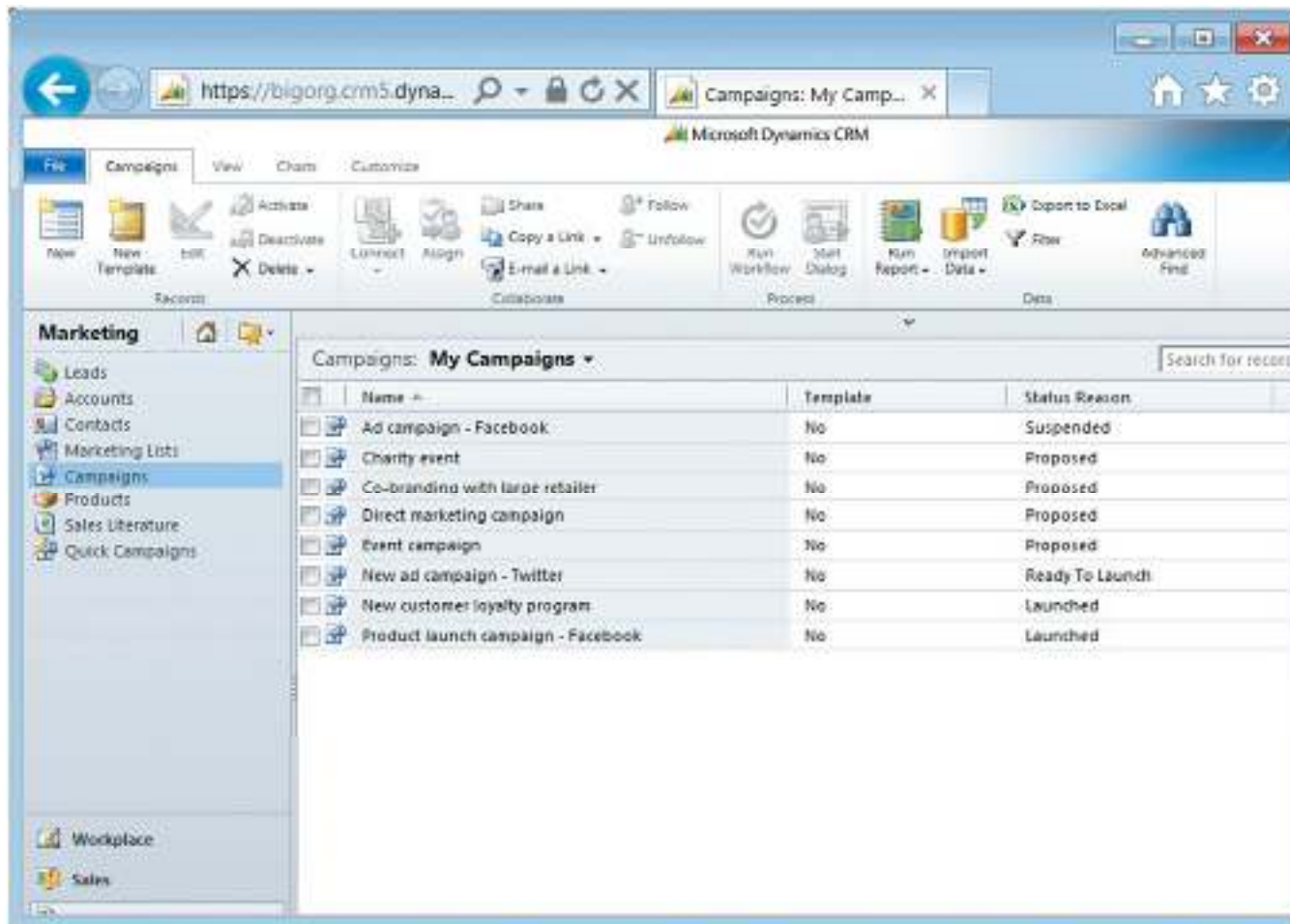
- Customer interaction centers (CIC) support multiple communication channels
 - Evolved from help desks and call centers
 - Phone—automatic call distribution systems, virtual hold technologies
 - Web—self-service technologies
 - Facebook
 - Industry blogs
 - Face-to-face

Operational CRM: Customer Service and Support

A CEC allows customers to use a variety of self-service and assisted technologies to interact with the organization



