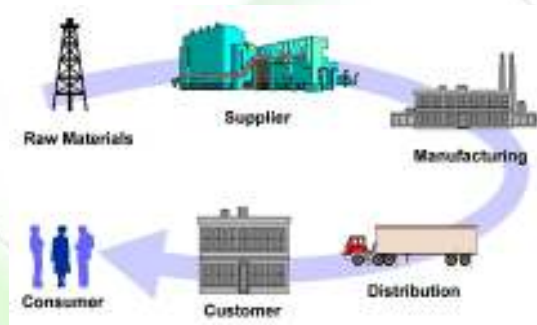


Supply Chain Management

September 14, 2015



Vandana Srivastava

Important Information

- Reminor: on Thursday, September 17, 2015 between 2:00 – 3:00 pm at 3 LT1

Case Study in Supply Chain Management



INDIA

SCM Example: McDonalds India (Jan 2013)

- command instant recognition in virtually every country of the world
- has more than 33,000 restaurants in over 118 countries, serving around 67 million customers
- present in 40 cities in India with around 250 restaurants serving 6.5 lakh customers everyday
- SCM network in India is:
 - Completely outsourced
- growth rate in India is 30% - 40%
- first restaurant opened in 1996; research teams took 6 years from 1990 to layout the operations



<http://indianresearchjournals.com/pdf/APJMMR/2013/January/10.pdf>

McDonalds Supply Chain in India

- food ingredients are supplied by:
 - **Tier 1 Suppliers**
14 core suppliers provide processed food e.g. vegetable and chicken patties from *Vista Processed Foods Pvt Ltd*, French Fries, potato wedges and hash browns from *McCain Foods India Pvt Ltd*
 - **Tier 2 Suppliers**
growers and producers who provide lettuce, potato and poultry items to tier – 1 suppliers for processing
- fleet of special trucks transport the processed food to the company's distribution centres (DC); these are multi-temperature and single temperature trucks; 2 side doors apart from a rear door in trucks so that products can be unloaded without disturbing other temperature zones
- 4 DC cater to the needs of 250 restaurants; every new restaurant is handled by these within 10 days
- primary DCs (Noida and Mumbai) are owned by the company; other 2 (Bengaluru and Kolkata) are leased
- system used to manage link between restaurants and DC's *is hub-and-spoke model* where DC's act as hub

<http://indianresearchjournals.com/pdf/APJMMR/2013/January/10.pdf>

McDonalds Supply Chain in India

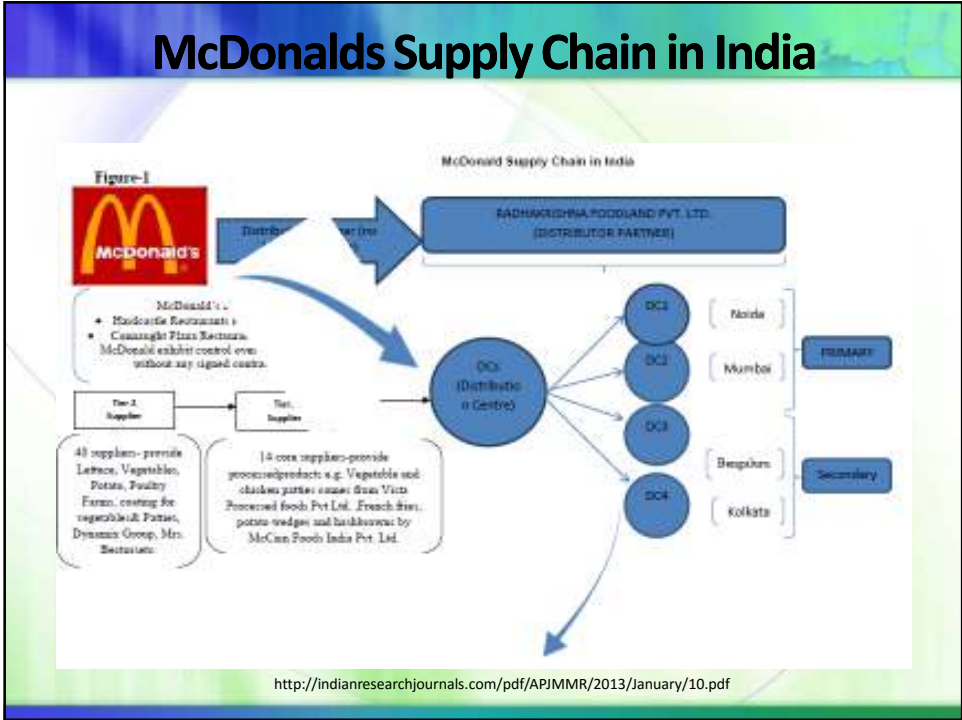
- transportation is completely outsourced and with 80% refrigerated truck movement, company has a dedicated fleet
- 100% outsourced -> rarity in industry giants
- principle followed is **trust and collaboration** between brand, owners or operators and suppliers
- complete control over its functioning; performance of outsourced companies and DC's are monitored using **Key Performance Indicators**:
 - administration efficiency
 - the total number of cases managed per man hour,
 - warehouse efficiency,
 - overtime as a percentage of the total number of hours worked and in the case of transportation,
 - the number of cases handled per trip,
 - truck utilization, etc.
- no legally signed agreements with suppliers; "one-product-one supplier" policy

