

Supply Chain Strategy

A General View: Mission-Strategy-Tactics-Decisions

- **Mission**, Mission statement
 - » The reason for existence of an organization
- **Strategy**
 - » A plan for achieving organizational goals
- **Tactics**
 - » The actions taken to accomplish strategies
- **Operational decisions**
 - » Day to day decisions to support tactics

Ex: Life Strategy for Ted

Ted is an undergrad. He would like to have a career in business, have a good job, and earn enough income to live comfortably

<u>Mission:</u>	<u>Live a good life</u>
◆ Goal:	Successful career, good income
◆ Strategy:	Obtain a master's degree
◆ Tactics:	Select a college and a concentration
◆ Operations:	Register, buy books, take courses, study, graduate, get a job

Linking SC and Business Strategy

Competitive (Business) Strategy

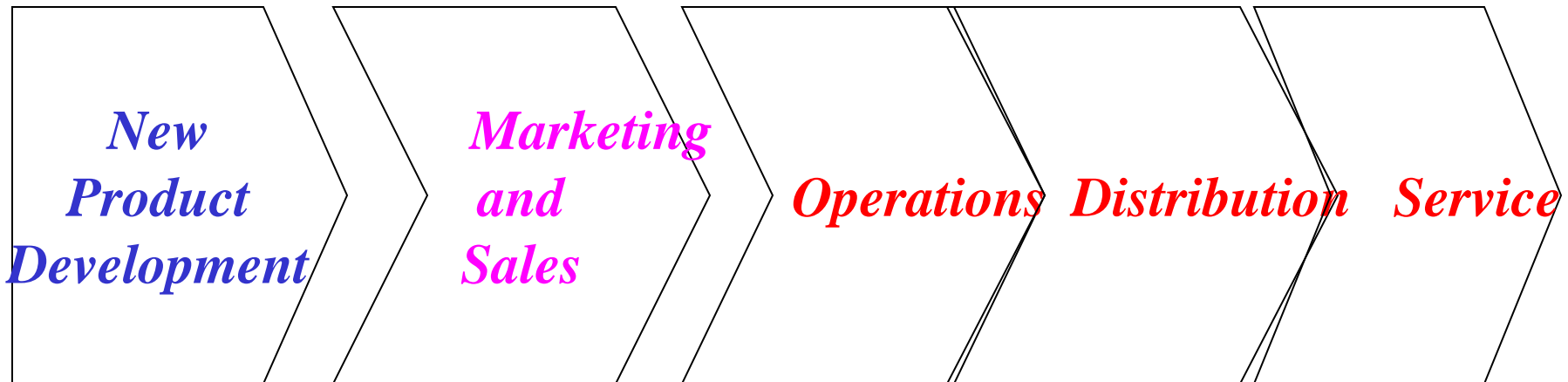
Product Development Strategy

- Portfolio of products
- Timing of product introductions

Marketing Strategy

- Frequent discounts
- Coupons

Supply Chain Strategy



Finance, Accounting, Information Technology, Human Resources

Strategies: Product Development

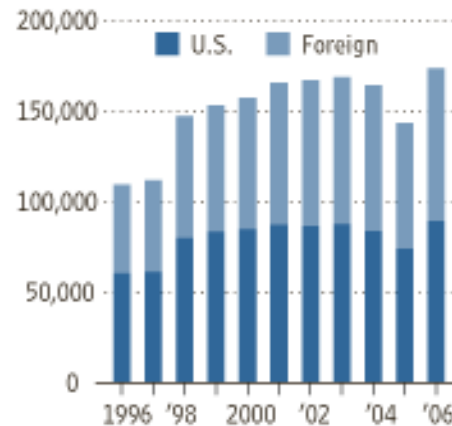
It relates to Technologies for future operations (via patents) and Set of products/services

- ◆ Be the technology leader
IBM workstations
- ◆ Offer many products
Dell computers
- ◆ Offer products for locals
Tata's Nano at \$2500=100000 rupees
Production at Singur, West Bengal, India;
1 x w x h=3.1 x 1.5 x 1.6 meters;
Top speed: 105km/hr;
Engine volume 623 cc;
Mileage 50 miles/gallon;
Annual sales target 200,000.

