PLUS project

Contents

- Background
- Project setup
- Project goals
- Resources and funding
- Project initiatives

Hans-Henrik Hvolby

Department of Production, Alborg University

www.misg.aau.dk

Background

Consultant's & business magazine's view of supply chains:



and high rates of saving by entering @ solutions:

- Integrated systems (e.g. APS Advanced Planning and Scheduling)
- E-hubs / auction sales (15% cost reduction)

Hans-Henrik Hvolby

Department of Production, Alborg University

www.misg.aau.dk

Background

Industial view of supply chains:



and few examples of savings:

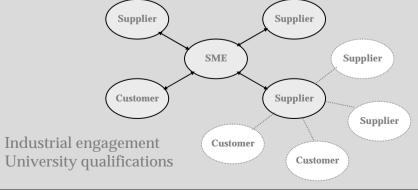
- Integrated systems: expensive (APS not accessible for SMEs); few success stories.
- E-hubs / auction sales: few bids (not currently widespread in industry).

Project setup

3 company networks, each of 5 SMEs

The 3 core companies are in focus

The implemented solutions need to go along with the solutions of the "second-tier" networks



Hans-Henrik Hvolby

Department of Production, Alborg University

www.misg.aau.dk

Project goals

Reduce the administrative workload of information exchange in the supply network (submitting orders and order changes to suppliers; receiving orders and order changes from customers; submitting order confirmations)

Exploit the knowledge of the production plans among the other partners in the network and thereby:

- reduce lead-time
- increase delivery performance
- improve ressource utilisation

by enabling a more simple type of supply chain planning Offer extra services to business partners to obtain more or less on-line information (production plan, stock levels etc) any time of the day

Hans-Henrik Hvolby

Department of Production, Alborg University www.misg.aau.dk

Project initiatives

Four steps

Lean order management

- Forward flows
- Reduce non-value adding activities
- Few responsibility changes

Supplier base activities

- Segmentation; reduction
- Supply Chain Planning solutions
- Supplier involvement

Data validation

- Items: Bill of materials
- Routings; process time
- Lead-time: order/batch size

IT initiatives

- Type of solutions; status of manufacturer and supplier

www.misg.aau.dk

- Information to share
- Access and safety

Resources and funding

Project resources

25%, Aalborg University (analysis, specification, development, coaching, networking, knowledge spreading etc.)

25%, External consultants (programming, implementation)

50%, Company resources (analysis, implementation)

Project funding

50% from the Danish ministry of Science 50% from the companies involved (own resources)

The aim is to extend university - industry collaboration

Hans-Henrik Hvolby

Department of Production, Alborg University

www.misg.aau.dk

Project initiatives

Supplier segmentation (inspired by Bensaou)

Capacity suppliers

- Customised products
- High costs related to switch of supplier
- High need of information sharing
- Supply chain type relationship
- Lean production philosophy

Standard suppliers

- Standard products
- · Low costs related to switch of supplier
- Low need of information sharing
- (Loose) supply chain type relationship
- Aim for lean production

System suppliers

- Highly customised products
- Joint technology/product development
- High need of information sharing
- Extended or virtual enterprise type relationships
- · Agile production philosophy

Key suppliers

- Complex products
- · Manufacturers dependant of suppliers
- Frequent need of information sharing
- Extended enterprise type relationship
- · Leagile production philosophy

Project initiatives

Supplier segmentation, eksample

Segments (based on Bensaou)	Suppliers		Purchased
	(#)	(%)	value (%)
Standard suppliers	10	4	16
Capacity suppliers	13	5	18
Key suppliers	15	6	34
System suppliers	3	1	15
Ungrouped suppliers	210	84	17
Total	251	100	100

Hans-Henrik Hvolby

Department of Production, Alborg University

www.misg.aau.dk

Project initiatives

IT initiatives

Java Server Pages (JSP) to offer dynamic database search via the web and thereby allow business partners to view relevant information on stock levels, job status etc.

Text-files, spreadsheets or eXtended Markup Language files (XML) to exchange information (orders, requests, forecasts, production plans etc) between partners in the supply network (by email or e-hubs).

Use/develop simple supplier e-hubs to exchange information between standard exchange formats. E.g. VMI systems supporting advanced information exchange and easy control of order flow.

