Service Innovation: A Multi-Disciplinary Approach

Bart Nieuwenhuis

University of Twente, School of Management and Governance
Enschede, The Netherlands
l.j.m.nieuwenhuis@utwente.nl

Abstract. The market service share in Western European economies is growing at cost of agriculture and manufacturing. The success of these economies is more and more depending on the success of their service economy. The majority of the jobs, GDP and productivity growth depends on service innovation. The service sector accounts for more than two thirds of deployment and Gross Domestic Product (GDP) and Gross Value Added (GVA). During the last decades, the services sector is the only economic sector that has generated jobs. New, innovative services are the major source of economic growth in the years to come. The introduction of new services to the market is one of the major challenges for service companies in western economies.

Information and communication technology can be an enabler and a driver for service innovation. The penetration of the Internet and mobile phones are examples of these developments. These developments also illustrate the globalization of previously national service markets. Consequently, the scale at which services can be deployed is unprecedented.

However, service innovation is a complex process and certainly not only driven by technological advances alone. In general, service innovation is multi-dimensional and requires besides technological changes also new or adapted service concepts, new ways of interactions with customers and suppliers and new or changed processes within the organization of service providing companies. Research shows that innovation in the service company differs from innovations in a manufacturing company in various ways.

Companies are heading for a more systematic approach to develop new services, but have difficulties to find employees with the right mix of competences. Policy makers are developing innovation programs that stimulate service innovation, but have limited knowledge on service innovations. The academic institutes and research organizations have difficulties to conduct research programs due to their mono-disciplinary organization structure.

In this keynote lecture, we present the results of a collaborative project where service companies, research organizations and governmental organizations have developed a multi-disciplinary, multi-sector program to stimulate service innovations. We give an overview of the various dimensions that can be used to elaborate on services and service innovation. We also present a service innovation research agenda based on the results of interviews expressing the needs of more than thirty service companies in The Netherlands.

Brief Biography

Bart Nieuwenhuis is part-time professor at the School of Management and Governance at the University of Twente. He is member of the Research Group Information Systems and Change Management (ICMS), holding the chair in QoS of Telematics Systems. He is working as advisor and consultant for his own consultancy firm K4B Innovation.

His research focuses on generic service provisioning platforms including Quality of Service mechanisms. Application domains comprise telemedicine as well as billing and payment services. His research interests include service innovation and business modelling. Bart Nieuwenhuis supervises PhD students and publishes scientific articles and conference papers on services provisioning platforms and middleware technologies for Quality of Service and Context Awareness. Bart Nieuwenhuis is chairman of the innovation-driven research programme Generic Communication, part of R&D programmes funded by the Ministry of Economic Affaires.

For K4B Innovation, Bart Nieuwenhuis works as an advisor to The Netherlands ICT Research and Innovation Authority. He was one of the initiators of EXSER, a centre of service innovation in The Netherlands. This centre is currently founded and is expected to start in the second half of 2008. The centre is sponsored by various large, innovative service companies and governmental organizations in The Netherlands.

Before joining the ISCM group, Bart Nieuwenhuis was part-time full professor at the Architecture and Services of Network Applications (ASNA) group within the Faculty of Electrical Engineering, Mathematics & Computer Science (EEMCS) of the University of Twente. He joined the ASNA group in Twente after a period of five years at the University of Groningen, where he was Tele-Informatics professor at the Computer Science Faculty.

Before starting his own company, he worked more than 20 years for KPN Research, the R&D facility of KPN, the telephony and Internet market leader in The Netherlands. He served as manager of R&D departments and Head of Strategy of KPN Research. Bart Nieuwenhuis worked on behalf of KPN for the European Institute for Research and Strategic Studies in Telecommunications (EURESCOM) in Heidelberg and was leader of various international, cooperative projects of European public network operators. Bart Nieuwenhuis holds a PhD in Computer Science and a MSc (cum laude) and BSc in Electrical Engineering, all from the University of Twente.