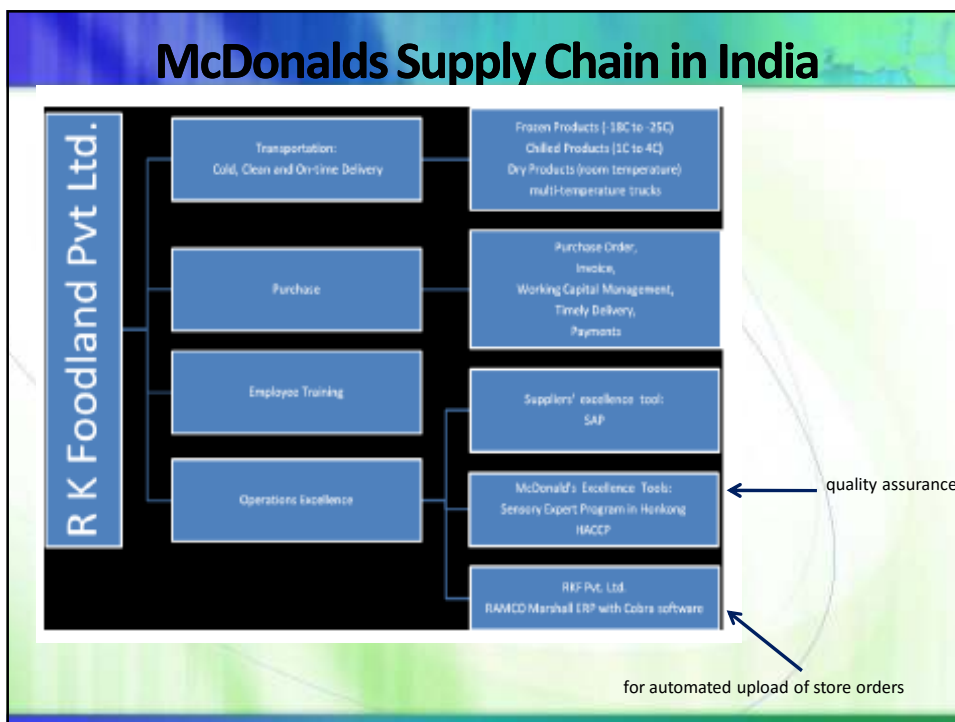
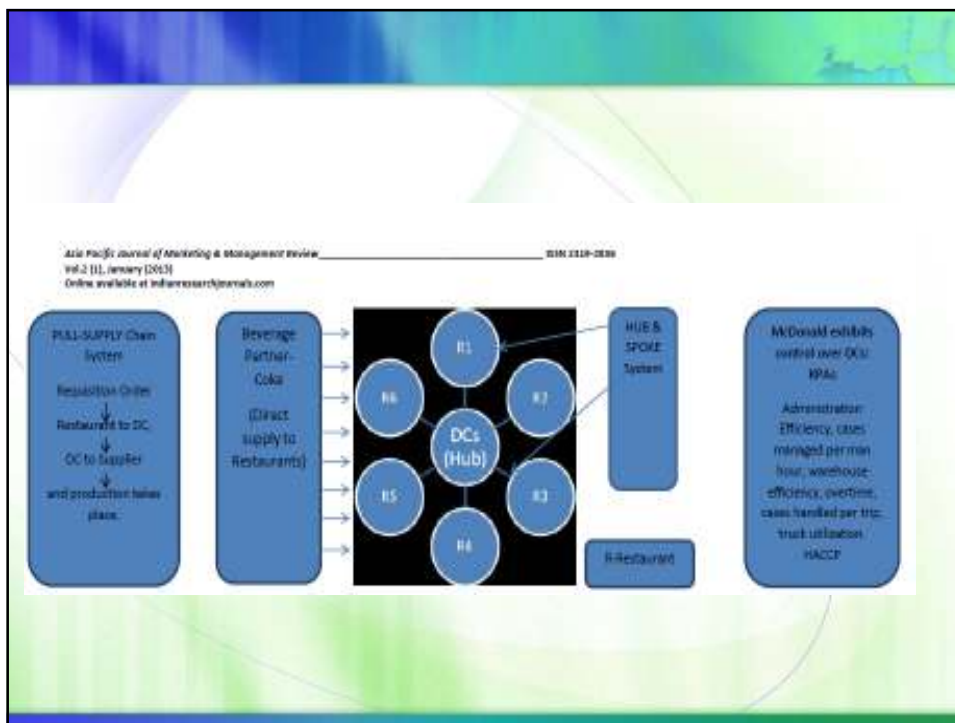
<http://indianresearchjournals.com/pdf/APJMMR/2013/January/10.pdf>

