

---

## Editorial

---

### Tore Markeset\*

Centre for Industrial Asset Management,  
University of Stavanger,  
Stavanger N-4036, Norway  
E-mail: tore.markeset@uis.no

\*Corresponding author

### Uday Kumar

Division of Operation and Maintenance Engineering,  
Luleå University of Technology,  
Luleå SE-971 87, Sweden  
E-mail: uday.kumar@ltu.se

**Biographical notes:** Tore Markeset is an Associate Professor in Industrial Asset Management at the University of Stavanger and an Adjunct Associate Professor at the University of Tromsø, both in Norway. He received a BSc in Petroleum Engineering from the University of Stavanger, Norway, a BSc and MSc in Mechanical Engineering from the University of Minnesota, USA. After working for a number of years within process, mechanical and reservoir engineering in the industry, he received a PhD during the year 2003 in Offshore Engineering (industrial asset management) from the University of Stavanger. He has played an important role in establishing several master degrees as well as master degree courses in industrial asset management in the University of Stavanger and the University of Tromsø. His research interests include: industrial services (product support, innovation, strategy development, sourcing strategies, contractual relationship performance) and industrial asset management (operations, maintenance and support management, design for regularity – including reliability, availability, maintainability, and supportability). He is a Board Member at the Center for Industrial Asset Management, at the University of Stavanger. He has published more than 60 papers and reports in international journals and conference proceedings and has served as an *ad hoc* reviewer for several journals and conferences.

Uday Kumar received his BTech from BHU, India, during 1979. After working for six years in Indian mining industries, he joined the postgraduate programme of Luleå University of Technology, Sweden, in 1986 and obtained a PhD in the field of Reliability and Maintenance during 1990. He worked as a Senior lecturer and an Associate Professor at Luleå University of Technology. In 1997, he was appointed as a Professor of Mechanical Engineering (Maintenance) at Stavanger University College (now University of Stavanger), Stavanger, Norway. Since July 2002 he has taken up the position as Head of The Division for Operation and Maintenance Engineering at Luleå University of Technology, Luleå, Sweden. His research interests include equipment maintenance, maintenance strategy, reliability and maintainability analysis, product support, life cycle costing, risk analysis, system analysis, maintenance performance measurements, etc. He is a Member of editorial boards and a Reviewer for a number of international journals. He has published more than 150 reports and papers in international journals and conference proceedings.

## 1 Introduction

Industrial Business-to-Business (B2B) services are becoming increasingly important as the market is becoming more globalised and competitive. At the same time, industrial products used in industrial production and manufacturing plants are becoming more advanced and complex and often involve integration of mechanical and electrical components that are controlled by the usage of sensors, electronics and software. Users of such products often require support services from the manufacturers to achieve performance targets as well as to reduce maintenance downtime and to predict failures in advance. The product manufacturers are thus more involved than before in supporting their customers in, for example, diagnosing failures, predicting performance and customising the product to the customers' requirements. As a result, more services are needed to support the products in operation and maintenance, as well as to support the customers in using the products and to recycle them at the end of life. Not only do we see that manufacturers provide after sales services, but they also are providing before sale services as well as services during the sale. However, in providing industrial support services to assist their customers in improving their product performance, many companies are facing difficulties in managing the transition from being a manufacturer to becoming both a manufacturer of highly specialised products as well as a provider of highly specialised services.

Companies are now choosing new and innovative sourcing strategies for sourcing non-core activities and are often entering into various types of B2B relationships compared to those in the past. Industrial services are more than intangible deeds, processes and performances. A variety of technology and software is not only used as a means or enabler to deliver the service products, but also increasingly constitutes a part of the service content. As such we find that the services are increasingly based on both knowledge and technology and that it is difficult to separate them. However, many of these companies need help in becoming more innovative and to create product and support services that give a competitive edge based on strengths and market opportunities.

The focus of this Special Issue of *IJSTM* is on the development of services needed to support capital-intensive industries that require advanced and complex production facilities and industrial systems, machines, equipment, software and control systems. In this type of industry, advanced knowledge and technological support services related to engineering design, maintenance, modification, modernisation, operation, removal activities, etc., are needed to reach performance goals and to be competitive.

This Special issue, consisting of five papers is expected to contribute towards a better understanding of industrial B2B services and will stimulate new arenas of thinking in industrial services management.

The first paper by Panshef, Dörsam, Sakao and Birkhofer proposes a new concept for business-driven service development of production value-chain-oriented service contents. This paper focuses on the commercial viewpoint of large-scale production processes, in particular for the printing industry, and presents a 'two channel service model' which can be used to effectively generate business process-driven service bundles and to optimise production processes based on value-orientation and to provide a strategic customisation of the customer's business. As a result of this risk sharing, both the manufacturer and the service provider can profit as long as the provider is able to create and structure appropriate service contents.

In the second paper Davidsson, Edvardsson, Gustafsson and Witell identify discuss five themes important to manufacturing firms offering services based on an empirical study in the Swedish pulp and paper industry. This paper reveals relevant examples of real-life challenges which manufacturing firms are facing in developing service concepts. This paper discusses challenges in five themes which include

- 1 the concept service
- 2 finding the right mix of goods and service
- 3 business models
- 4 technology based services
- 5 organising for service delivery.

In the third paper, Kowalkowski, Brehmer and Kindström develop a typology for industrial service offerings; namely,

- 1 inter-relating service scope (degree of bundling)
- 2 service focus (level of customer integration)
- 3 service process interfaces.

Furthermore, they discuss the impact of information and communication technology on these three service dimensions. They also identify requirements related to the expansion and internationalisation of services.

In the fourth paper, Gebauer explores differences in how organisational structures trigger the service business in product-oriented companies. Based on a survey among manufacturing companies, this paper finds that separating the service business from the product division significantly enhances the extension of the service business and that companies making that separation achieve a higher share of service revenue, service orientation in the business strategy, corporate culture, human resource management, and total offering than companies integrating the service organisation into product business.

The fifth paper by Panesar and Markeset studies the industrial service innovation process and identifies influencing factors based on a literature survey and a case study performed in the Norwegian oil and gas industry. In this paper, they map factors motivating innovation, various mechanisms used in innovation processes and challenges faced by the industry. The case study identifies and validates a number of attributes related to the factors influencing the industrial services innovation process.

Overall, this Special Issue covers different aspects of development of industrial B2B services and service innovation processes. We hope that this Special Issue will provide researchers with some overview of the research currently performed with respect to industrial B2B services as well as with new ideas for further research.

We would like to express our sincere thanks to the reviewers of the Special Issue. Without their inputs, it would have been difficult to ensure the quality of the papers included in this issue. We would also like to thank the Chief Editor of *IJSTM*, Dr. M. Dorgham, for his valuable support at various stages in bringing out this Special Issue.