# Information Systems

... Supply Chain Management

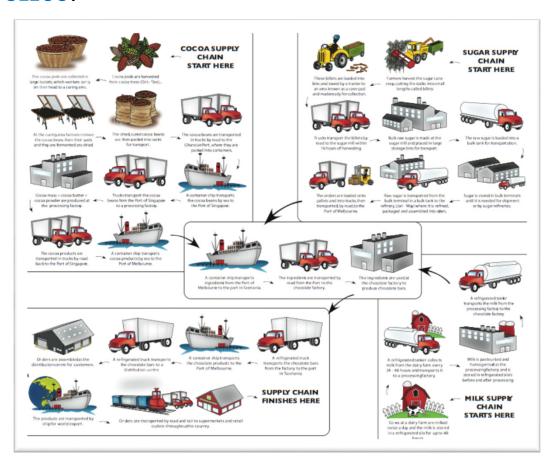
# **Supply Chain Management**

### **Tim Horton's Coffee:**

- how many people were involved?

# **Supply Chain Management**

### **Tim Horton's Coffee:**



### **Supply Chain Management**

### **Supply Chain:**

a network of organizations and facilities that transforms raw materials into products delivered to customers

Involves customers, retailers, distributors, manufacturers, suppliers, transportation companies, warehouses, inventories,

- and some means for transmitting messages and information among the organizations involved



# Business (Goal)

### **Manage costs:**

- EFFICIENT

#### **Business Process**

- Running the business
- Customer Relation (CRM)
- Supply Chain (SCM)
- Enterprise Wide Solutions

### Manage revenue:

- EFFECTIVE

#### **Competitive Strategy**

- what to sell
- who to sell to
- how to market (advertise)
- how to price product / service

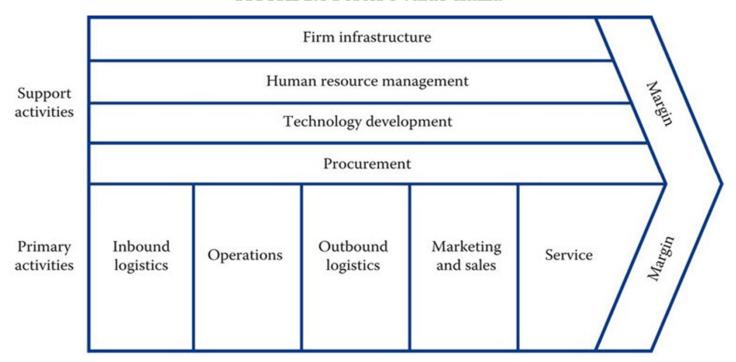
We will investigate the role of computers in these areas.