Operational CRM: Enterprise Marketing Management



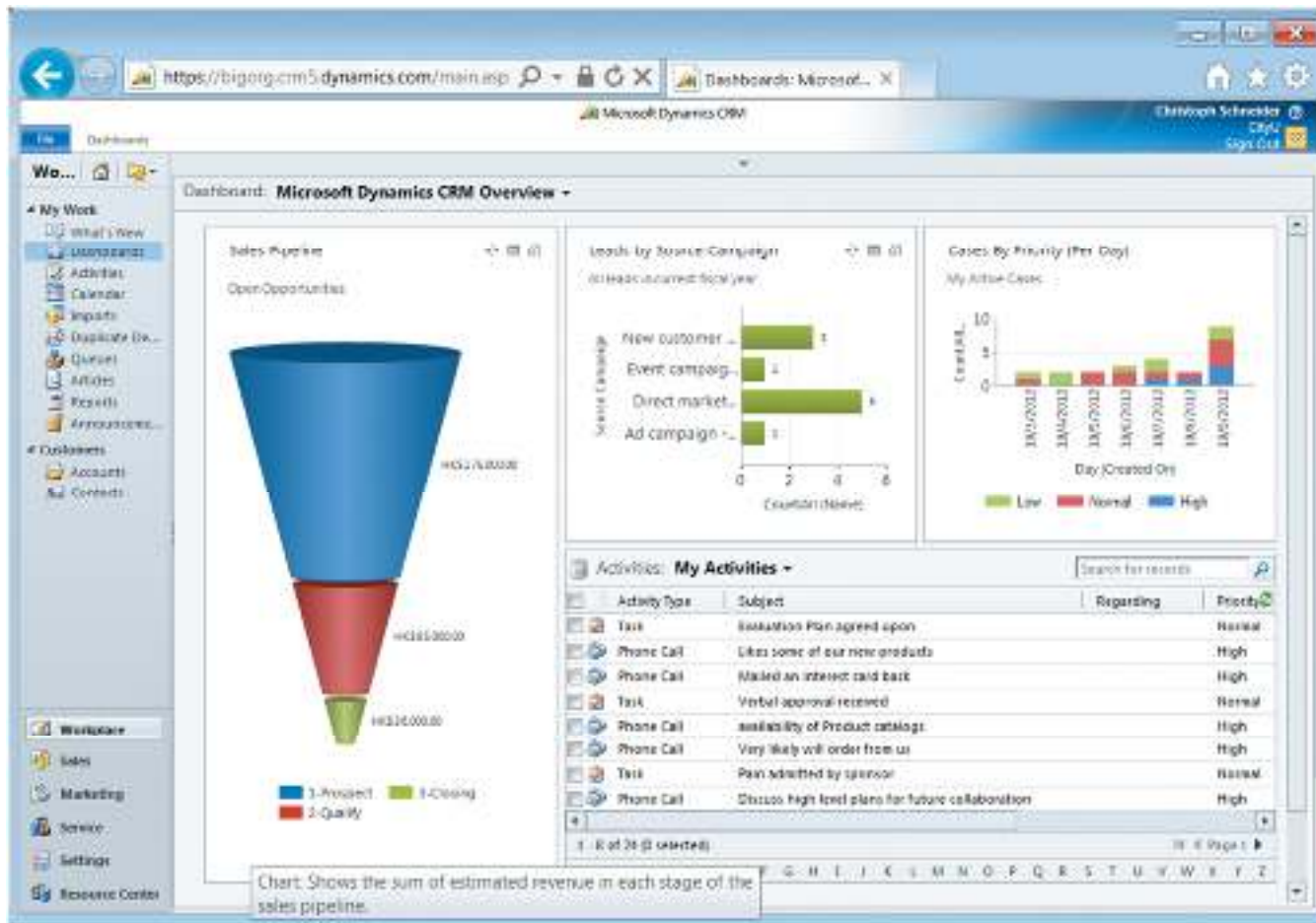
Source: Courtesy of Microsoft, Inc.