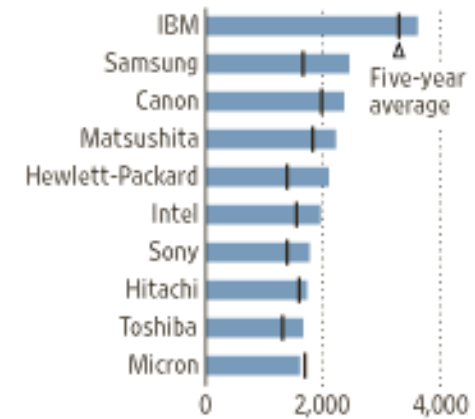
Big Ideas

Opponents of patent-overhaul legislation say it would give advantages to foreign entities, which already get nearly half of all U.S. patents

U.S. patents granted by origin



Companies with the most U.S. patent grants in 2006



Note: Data are for utility patents only (patents for inventions)

Source: U.S. Patent and Trademark Office



Strategies: Marketing and SCM

- ◆ **Marketing and sales strategy** relates to positioning, pricing and promotion of products/services
 - e.g. Never offer more than 40% discount
 - e.g. EDLP = every day low price
 - » At Wal-Mart
 - e.g. Demand smoothing via coupons
 - » BestBuy

- ◆ **Supply chain management** strategy relates to procurement, transportation, storage and delivery
 - e.g. Never use more than 1 supplier for every input
 - e.g. Never expedite orders just because they are late
 - e.g. Always use domestic suppliers within the sales season not in advance.

Fitting the SC to the customer or vice versa?

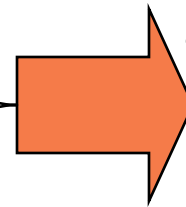
- ◆ Understand the customer **Wishes**
- ◆ Understand the **Capabilities** of your SC
- ◆ Match the **Wishes** with the **Capabilities**
- ◆ Challenge: How to meet **extensive Wishes**
with **limited Capabilities**?

Achieving Strategic Fit: Consistent SCM and Competitive strategies

◆ Fit SC to the customer

◆ Understanding the Customer

- Range of demand, pizza hut stable
- Production lot size, seasonal products
- Response time, organ transplantation
- Service level, product availability
- Product variety
- Innovation
- Accommodating poor quality



