CH 9 E-PROCUREMENT
WHAT IS E-PROCUREMENT

E-PROCUREMENT SHOULD BE DIRECTED AT IMPROVING PERFORMANCE FOR EACH OF THE ‘FIVE RIGHTS OF PURCHASING’ (BAILY ET AL., 1994) WHICH ARE SOURCING ITEMS:

1. AT THE RIGHT PRICE
2. DELIVERED AT THE RIGHT TIME
3. OF THE RIGHT QUALITY
4. OF THE RIGHT QUANTITY
5. FROM THE RIGHT SOURCE
Figure 7.1
Key procurement activities within an organization
### Header Information
- **Vendor:** NDworks Inc.
- **Delivery date:** 08/13/1998
- **Purchasing org.:** 3000
- **Purchasing group:** 001
- **Plant:** 3000

### Shipping Information
- **Name:** SAP Labs Solutions Center
- **Street:** 3475 Deer Creek Road
- **City:** Palo Alto
- **State:** CA
- **Zip code:** 94304
- **Country:** US

### Order Form

<table>
<thead>
<tr>
<th>Select</th>
<th>Item</th>
<th>Quantity</th>
<th>Unit</th>
<th>Description</th>
<th>Unit Price</th>
<th>Extended Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Order Total:** 0.00
PARTICIPANTS IN ONLINE PROCUREMENT

• TRADITIONAL MANUFACTURERS
• DIRECT SALES MANUFACTURERS
• VALUE-ADDED PROCUREMENT PARTNERS
• ONLINE HUBS
• KNOWLEDGE EXPERTS
• ONLINE INFORMATION SERVICES
• ONLINE RETAILERS
• PORTAL COMMUNITIES
DRIVERS AND BENEFITS OF E-PROCUREMENT

- REDUCED PURCHASING CYCLE TIME AND COST
- ENHANCED BUDGETARY CONTROL
- ELIMINATION OF ADMINISTRATIVE ERRORS
- INCREASING BUYER’S PRODUCTIVITY
- LOWERING PRICES THROUGH PRODUCT STANDARDIZATION AND CONSOLIDATION OF BUYS
- IMPROVING INFORMATION MANAGEMENT
- IMPROVING THE PAYMENT PROCESS
VENDOR-MANAGED INVENTORY (VMI)

Supply chain partners manage the replenishment of parts or items for sale through sharing of information on variations in demand and stocking level for goods used for manufacture or sale.
EFFICIENT CONSUMER RESPONSE (ECR)

**ECR** is focused on demand management aimed at creating and satisfying customer demand by optimizing product assortment strategies, promotions, and new product introductions. It creates operational efficiencies and costs savings in the supply chain through reducing inventories and deliveries.
E-PROCUREMENT COST-SAVINGS

THE COST-SAVING BENEFITS OF E-PROCUREMENT ARE THEORETICAL RATHER THAN ACTUAL SINCE ONLY REDUCED HEADCOUNT IN PROCUREMENT CAN RESULT IN SAVINGS.

Table 7.3: Procurement as a percentage of costs of goods sold for different industry sectors (estimates from Kluge, 1997)

<table>
<thead>
<tr>
<th>Industry</th>
<th>Procurement costs as a percentage of cost of goods sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer electronics</td>
<td>60–70%</td>
</tr>
<tr>
<td>Mini and personal computers</td>
<td>50–70%</td>
</tr>
<tr>
<td>Consumer goods</td>
<td>50–70%</td>
</tr>
<tr>
<td>Automotive</td>
<td>50–60%</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>25–50%</td>
</tr>
<tr>
<td>Service industry</td>
<td>10–40%</td>
</tr>
</tbody>
</table>
RISKS AND IMPACTS OF E-PROCUREMENT

- ORGANIZATIONAL RISKS
- FAILURE TO ACHIEVE REAL COST REDUCTIONS
- TECHNOLOGY RISKS
IMPLEMENTING E-PROCUREMENT

• **STOCK CONTROL SYSTEM** – THIS RELATES MAINLY TO PRODUCTION RELATED PROCUREMENT; THE SYSTEM HIGH LIGHTS WHEN REORDERING IS REQUIRED WHEN THE NUMBER IN STOCK FALLS BELOW REORDER THRESHOLDS.