# Business (Goal)

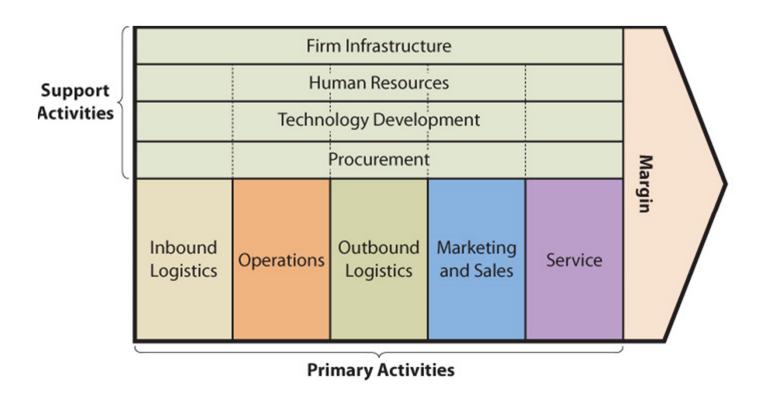
### **Manage Cost:**

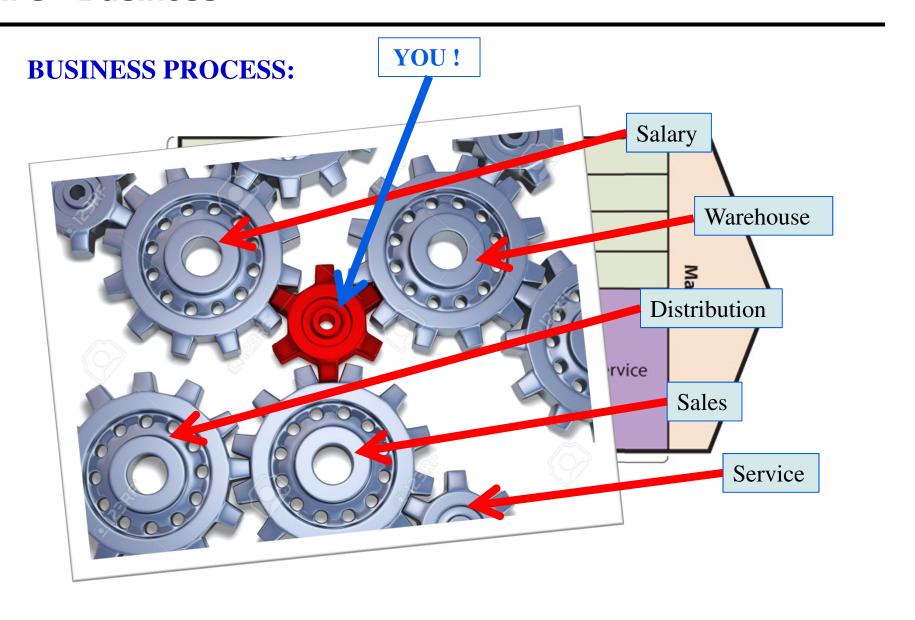
### - EFFICIENT

FIGURE 2.8 Porter's value chain.

