Week 1: Introduction

MIS 3537: Internet & Supply Chains

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Introductions

Post as comments on the blog

- Name
- Major / Minor
- Recent Internships / Industry Experience

- Include at least one (1) Supply Chain you’ve dealt with and in what Role (e.g. customer, ___)
Have you ever wondered ...

- How successful companies differentiate
  - What is the reason behind WalMart’s “Everyday Low Prices”?

- Economics of supplying digital products
  - Will Netflix remain a dominant player in the DVD rental market?
  - Who are the suppliers to Apple?
Have you ever wondered ...

- Is outsourcing always good?
  - What are the challenges to outsourcing other than cost vs benefits?

- How to globalize?
  - How to compete in a global world?
  - Is your innovation process global?

..... and many more!
What this course is about?

- Competing with supply chains @ Internet speed
- Supply Chain Basics
- Impact of IT
- Innovations in supply chains
- New supply chain business models
- Ethics and ‘green’ supply chains
Practical Relevance of the Course

- **MIS Majors**
  - IT in supply chain
  - Career Opportunities

- **Non MIS majors**
  - Cost cutting
  - Innovation
  - New markets
Course formalities


Syllabus

Office Hours

Lecture slides

Group Work

Evaluations

Preparing for class
Learning Objectives

- Key concepts in supply chains
- Trends in supply chain
What is a supply chain?

Consists of

- ______________________
- ______________________
- ______________________
- ______________________
- ______________________
- ______________________
- ______________________
- ______________________
- ______________________
What is a Supply Chain?

Source: Sunil Chopra and Peter Meindl ‘Supply Chain Management’ Prentice Hall, 2006
What is a Supply Chain?

P&G or other manufacturer → Walmart or 3rd party DC → Walmart Supermarket → Customer wants Detergent -> goes to Walmart

- Plastic Producer
- Chemical manufacturer (e.g. Oil Company)
- Paper Manufacturer
- Oil and Gas Industry
- Chemical Manufacturer
- Timber Industry

Source: Sunil Chopra and Peter Meindl ‘Supply Chain Management’ Prentice Hall, 2006
What is a supply chain?

- Also known as a “logistics network”

- Consists of
  - Suppliers
  - Manufacturing centers
  - Raw materials
  - Work-in-process inventory
  - Finished products
  - Warehouses
  - Distribution centers
  - Retail Outlets
What constitutes a supply chain?

- Flow of materials (Physical flow)
- Financial Flow ($$, ownership, …)
- Flow of information
  - That’s where IT fits in
- Technology in a supply chain
  - Hardware
  - Software / Applications
  - Networking
  - Communications / Extranets / VPN
  - Processes
Supply Chain Management

- A set of approaches utilized to efficiently integrate suppliers, manufacturers, warehouses and stores

- Goals
  - To produce and distribute merchandise at right quantities, to the right locations at the right time
  - Minimize system-wide costs while satisfying system-level requirements
Supply Chain Management

- Decisions about the structure of the supply chain and what processes each stage will perform

- Strategic supply chain decisions
  - Locations and capacities of facilities
  - Products to be made or stored at various locations
  - Modes of transportation
  - Information systems

- Supply chain design must support strategic objectives

- Supply chain design decisions are often long-term and expensive to reverse – must take into account market uncertainty

Source: Sunil Chopra and Peter Meindl ‘Supply Chain Management’ Prentice Hall, 2006
Knowledge Check

- Form groups of 4-5 students and explain the following terms
  - Cycle Time
  - Process & Capacity Planning
  - Sourcing
  - Contract Manufacturing
  - Inventory Policies
  - Vendor Managed Inventory
  - Distribution Network
  - Transportation
  - Lead Time
  - Lot Sizing
  - Incentive Alignment
  - Revenue Management
  - Demand Forecasting
  - Customization
  - Push vs. Pull Supply Chains
Learning Objectives

- Key concepts in supply chains
- Trends in supply chain
Factors driving supply chain

- Information technology
- **Global** suppliers / customers / competition
  - Companies are born global
- Shorter product cycles / Clockspeed
- Customized products
- Need for collaboration
Trends in Supply Chains

- Virtualization
- Share the Supply Chain
- Collaboration
- Virtual sourcing
  - Materials and manpower
- Global Information Technology Standards
- Increased Awareness
  - Sustainability
  - Product safety
Shifts in Supply Chain Management

- **Shift 1: From Cross-Functional Integration to Cross-Enterprise**
  - *Old question:* how do we get the various functional areas of our company to work together to supply product to immediate customers?
  - *New question:* how to record and activities across companies, as well as across internal functions, to supply product to the market?

- **Shift 2: From Physical Efficiency to Market Mediation.**
  - *Old question:* how do we minimize the costs our company incurs in production and distribution of our products?
  - *New question:* how do we minimize the cost of matching supply and demand while continuing to reduce the costs of production and distribution?

- **Shift 3: From Supply Focus to Demand Focus.**
  - *Old question:* how can we improve the way we supply product in order to match supply and demand better, given the demand pattern?
  - *New question:* how can we get earlier demand information or affect the demand pattern to match supply and demand?
Next week...

- Crocs case
- The impact of the Internet on supply-chain strategies
- From the “first click” to the “last mile”
Homework...

- Form Case Groups (4-5 students)
  - Need volunteer groups to present and post answers next week

- Start following the Blog – Post

- Readings

- Crocs Case Preparation