*Implied (Demand)
Uncertainty for SC*
*Implied trouble
for SC*

Contributors to Implied Demand Uncertainty

Commodities

Detergent

Long lead time steel

Customized products

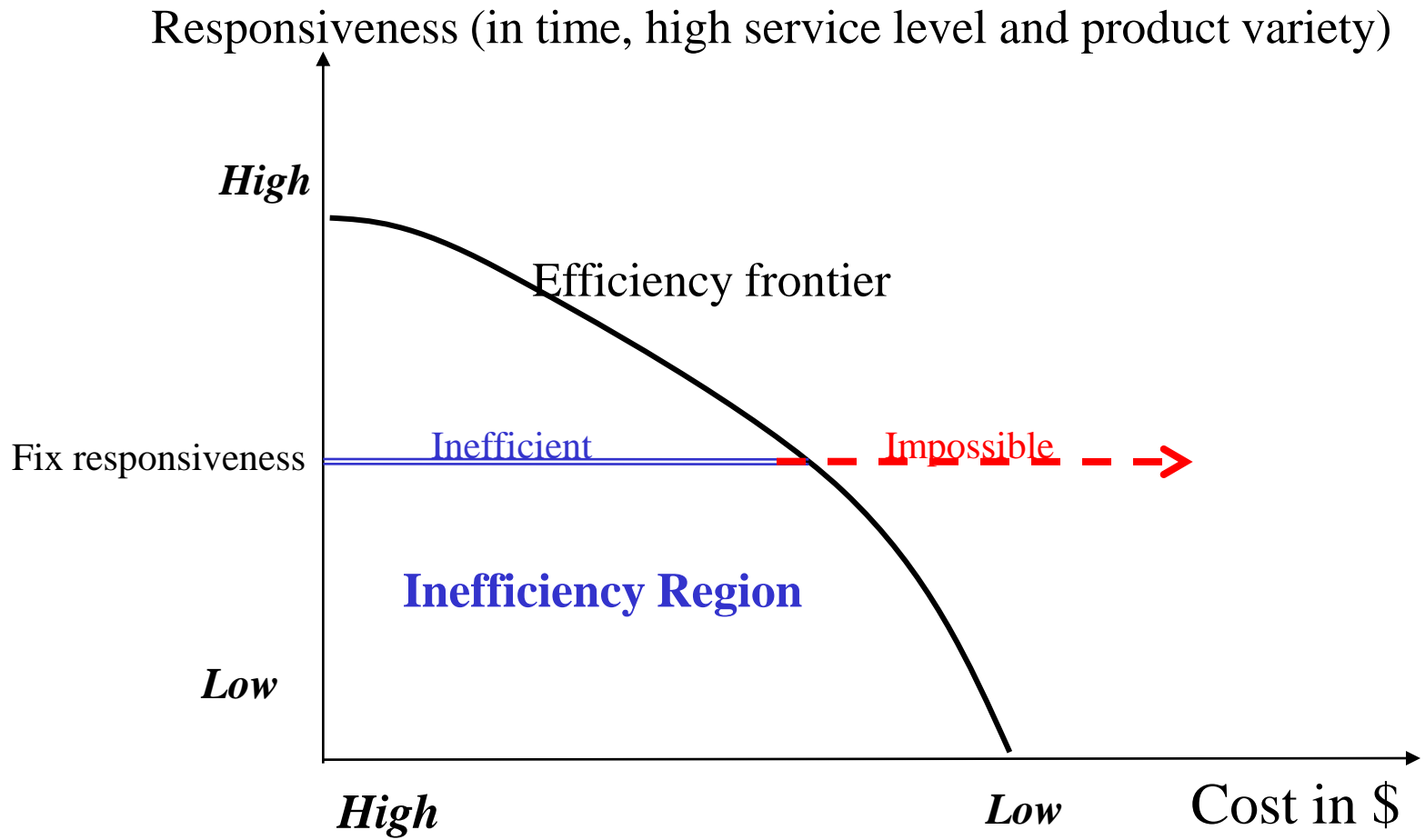
High Fashion Clothing

Emergency steel,
for maintenance/replacement



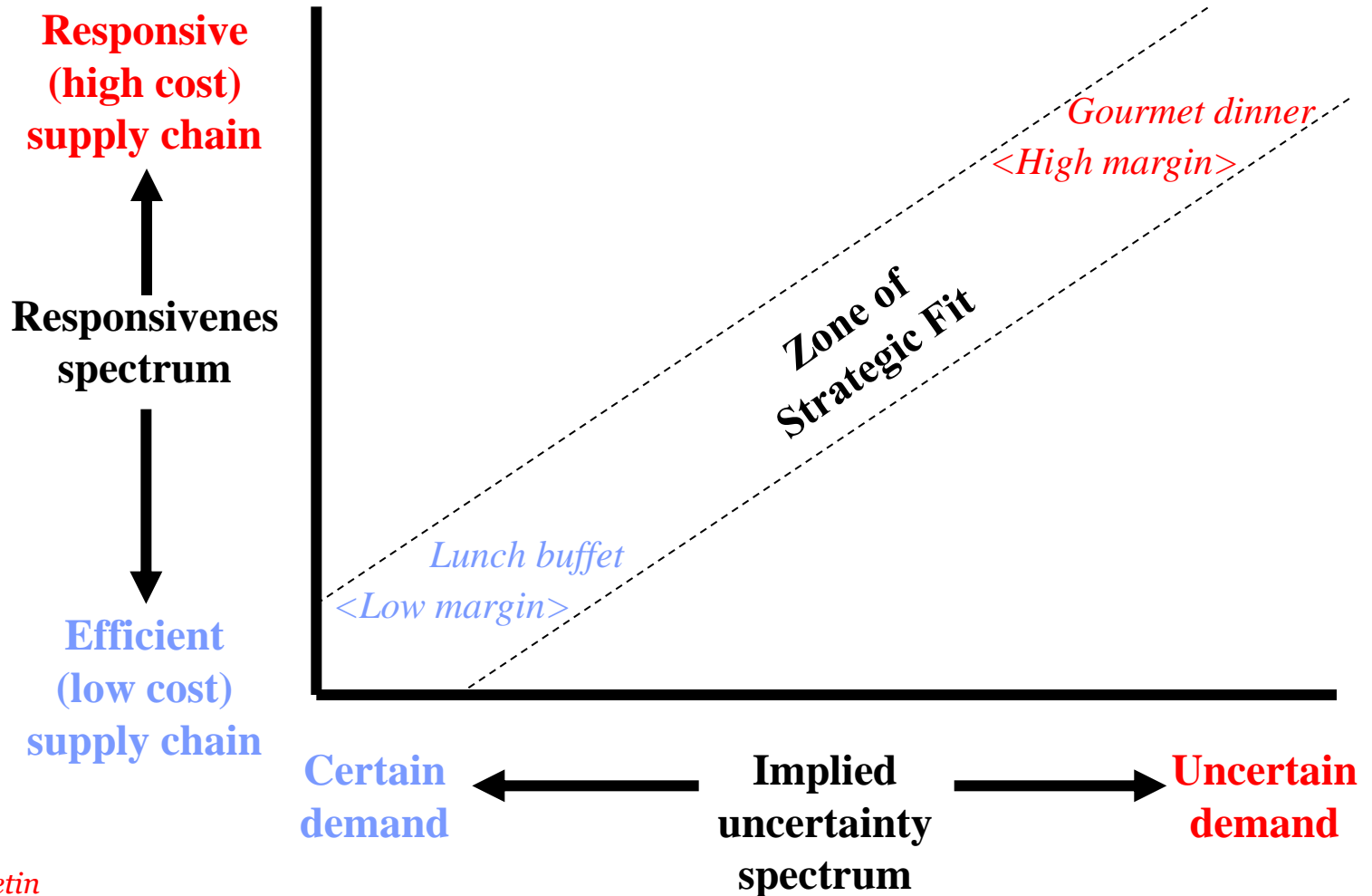
Short lead times, product variety,
distribution channel variety, frequent
innovations and high customer service levels
all increase the Implied Demand Uncertainty

Understanding the Supply Chain: Cost-Responsiveness Tradeoff



Why decreasing slope (concave) for the efficiency frontier?

Achieving Strategic Fit: **Wishes** vs. **Capabilities**



Loosing the strategic fit: Webvan

- ◆ Webvan merged with HomeGrocer in Sept 2000 and completed in May 2001.
- ◆ Declared bankruptcy in July 2001. Why?
 - “Webvan was so behemoth that could **deliver anything to anyone** anywhere that it lost sight of a more mundane task: pleasing grocery customers day after day”.
 - Short to midterm cash mismanagement. Venture capital of \$1.2 B run out.
 - Merger costs: duplicated work force, integration of technology, realignment of facilities.