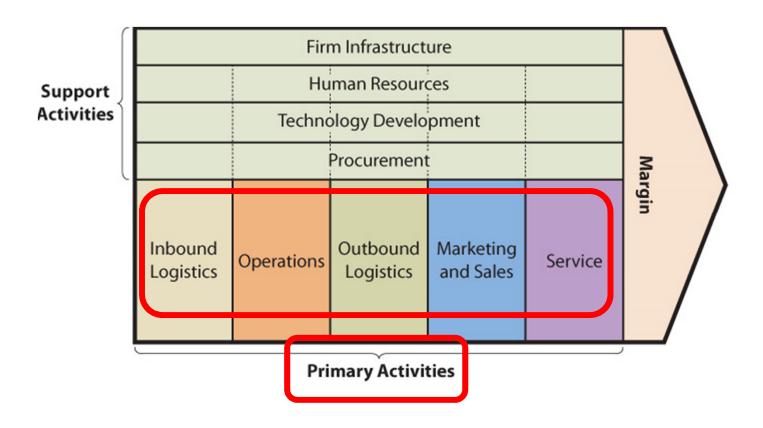


### **BUSINESS PROCESS:**

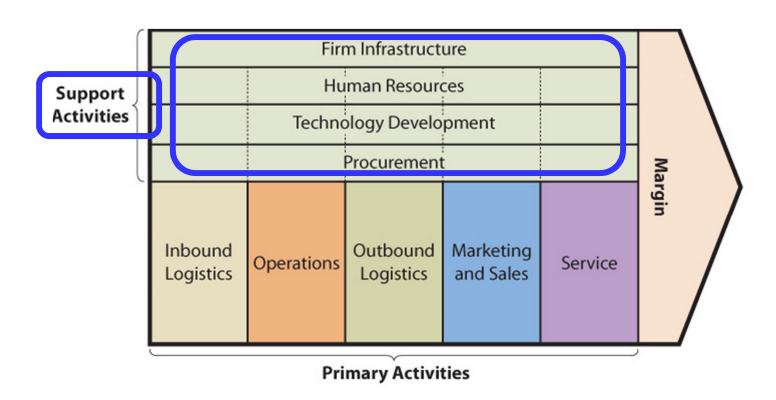




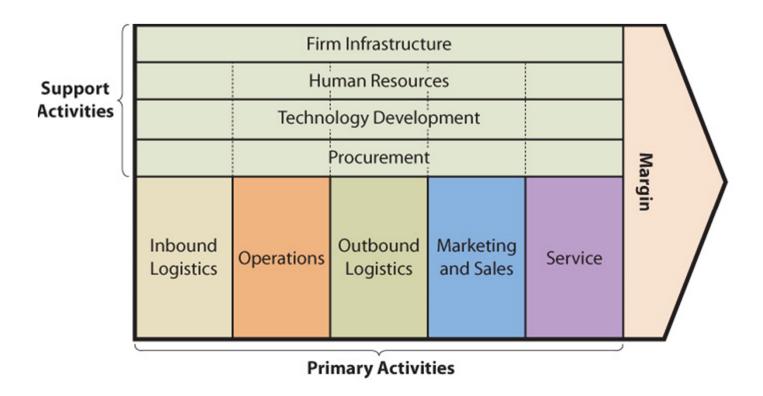
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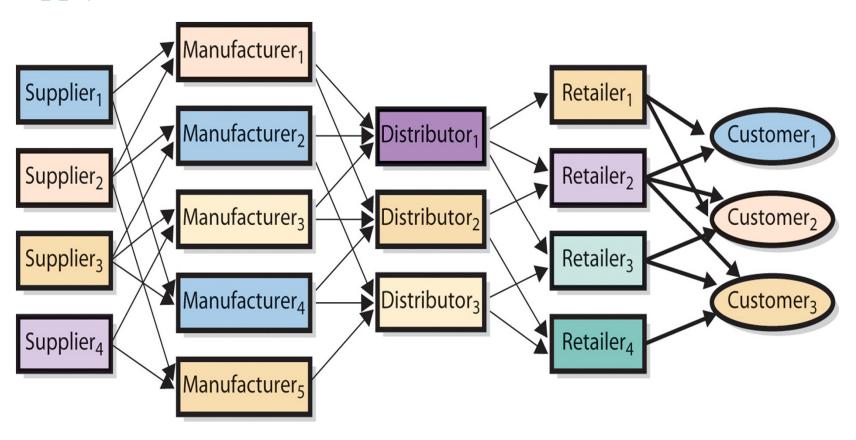
### **BUSINESS PROCESS:**



Cost \$\$\$ of **Primary Actives** + Cost \$\$\$ of **Support Activities** equal ( = ) total Cost \$\$\$ of running the **business** 

### **Supply Chain Management**

### **Supply Chain:**



### **Supply Chain Management**

### **Supply Chain Management (SCM):**

are intraorganizational systems (i.e. internal to the company)

- information can be shared externally

that enable companies to efficiently handle the flow of good from suppliers to customers

the purpose of SCM is to: match supply and demand.

When these are not matched:

- if demand exceed supply: increase production
- if production is scheduled to increase : order more raw

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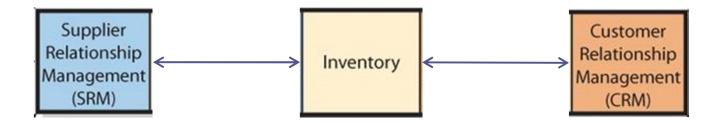
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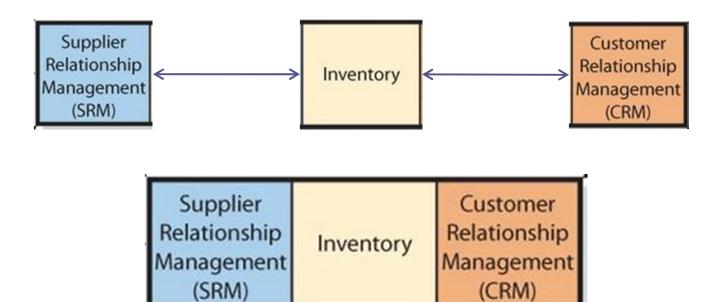
# **Putting it together**

# **Organization (company):**



### **Putting it together**

### **Organization** (company):



**Supplier Chain Management (SCM)** 

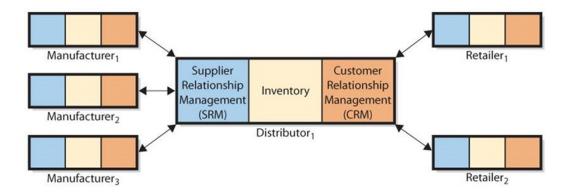
### **Supply Chain Management**

### **Supplier Chain Management (SCM):**

using Supplier Relationship Management to monitor and control raw material input

to accurately manage inventory levels

in order to optimally service customers.