• **CD OR WEB-BASED CATALOGUE** PAPER CATALOGUES HAVE BEEN REPLACED BY ELECTRONIC FORMS THAT MAKE IT QUICKER TO FIND SUPPLIERS.

• **E-MAIL OR DATABASE BASED WORKFLOW SYSTEMS** INTEGRATE THE ENTRY OF THE ORDER BY THE ORIGINATOR, APPROVAL BY MANAGER AND PLACEMENT BY BUYER. THE ORDER IS ROUTED FROM ONE PERSON TO THE NEXT AND WILL WAIT IN THEIR IN BOX FOR AUCTIONING. SUCH SYSTEMS MAY BE EXTENDED TO ACCOUNTING SYSTEMS
IMPLEMENTING E-PROCUREMENT

• **ORDER-ENTRY ON WEB SITE** – THE BUYER OFTEN HAS THE OPPORTUNITY TO ORDER DIRECTLY ON THE SUPPLIER’S WEB SITE, BUT THIS WILL INVOLVE REKEYING AND THERE IS NO INTEGRATION WITH SYSTEMS FOR REQUISITIONING OR ACCOUNTING.

• **ACCOUNTING SYSTEMS** – NETWORKED ACCOUNTING SYSTEMS ENABLE STAFF IN THE BUYING DEPARTMENT TO ENTER AN ORDER WHICH CAN THEN BE USED BY ACCOUNTING STAFF TO MAKE PAYMENT WHEN THE INVOICE ARRIVES.

• **INTEGRATED E-PROCUREMENT OR ERP SYSTEMS** – THESE AIM TO INTEGRATE ALL THE FACILITIES ABOVE AND WILL ALSO INCLUDE INTEGRATION WITH SUPPLIERS’ SYSTEMS.
Alibaba.com is one of the leading B2B e-commerce companies in China. It provides a marketplace connecting small and medium-sized buyers and suppliers from China and around the world. Its web presence includes an international marketplace (www.alibaba.com) focusing on global importers and exporters and a China marketplace (www.alibaba.com.cn) which focuses on suppliers and buyers trading domestically in China.
JACK MA AND ALIBABA

• ALIBABA.COM เป็นเว็บไซต์สัญชาติจีน ก่อตั้งโดย แจ็ค หม่า หรือ หม่า หยุน ซึ่งอาลีบาบามีชื่อเสียงและเป็นที่ยอมรับอย่างมากสำหรับโรงงานในประเทศจีนที่ต้องการส่งออกสินค้าไปยังต่างประเทศ โดยอาลีบา บเป็นตัวละครในนิทานอาหรับซึ่งแจ็ค หม่า ให้เหตุผลในการตั้งชื่อนี้ว่า เป็นชื่อที่เรียกง่ายและจดจำได้ง่ายนิยมอย่างเป็นการบั้น ปัจจุบัน ALIBABA.COM เป็นเว็บไซต์ B2B (BUSINESS TO BUSINESS) เว็บไซต์ขายส่งที่ใหญ่ที่สุดในโลก โดยอาลีบาบานั้นให้บริการบริษัทขนาดเล็กและขนาดกลาง โดยส่งเสริมการทำ E-COMMERCE อย่างเต็มรูปแบบ ซึ่งอาลีบาบามาได้เข้าสู่ตลาดหุ้นฮ่องกงในปี 1997 และประกาศตัวเป็นเว็บไซต์ขายส่งที่ใหญ่ที่สุดในโลก

• จุดประสงค์หลักของ ALIBABA.COM คือการช่วยเหลือผู้ประกอบการรายเล็กให้มีศักยภาพในการทำตลาดผ่าน ALIBABA.COM โดยไม่จำเป็นต้องเสียค่าใช้จ่ายมากมายในการประชาสัมพันธ์ธุรกิจตนเอง โดยอาลีบาบามาให้บริการต้านอินเตอร์เน็ต ซอฟต์แวร์ต่าง ๆ รวมถึงบริการยังการส่งออก ซึ่งปัจจุบัน อาลีบาบามีตั้งสำนักงานใหญ่ใน 70 ประเทศทั่วโลก ได้แก่ จีน อินเดีย ญี่ปุ่น เกาหลี ประเทศในแถบยุโรป และสหรัฐอเมริกา เป็นต้น
B2B ELECTRONIC MARKETPLACES, EXCHANGES AND HUBS