- ◆ **Peapod** has the same business model but more focused in terms of service and locations. It actually survives with its parent company Royal Ahold’s (Dutch Retailer) cash.
 - Delivers now at a fee of \$6.95 within a day.

Big retailers' Strategy

- ◆ **Wal-Mart:** Efficiency
- ◆ **Target:** More quality and service
- ◆ **Carrefour:** International, ambiance
 - Wal-Mart and Carrefour together in big countries: China, Brazil.
 - Andrea Cravens, SCM Onliner 2010, reported from Brazil
- ◆ **K-Mart:** Confused.
 - Squeezed between Target and Wal-Mart
 - Reliance on coupon sales
 - Do coupons stabilize or destabilize a Supply chain?
- ◆ **K-Mart and Sears** merged in November 2004
 - » **K-Mart** gets cash
 - » **Sears** gets presence outside malls
- ◆ **Carrefour:** Loosing market share in France to smaller retailers. Demographic changes (small families, singles) decrease amount bought by a consumer. Adding new services to attract customers: Massage stations.

German Interest:

- ◆ Aldi (discount chain) in USA and Dallas.
- ◆ Aldi venture Trader Joe in California.
 - ◆ Trader Joe: neighborhood grocery store

Other Factors

- ◆ **Multiple** products in a SC.