### **Supply Chain Management**

### **Supplier Relationship Management (SRM):**



Business process for managing contacts between an organization and suppliers

Supplier - any organization that sells something to an organization

Customer - any organization or individual that purchase something

### Supports:

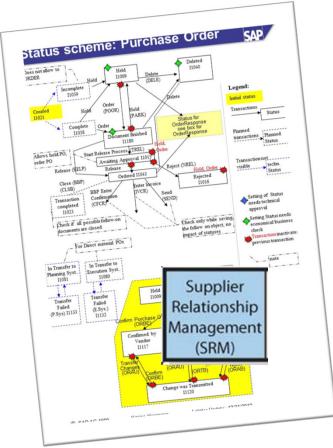
in-bound logistics primary activity and the procurement support activity

### **Supply Chain Management**

### **Supplier Relationship Management (SRM):**

key to Supplier Relationships

- schedule
- quality
- price



# Summary of SRM Processes

# Find vendors. - Assess capabilities. - Negotiate terms and conditions. - Make contract. Purchase - Request information, quotation, proposal. - Approve purchase. - Create an order. Settle - Receive goods. - Resolve receivables to order. - Pay according to terms and policy.

# Information Systems

... Connecting to the Outside World

### **Customer Relationship Management**

"nothing happens in business until someone sells something."

- any business's customer relationships are important.

Businesses that nurture these relationships benefit from repeat purchases.

Businesses that don't must find new customers

Information Systems are important to maintaining customer relationships.

Systems that have this as their main purpose are called customer relationship management (CRM) systems.