VIRTUAL LOCATIONS WITH FACILITIES TO ENABLE TRADING BETWEEN BUYERS AND SELLERS. B2B ELECTRONIC MARKETPLACES ARE VARIOUSLY KNOWN AS ‘MARKETPLACES, EXCHANGES OR HUBS’. TYPICALLY THEY ARE INTERMEDIARIES THAT ARE PART OF THE RE–INTERMEDIATION PHENOMENON AND ARE INDEPENDENT OF BUYERS AND SUPPLIERS.

PRIVATE B2B EXCHANGES

• A MANUFACTURER OR MAJOR SUPPLIER TO DIFFERENT MANUFACTURERScreates a portal which is used for managing all aspects of procurement.
Private B2B exchanges

Figure 7.11 Ford supplier portal provided by Covisint
Source: Covisint.com

GOVERNMENT MARKETPLACE EXCHANGES

Type of Marketplace

- **Systematic sourcing** – negotiated contracts with regular suppliers, typically in long-term relationships.
- **Spot sourcing** – fulfilment of an immediate need, typically of a commoditized item for which it is less important to know the credibility of the supplier.

---

**Table 7.7**

Types of B2B marketplaces identified by Kaplan and Sawhney (2000) with examples

<table>
<thead>
<tr>
<th>How businesses buy</th>
<th>Operating resources</th>
<th>Manufacturing resources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Systematic sourcing</strong></td>
<td>MRO hubs, <a href="http://www.barclaysb2b.com">www.barclaysb2b.com</a></td>
<td>Catalogue hubs, <a href="http://www.toquest.com">www.toquest.com</a></td>
</tr>
</tbody>
</table>

SOFTWARE (INTELLIGENT) AGENTS

SOFTWARE PROGRAMS THAT ASSIST HUMANS BY AUTOMATICALLY GATHERING INFORMATION FROM THE INTERNET OR EXCHANGING DATA WITH OTHER AGENTS BASED ON PARAMETERS SUPPLIED BY THE USER.

AN AGENT IS A SOFTWARE PROGRAM THAT CAN PERFORM TASKS TO ASSIST HUMANS. ON THE INTERNET, AGENTS CAN ALREADY BE USED FOR MARKETING RESEARCH BY PERFORMING SEARCHES USING MANY SEARCH ENGINES AND IN THE FUTURE THEY MAY ALSO BE USED TO SEARCH FOR PRODUCTS OR EVEN PURCHASE PRODUCTS.
1. Procurement activities involved with purchasing items from a supplier include purchasing, but also transportation, goods-in and warehousing before the item is used.
2. E-procurement involves the electronic integration of all procurement activities.
3. The numbers of staff and stages involved in procurement are reduced through e-procurement by empowering the originator of orders and changing the role of buying staff.
4. E-procurement is intended to achieve reduced purchasing cycle time and cost savings, principally through reduced staff time spent in procurement and lower inventory.
5. Options for introducing e-procurement include:
   • Sell-side e-procurement – purchase direct from a seller’s web site that is typically not integrated with the buyer’s procurement system.
   • Buy-side e-procurement – integration of sellers’ catalogues with the buyer’s procurement system.
   • Marketplace procurement – trading through an intermediary with many suppliers (may or may not be integrated with buyer’s procurement system).
6. The main types of electronic marketplace in the terminology of Kaplan and Sawhney (2000) are combinations of:
   • Systematic sourcing of operating resources (MRO hubs)
   • Systematic sourcing of manufacturing resources (catalogue hubs)
   • Spot sourcing of operating resources (yield managers)
   • Spot sourcing of manufacturing resources (exchanges).
7. Organizational hurdles involved with the introduction of e-procurement include redeployment or redundancy of staff and overcoming fears of trust in suppliers.
8. The main technical challenges are the integration or replacement of a range of existing purchasing systems with a variety of supplier or marketplace systems.