The Event-Driven Supply Chain—Challenges and Benefits

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Agenda

1. Introduction – Traditional Supply Chain
2. Scenarios of events that challenges the tradition
   2.1 Scenario 1 – Soccer world cup
   2.2 Scenario 2 – Holiday season
3. Event driven supply chain (EDSC) vs. the traditional method
4. What can we learn from event driven supply chain?
5. Benefits due to Event Driven Supply Chain
Traditional Supply Chain

Supply chain is defined as the seamless information and material flow between three different entities: The customer, the manufacturer and the supplier.

Trend is that suppliers want to reduce costs and increase reward, but it's getting harder to reach consumers – from both marketing and supply chain perspectives!
Scenarios of events that challenges the tradition

And the crowd goes wild!!!!

...and the winner is!!??

Race against time to get merchandise out
‘Tis the season to be jolly

Christmas is upon us – make sure you are prepared!!

What are the effects of these scenarios?

- Managers need to determine what the best solution is for when a “disaster occurs” – like a truck being caught in a snowstorm and how they are going to achieve their goals.

- Does the supplier know what the impact of running out of stock (ham or souvenirs) is?

- How does the supermarket owner maximize his sales now if the worst happens?

- Are all consumers affected if there is a lack of stock & who’s needs do they satisfy first (internet purchasers or store customers?)
What are the effects of these scenarios?...
Continued

- Is it possible for another delivery to be sent for the truck that got stuck?
- Is there time for a second shipment to be sent if we do not have enough stock?
- Is there a possibility for the supplier to use supplies from other stores in the chain?
- Will the other stores cope with less stock?

EDSC – How times have changed

- With the internet and marketing/advertisements being released so fast these days, “wish lists” are prepared before holidays or events and shopping starts earlier – thus peak periods have changed or are different to what is anticipated.
- (i.e. during the world cup fans might have requests from friends to bring souvenirs back)
EDSC – How times have changed

• With people being time poor, they are not putting too much time and thought into gifts – thus the easiest options are gift cards. This trend has increased as well and results in a change in the timing of the peak. This results in the increase in sales after the traditional peak periods. (i.e.. Increased purchases after Christmas.)

EDSC – How times have changed

• Economic situation has an influence too, where people hold out for sale periods as they try and save as much as they can. With sales being scheduled after some holiday periods, the peak will be reached after the traditional peak period.
EDSC – History to Present

Video Link

Event driven supply chain vs. the traditional method
EDSC vs. traditional method

- Raw Material Supplier
- Component supplier
- Primary Manufacturer
- Distribution Warehouse
- Retailer

Mind shift here – have ½ completed products here to ensure faster turnaround time

Determine if there is appropriate capacity for the event

Rethink distribution channels i.e. will current transporters have enough capacity?; what about emergency stock? Etc.

Common issues in Supply Chain highlighted during EDSC

- High costs
  - If emergency stock is required on short notice
- High stock levels
  - Uncertainty of what the demand will be due to no history to base the planning on
- Fire fighting
  - Unpredictability – not knowing who the winning team will be thus unsure what colour shirts need to be in stock
- Dissatisfied suppliers/customers
  - Ham did not arrive on time – customer might feel that retailer is unreliable and will not return to them again
What can we learn from Event Driven Supply Chain?

1) Define goals and objectives upfront
2) Design supply chain and prepare for event
3) Monitor execution and act fast
4) Evaluate results and improve approach

What can we learn from EDSC?
Design supply chain & prepare for event
• Services – Current staff
  • Staff capacity
  • Shifts – will staff members be required to work longer shifts over the peak period and beforehand.
  • Provision for overtime pay over peak period
  • Is additional training required for current staff members to cope?

Design supply chain & prepare for event… (continued)
• Services – Additional staff
  • Will additional staff need to be employed for this period
  • Will new staff members need to be trained and how long will this training take?
  • Is there enough time for training staff before the event?
  • Long term staff members to do more of the complex tasks
  • Short term/casual staff to perform more menial tasks
Design supply chain & prepare for event… (continued)

• Storage

  • Enough storage capacity to house the additional goods?