 - Multiple** customers for a given product

 - Separate supply chains or Tailored supply chains
 - » e.g. Barnes and Noble: Retailing and/or e-tailing
 - Product and/or **customer classes**
 - » e.g. UTD library loans books for 6 months (2 weeks) to faculty (students)
 - » **Customer segmentation** by pricing

- ◆ **Competitors:** more, faster and global

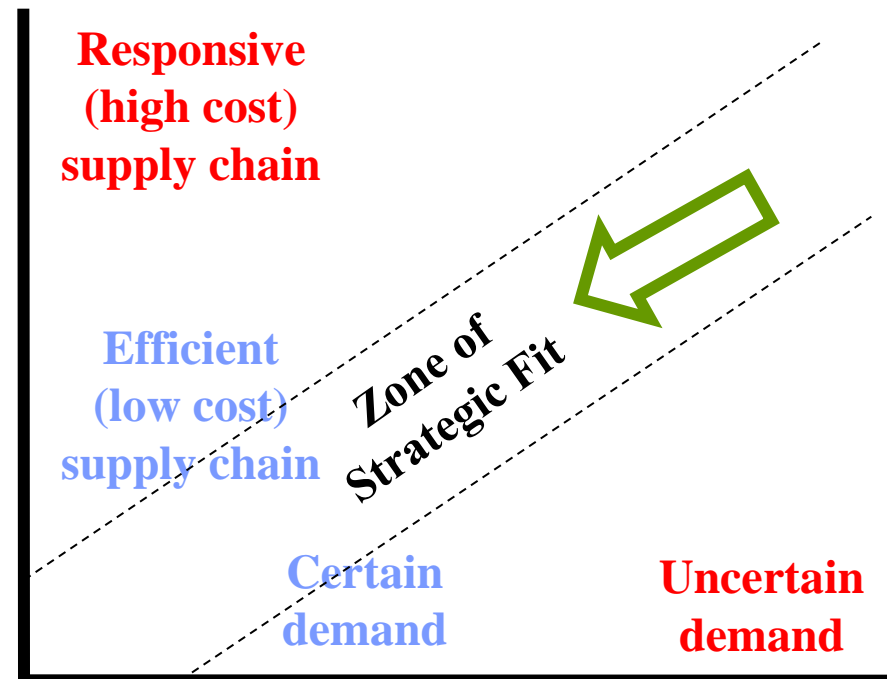
 - » UTD online programs compete globally

- ◆ **Macroeconomic factors** for visibility

 - » Forecasting Home Depot sales from S&P 500 price index.
 - » Forecasting AC sales from new Housing starts
 - » Nose-diving consumer confidence index post 2008

Achieving Strategic Fit over a Shortening Product Lifecycle

- ◆ SCM strategy **moves towards efficiency** and low implied uncertainty as products age
 - e.g. Air travel is becoming more efficient
 - » e.g. Southwest airlines lead the drive for efficiency
 - » e.g. Airbus announced A380 accommodating 555-800 people on Jan 17, 2005.
 - e.g. Flat screen display producer AU Optronics of Taiwan was looking for ways to make its SC more efficient in June 2004.
- ◆ Replacement sales
 - Selling to replace broken units.
 - » e.g. AC replacement is about 50% of the market.



Summary

- ◆ Mission-Strategy-Tactics-Decisions
- ◆ SCM vs. Product Development and Marketing
- ◆ Achieving Strategic Fit

The Dance of the Hours by Amilcare Ponchielli <http://www.youtube.com/watch?v=PHgf3rTTfOI&NR=1>

Addendum WalMart and Carrefour in Brazil

- ◆ In my discussion of big retailers, I say that WalMart and Carrefour are together in China. They are together also in Brazil. WalMart has acquired one of the largest supermarkets on the north eastern region of Brazil in 2009.

But this reinforces my point that these companies exist together only in big and fast developing countries, like BRIC countries. You can read about

- WalMart in India from J. Halepete, K.V. S. Iyer and S. C. Park. 2008. Wal-Mart in India: a success or failure?". *International Journal of Retail & Distribution Management*, Vol. 36, No. 9: 701-713.