

***Competitive Paper Abstract: Towards an Electronic
Commerce Model for Industrial Procurement***

Authors:

Anders Johansson, M Sc, M B A, Ph D Candidate

Daniel Kindström¹, M Sc, Ph D Candidate

Jakob Rehme, M Sc, Ph D

Department of Management and Economics
University of Linköping
SE 581 83 Linköping
SWEDEN

E-mail: danki@eki.liu.se

Phone: +46 (0)13 28 24 96

Fax: +46 (0)13 28 18 73

¹ Corresponding author

Abstract

Electronic commerce has gained widespread reputation in the business community for reducing procurement costs. There has been a decline in media interest in the area of electronic commerce (EC), although industrial companies are increasingly using EC-solutions. Electronic commerce over the Internet allows most companies to consider the use of Internet in the interaction with e.g. suppliers. Supply chain management (SCM) has increased the view from individual buyer/seller relationships to instead encompass a sequence of relationships, where the goal is to provide end-customer value in competition with other chains. A prerequisite for efficient SCM is the utilisation of information technology (e.g. electronic commerce) in order to improve and reduce costs in buyer/seller interactions. Although SCM focuses on the total supply chain, many SCM efforts are initiated from a buyer perspective (cf. Rehme 2001). This means that procurement is an important aspect to investigate in order to understand how electronic commerce is used in buyer/seller relationships.

Procurement between industrial companies involves a complex but structured process that involves several steps all the way from the search of suppliers to the resulting delivery and invoicing of goods (see e.g. Persson and Virum, 1998; van Weele, 1998). There are normally a limited number of suppliers available and the procurement process also involves the build up of personal relations between representatives from several departments of the companies (Rehme, 1998). Authors like Kraljic (1983) and Van Weele (1998) have in their work developed purchasing strategies for industrial companies that are based on e.g. the product characteristics. The purchasing strategies employed, the relationship building and the resulting procurement processes may to differing degrees be affected by the use of electronic commerce in the purchasing operations. In order to increase the awareness of how e-commerce is, and can, influence procurement strategies and the associated procurement process it is of importance to examine existing and possible e-commerce/procurement models.

Although companies' usage of electronic commerce is increasing, the knowledge on elements affecting the different solutions is insufficient, which means that they cannot be utilised to their full potential. There are several elements – product characteristics, technology, business processes, business models and behavioural elements – that, in our opinion, need to be considered when adopting electronic commerce solutions in procurement. Existing procurement practice and knowledge need to be set against the capabilities of electronic commerce to find out more about the potential and the distinctions instead of "buying" the general cost saving statements.

The purpose of this paper is to develop an analysis model for electronic commerce applications in industrial procurement. The intent with the developed model is to increase knowledge in the area and provide practitioners with useful insights into the use of e-commerce in the field of procurement.

References

- Bowersox, D. J., D. J. Closs, et al. (1999). 21st century logistics : making supply chain integration a reality. Oak Brook, Ill., Council of Logistics Management.
- Brehmer, P. O. and A. Johansson (2001). B2B-Marketplaces - Strategic Value for Whom? IMP 2001, Oslo, Norway.
- Bucklin, L. P. (1966). A theory of distribution channel structure, Berkeley Calif.
- Cheng, E. W. L., H. Li, et al. (2001). "An e-business model to support supply chain activities in construction." Logistics Information Management 14:(1/2)68-77.
- Christopher, M. (1998). Logistics and supply chain management : strategies for reducing cost and improving service. London, Pitman.
- Hansen, M. A., B. A. Mathews, et al. (2001). A buyer's guide to B2B markets. McKinsey Quarterly33-36.
- Hoek, R. v. (2001). "E-supply chains - virtually non-existing." Supply Chain Management: An International Journal 6:(1)21-28.
- Håkansson, H. and I. Snehota (1995). Developing relationships in business networks. London, Routledge : International Thomson business.
- Kaplan, S. and M. Sawhney (2000). E-hubs: The new B2B marketplaces. Harvard Business Review. 78: May/Jun: 97-100.
- Kothandaraman, P. and D. T. Wilson (2001). "The Future of Competition." Industrial Marketing Management 30:(4)379-389.
- Kraljic, P. (1983). Purchasing must become supply management. Harvard Business Review: Sept/Oct: 109-117.
- Kumpe, T. and P. T. Bolwijn (1988). Manufacturing: The New Case For Vertical Integration. Harvard Business Review. 6675-81.
- Mahadevan, B. (2000). "Business Models for Internet-Based E-Commerce: An Anatomy." California Management Review 42:(4)55-69.
- Maruca, R. F. (2000). The Electronic Negotiator. Harvard Business Review. 78: Jan-Feb: 16-17.
- Persson, G. and H. Virum (1998). Logistik för konkurrenskraft. Malmö, Liber ekonomi.
- Petersen, K. J., D. J. Frayer, et al. (2000). "An Empirical Investigation of Global Sourcing Strategy Effectiveness." The Journal of Supply Chain Management 36:(Spring)29-38.
- Porter, M. E. (2001). Strategy and the Internet. Harvard Business Review. Vol. 79: Mar2001: 62-79.

- Porter, M. E. and V. E. Millar (1985). How information gives you a competitive advantage. Harvard Business Review. 63:149-160.
- Rayport, J. F. and J. J. Sviokla (1995). Exploiting the virtual value chain. Harvard Business Review. 73: Nov-Dec: 75-85.
- Rehme, J. (1998). Sales Coordination. Development of customer teams in ABB Sweden. Department of Management and Economics. Linköping, Linköping Universitet 188.
- Reichheld, F. F. and P. Schefter (2000). E-Loyalty. Harvard Business Review. 78: Jul-Aug: 105-113.
- Rosario, M. (2001). Efficient supply chains via e-Collaboration. Business Times. Malaysia: Feb 16.
- Segev, A., J. Gebauer, et al. (1998). Procurement in the Internet Age - Current Practices and Emerging Trends (Results From a Field Study). CMIT Working paper WP-98-1033.
- Sheth, J. N. and A. Sharma (1997). "Supplier relationships." Industrial Marketing Management 26:(2)91-100.
- Stump, R. L. and V. Sriram (1997). "Employing Information Technology in Purchasing. Buyer-Supplier Relationships and Size of the Supplier Base." Industrial Marketing Management 26:127-136.
- Timmers, P. (1999). Electronic commerce : strategies and models for business-to-business trading. Chichester ; New York, Wiley.
- Weele, J. A. v. (1997). Purchasing management : analysis, planning and practice. London, International Thomson Business Press.
- Wise, R. and D. Morrison (2000). Beyond the Exchange: The Future of B2B. Harvard Business Review. 78:86-96.
- Womack, J. P., D. T. Jones, et al. (1991). The machine that changed the world : the story of lean production. New York, HarperPerennial.