### **Customer Relationship Management**

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There are two main types of CRM:
```

### operational

used in working with customers:

contacting them

selling to them

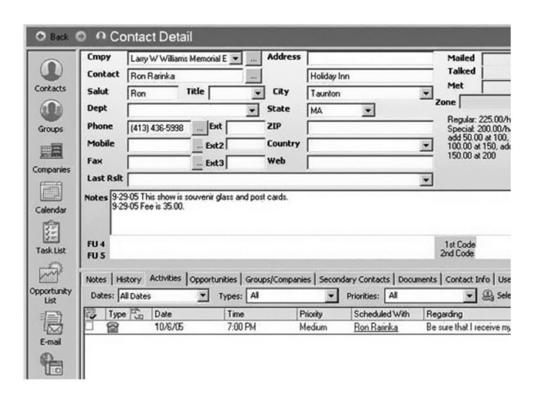
helping them use a product or service

### analytical.

is about customers as a group rather than any one customer focusing on overall information and patterns

### **Customer Relationship Management**

A basic contact management system is little more than a personal contact list.



### **Customer Relationship Management**

### **Operational CRM**:

### **Level 1: Contact Management**

must handle additional information beyond 'contacts'

Call and purchase history

Callback dates

Conversation notes

etc., and more.

Shared database makes sales contact information available to an entire sales and support team

Everyone on the team must know what everyone else is doing.

### **Customer Relationship Management**

### **Operational CRM**:

### **Level 2: Sales Management**

Sales management systems coordinate the selling process, reminding salespeople to go through the right steps in the right order and providing a variety of aids

- standard presentations boilerplate content for proposals, competitive analyses sales arguments

### **Customer Relationship Management**

### **Operational CRM**:

### **Level 3: Opportunity Management**

extends sales management earlier in the selling process by identifying new or potential customers.

can track the type of sale, the person or group responsible for it, its expected value, the probability of closing it

It can be a tool for salespeople to optimize the use of their time and for sales management to monitor the selling process overall.

### **Customer Relationship Management**

### **Operational CRM**:

### Value Added

Information systems offer a way to get back some of the personal touch.

This requires two things:

- 1. The business must be able to identify the shopper.
- 2. The business must know enough about the shopper to provide meaningful customization.

Both of these are an aspect of customer relationship management.

### **Customer Relationship Management**

# **Operational CRM:** Value Added

Tracking previous usage

- website cookies
- user login
- 'loyalty programs' rewards

Amazon recommends ...

Netflix 'because you watched Care Bares ...'

Paypal percent off next purchase ...

### **Customer Relationship Management**

### **Analytical CRM**:

about customers as a group rather than any one customer focusing on overall information and patterns.

Uses of analytical CRM include:

- Segmentation, grouping customers based on purchase
- **Personalization**: Information about customers
- Response analysis enables a company to determine the effectiveness of different marketing approaches
- Attrition analysis helps understand why customers leave to reduce future customer losses.
- Aligning supply (production) with expected demand.

### **Customer Relationship Management**

### **Analytical CRM**:

about customers as a group rather than any one customer focusing on overall information and patterns.

Customers drive business ...

use analytical CRM so the business can drive the customer.

anticipate based on turning data into meaningful knowledge

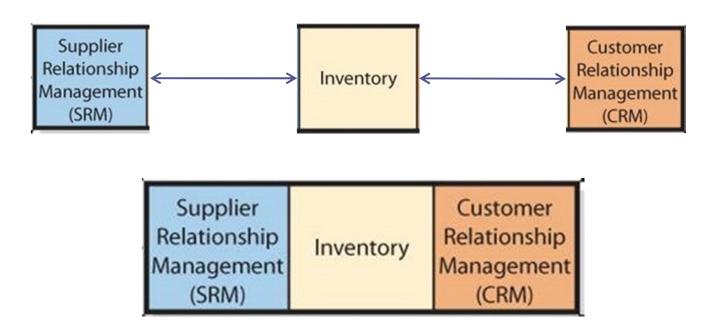
### market basket analysis:

data about items that are purchased together.

- upsale

### **Putting it together**

### **Organization** (company):



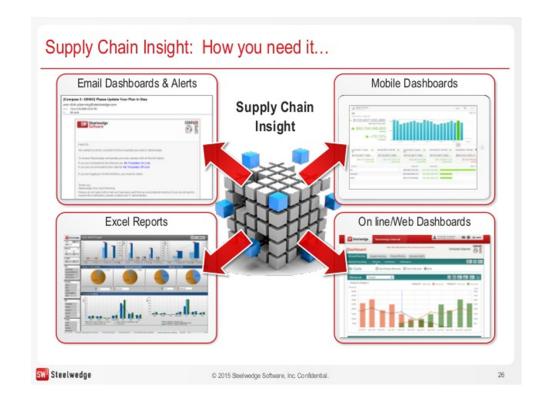
**Supplier Chain Management (SCM)** 

### **Supply Chain Management**

### **SCM Dashboard**

at checkout update the store's inventory.

SCM informs a buyer when something needs to be reordered.



### **Benefits of Supply Chain Management Information System**

Reduce costs of buying and selling

Sourcing, buying, settling faster, easier, more effective

Increase supply chain speed

Reduce size and cost of inventories improve delivery scheduling enable JIT

Fix bullwhip effect

Optimize supply chain profitability

### **Bullwhip Effect**

Variety in the size and timing of orders increases at each stage up supply chain

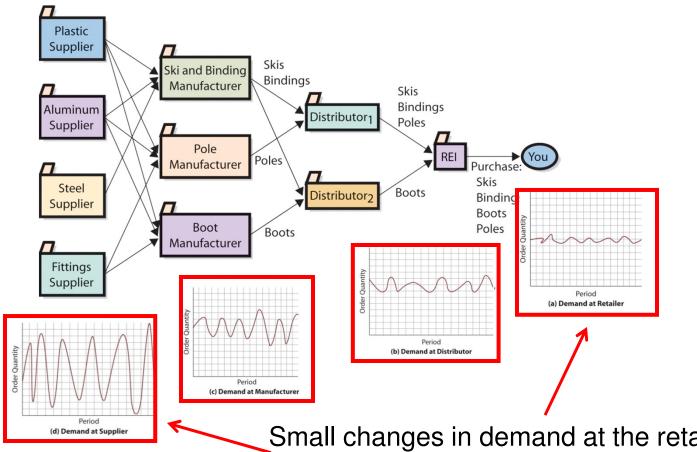
Natural dynamic of multistage supply chain

- Unrelated to erratic customer demand
- Large fluctuations force distributors, manufacturers, and suppliers to carry large inventories
- Reduces overall profitability

Eliminate effect by giving participants access to consumerdemand information

- Interorganizational information systems share data

### **Bullwhip Effect**



Small changes in demand at the retailer are amplified at each stage of the supply chain.

### Common Sense

- how can you ensure efficient AND effective.