  • Is there a possibility of obtaining short term storage space (Hire)?

  • Apply “lean” methodology to current storage i.e. utilize parking areas as additional storage.

  • Increased insurance cover – for additional goods and storage?

Design supply chain & prepare for event… (continued)

• Storage (continued)

  • Appropriate warehouses set up - popular goods can be distributed quicker?

  • Different distribution channels –
    • Are there ways that goods could be distributed to end users directly from ports or airports instead of bringing it to supplier storage?
Design supply chain & prepare for event… (continued)
• Transportation

- Is it possible for the supplier to obtain goods long before the peak period?

- Is current transporter able to cope with the additional demand or should an additional transporter be used as contingency?

- Options need to be explored if emergency stock is required. (cost and availability of different modes of transportation i.e. air or road)

- Capacity of 3rd party transport companies might be limited, due to the increased demand from multiple suppliers

- Reverse logistics – ensure that there is a plan in place for returns.

- Weather conditions – particularly if this could cause disruption during a busy period. (period of snowfall, flooding etc. which could cause rail or road closure, or storms which could disrupt power).
Design supply chain & prepare for event… (continued)

- **Transportation**
  - Types of goods: where soft goods like clothing compete for space with electronic goods (i.e. when the new iPhone 5 was released, there was a higher demand in airfreight, but this did not result in a backlog, it resulted in a slight fare increase over this time)
  - (Source: http://www.dbschenker.com/file/3193450/data/usa_news11.pdf)

- **Equipment – Current equipment**
  - Can the current equipment cope?
  - Is maintenance or calibration planned before or during the peak period?
  - Can additional equipment be obtained to assist with the additional demand.
  - Additional insurance costs for new or additional machines.
Design supply chain & prepare for event… (continued)

**Equipment – New equipment**

- Is specialized equipment required for the period with long lead times to manufacture or delivered.

- Are additional staff members needed to operate additional or specialized equipments.

**Equipment – General**

- Do we need extra generators during peak times (or storm periods when demand might be high or deliveries can not be made)

- Are there contingency plans in place for if equipment malfunction or break during the peak period.

- Are there enough spare parts in stock for the peak period.
Benefits as a result of Event Driven Supply Chain

Benefits of EDSC
Qualitative and Quantitative benefits (continued)

• Indirect benefits

• Defining new industry relationships i.e. Implementation of vendor management systems:
  - Identify all critical suppliers, don’t only focus on direct suppliers.
  - Focus on relationship and management of critical suppliers.
  - Knowledge if suppliers have contingency plans in place if disruptions occur.
  - Development of own company contingency plans.

• Although the above mentioned strategies are not “quick wins” or seem like benefits at face value, they do initiate the exploration of effective solutions which are beneficial to the supply chain as a whole.
Benefits of EDSC

Qualitative and Quantitative benefits (continued)

• Direct benefits

  • Active transportation and forged relationships with key logistics companies
  • Well established capacity plans
  • High conformance to production schedules
  • Reduces the number of individual demand forecasts – effectively anticipating event driven demand, both down and upstream supply chain communicates and produces a collaborative demand forecast
  • Enhanced performance – Improved performance through correct data analyses

Benefits of EDSC (continued)

Qualitative and Quantitative benefits (continued)

• “Green” Benefits

  • The effective planning and execution of an EDSC also have “Green” benefits. Proactive management of major events such as the Olympics/FIFA Soccer World cup, could aid in the establishments of key guidelines to ensure manufacturers, suppliers, sponsors as well as licenses operations are performed in an environmentally friendly manner. Some “Green” benefits include:

    • Reduce Electricity usage
    • Reduce Carbon emissions
    • Optimal utilization of certain materials
    • Increase Bio – degradable packaging
    • Use of substances and materials harmful to the environment
Q&A

Thank you

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Survey

http://tinyurl.com/lr3pjc