Analytical CRM

“Analyzing customer behavior and perceptions in order to provide the business intelligence necessary to identify new opportunities and to provide superior customer service”

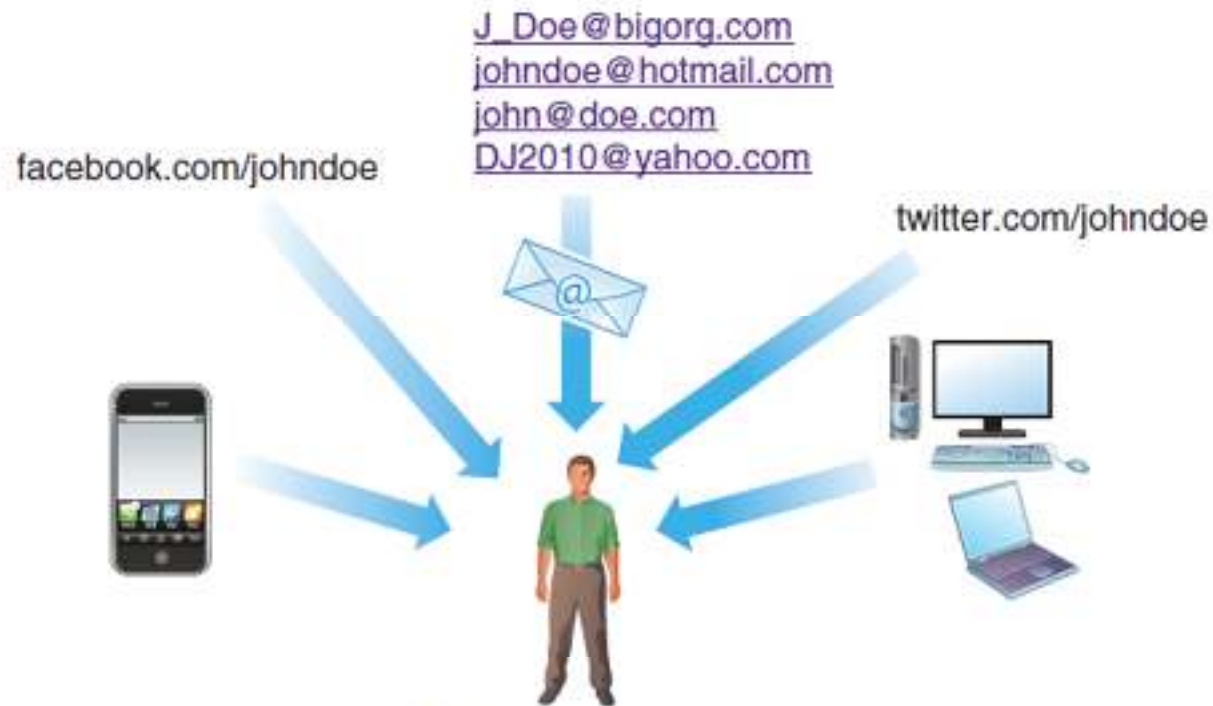
- Key Analytical Technologies (Chapter 6)
 - Data mining
 - Decision support
 - Other business intelligence technologies

Analytical CRM: Digital Dashboards



Source: Courtesy of Microsoft, Inc.

Analytical CRM: Online Identities



Social CRM

- Customers use Facebook and Twitter to comment on products and services
- Monitoring social media conversations helps to understand public perceptions
- Analytical CRM applications
 - Microsoft's Social Networking Accelerator
 - Google Alerts
 - Dell's Social Media Listening Command Center

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: Walmart

- Walmart is known for cutting costs and prices
- Effective use of technology for supply chain
- Vendor-managed inventory
 - Suppliers monitor inventory in Walmart's warehouses
 - Cross-docking: direct transfers from inbound to outbound truck trailers
- Powerful CRM capabilities

When Things Go Wrong: Switching Switches—Failure at a Global Scale

- Supply chains are increasingly global
- Failure to carefully monitor partnerships can lead to expensive product recalls
- Example: GM's faulty ignition switches took 10 years to resolve
- An engineer covered up a mistake by leaving part number unchanged
- Led to difficulty identifying faulty switches

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
 - 45 sites with more traffic than ESPN and NBC combined
 - Now collaborating with Google

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
 - Researchers in the Netherlands used 3D printing to replace a patient's skull
 - A UK-based company is using 3D printing to print up to 150 prosthetic eyes an hour
 - 3D bioprinting researchers attempting to print complete organs for transplants

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 SaaS in an online cloud
 - The Sales Cloud
 - The Service Cloud
 - Chatter

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 Exploiting?

- CRM systems allow companies to look closely at customer behavior and 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
- Verizon's "Relevant Mobile Advertising" campaign monitors customers' Internet browsing habits
- 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
 - This is called “fabbing,” and speeds up creation of models
 - 3D printing adds successive layers of materials
- SCP and ERP are used for inventory planning, job scheduling, and warehouse management