McDonalds Supply Chain in India

- has only one distribution partner in India, **Radhakrishna Foodland Pvt Ltd**; RKFL manages 4 DCs and control the transportation logistics all over India
- manages daily activities of McDonalds like raising purchase order to suppliers, invoicing, timely delivery, payments etc
- except bun and coke, everything is sourced directly from RKFL; buns are send directly to the outlets to preserve freshness and Coca-Cola has its own supply network
- “pull-supply” strategy
 - restaurant -----> Distribution centre -----> suppliers produce only on demand (made to order).
 - supplier barely maintains extra stock except if there is contingency like machine servicing or overhaul
- demand forecasting is done using **31Q concept**
 - 3 stands for 3 years that the fast food chain will keep checking its plans
 - 1 means forecasting for the next year
 - Q means quarterly monitoring of these forecasts
- demand forecast by restaurants to DC is from 3 days to 1 week and DC’s has 3 month forecast with the suppliers

<http://indianresearchjournals.com/pdf/APJMMR/2013/January/10.pdf>





SCM Example: McDonalds (global)

Earlier Practice

- stock ordering was the responsibility of individual restaurant managers
- they ordered stock using their local knowledge or using historical sales data
 - For example, if last week's sales figures showed they sold 100 units of coffee and net sales were rising at 10%, they would expect to sell 110 units this week.
- simple method and involved no calculations to take account of factors such as national promotions or school holidays
- took up a lot of the Restaurant Manager's time, leaving them less time to concentrate on delivering quality food, service and cleanliness in the restaurants

New System

- In 2004, McDonald's introduced a specialist central stock management function known as the "**Restaurant Supply Planning Department**"
- this department regularly communicates with restaurant managers to find out local events
- The team incorporates these factors into the new planning and forecasting system (**called Manugistics**) to forecast likely demand of finished menu items (e.g. Big Macs)

Case study: Amazon.com

Inside Amazon: Secrets of an Online Mega-Giant

(<https://www.youtube.com/watch?v=zknLfU7GJIw>)



Supply Chain: Top 5 in 2015

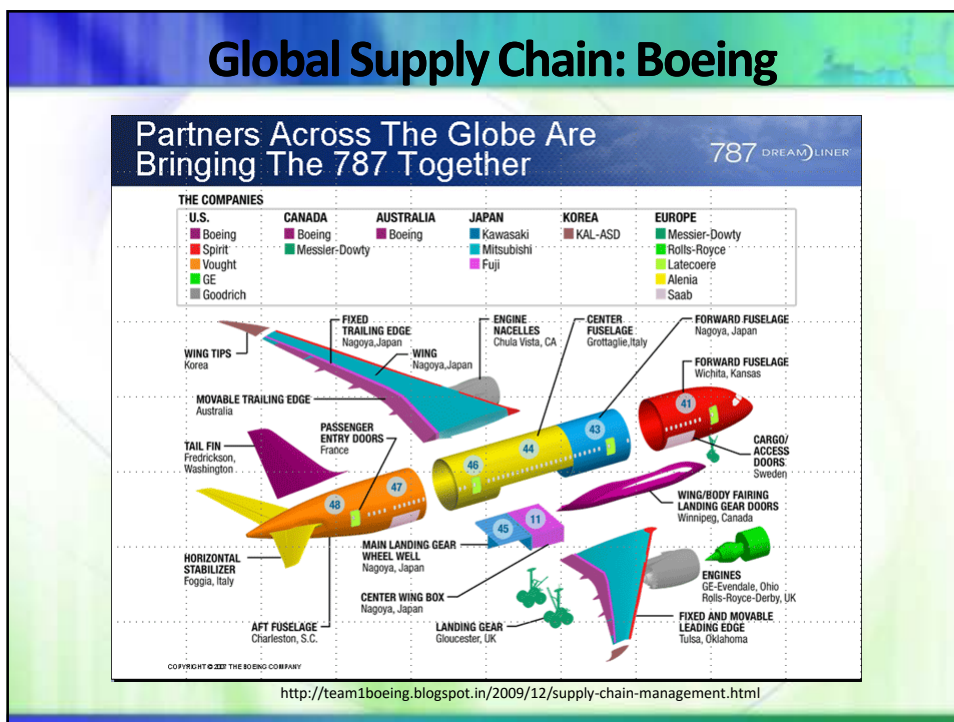
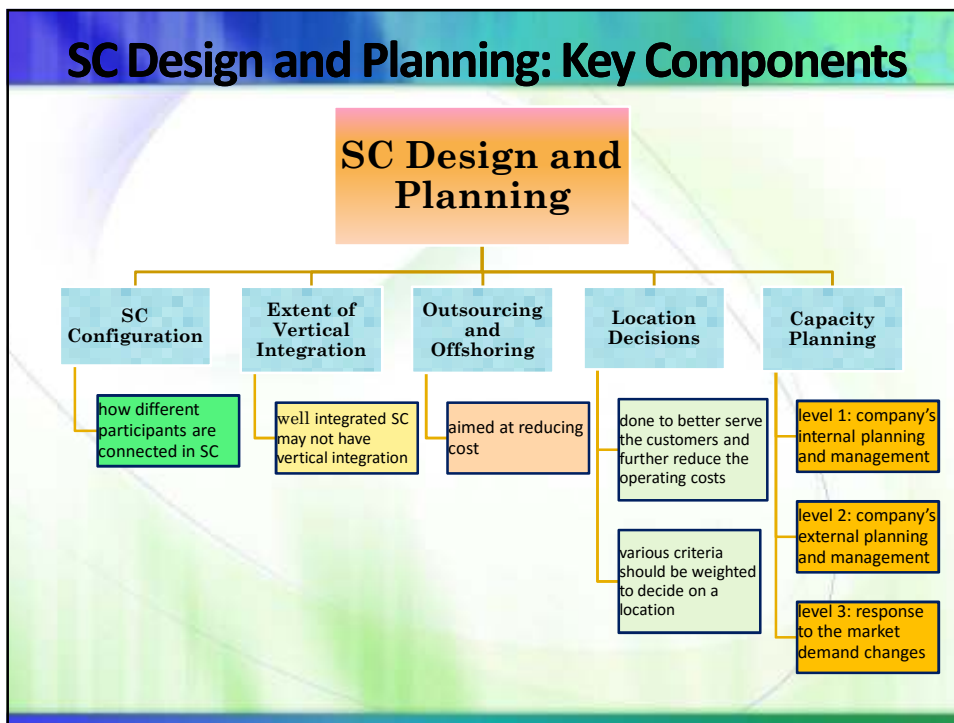
- according to Gartner report:

2015 ranking	Company
1	Amazon
2	McDonald's
3	Unilever
4	Intel
5	Inditex

http://www.industryweek.com/top25supplychains2015#slide-20-field_images-167391

Supply Chain Design and Planning

- most important issue
- planning the SC architecture that every participant adds value
- management challenge is to maximize the value added in the SC at the minimum cost



Supply Chain: Case Study Video

“Penske Logistics and Ford Motor Company's European Supply Chain Case Study”

(<https://www.youtube.com/watch?v=KWABT48wTFw>)



Supply Chain Management: Challenges

- Matching Supply and Demand
 - Raw material shortages, internal and supplier parts shortages and productivity inefficiencies led to Boeing Aircraft's inventory write-down of \$2.6 billion
- Fluctuations of inventory and backorders throughout the Supply Chain
- unforeseen events
 - August 2005 – Hurricane Katrina
P&G coffee supplies from sites around New Orleans created six month impact
 - 2002 West Coast port strike
Losses of \$1B/day; Store stock-outs, factory shutdowns
 - 1999 Taiwan earthquake
Supply interruptions of HP, Dell
 - 2001 India (Gujarat state) earthquake
Supply interruptions for apparel manufacturers
- creating customer-centric supply chains
 - shift from supplier-centric to market centric, more agile towards customer needs
- managing supply networks
 - manage whole supply network as an integrated unit
- adapt to structural, technological and relational changes