

Emerging Electronic Markets: Economic, Social, Technical, Policy and Management Issues

The Department of Management Science, University of Strathclyde and the Institute for Information Management, University of St. Gallen organised a symposium at Ross Priory, Scotland to bring together researchers from various European countries to discuss current issues in the development of electronic markets as well as future perspectives and areas research.

The aim of the workshop was to develop an understanding of electronic markets from different economic and social perspectives and to identify antecedents,

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enablers and constraints for the evolution of electronic markets. From a technical perspective the concern was to understand the way standards facilitate the diffusion and adoption of electronic markets. Managerial issues focussed on the strategic rationale of coordination decisions: why are hierarchical configurations, networks or market transactions chosen and how are they combined.

Beat Schmid, University of St. Gallen, started with a visionary statement about the future of electronic markets. By using the analogy of the development of transport infrastructures, he argued that electronic markets will provide a decentralised, federalistic infrastructure for electronic commerce, comparable to a system of streets rather than railroads. With only limited regulations a huge number of pluralistic, interrelated forms of commerce will develop, business and consumer markets will be able to use similar platforms. The development of major new infrastructures pose significant difficulties in forecasting the speed and impact of diffusion. Therefore, analytic research has to be complemented with prospective and even constructive elements.

After this outline of possible developments, *Juliet Webster*, University of East London, questioned the move to the market hypothesis as well as the forecast that EDI will foster cooperative interorganizational relationships. Using empirical evidence from Ford Europe, she showed that electronic linkages can be used and are used to strengthen and reinforce ex-

isting dependencies and power relations.

Chris Holland, Manchester Business School, pursued this argument further and emphasised the coordination strategy of companies as a key to understanding the impact of IT on industrial organisation. Based on evidence from business markets he put forward the mixed mode proposition which says that companies build interorganisational arrangements that combine different governance forms. Hierarchical and market-like coordination tactics complement each other and combinations of both are designed to benefit from the advantages of close cooperation and reduce dependency at the same time.

Karsten Kärcher, University of Strathclyde, presented a thorough analysis of the European tour operator market and two current trends: on the one hand, the degree of concentration and integration within the value system of the sector is increasing while, on the other hand, small suppliers are engaged in different forms of cooperative arrangements in order to counter the pressure of large suppliers and to gain economies of scale.

Kai Reimers, Bremen University, emphasised the institutional and regulatory pre-conditions for the emergence of electronic markets. He specified rules with respect to products, partners and contracts that are a prerequisite for electronic markets and scrutinised potential benefits for economic actors that invest into development of new institutional regimes.

This mainly institutional line of argument was further pursued by *Hans Niggli*, Ludwig-Maximilian University of Munich, who focused on the development of standards, in particular the role of EDI standard play as a precursor to the development of electronic markets.

Roger Bons, Erasmus University, is involved in the development of Open EDI, an ISO initiative that aims to reduce the

complexity in the development of inter-change agreements. The intention is to focus on the pragmatics of EDI through conceptualising a level of transactions which is capable of representing different business transactions. He presented a Petri-net based CASE tool that is used

for the modelling and analysis of inter-organisational transactions.

Stefan Klein, University of St. Gallen, presented a framework for a coordination strategy that emphasised the embeddedness of coordination decisions in structural, relational and resource-oriented

contingencies and depicted a rich set of configuration options in terms of positioning within markets and networks, combining different coordination forms and designing multiplex interorganisational relations.

Based on case studies of interorganisational systems (IOS), *Angèle Cavaye*, Technical University Delft, extended the concept of user participation that has been mainly used in the context of internal systems and discussed different ways of involving (potential) users of electronic markets. The hypothesis is that participation can improve the functionality, user friendliness and ease of implementation. However, the participants and the modes of participation have to be selected and combined depending on the respective needs of the project.

Perspectives

During intense discussions over two days, a number of voids and areas of future research became apparent:

1. There is an obvious deficit of methodological discussion in the area of IOS research issues. While case studies are crucial to understand and reconstruct current organisational forms, it remains unclear whether they are sufficient to give a valid forecast for the development of new market forms given the volatile and innovative context we are facing at present.
2. Further conceptual work is required, particularly with regard to coordination forms, coordination mechanisms, different forms of transactions, and layers of institutional arrangements.
3. The distinction between consumer and business markets appears to be important. However, this distinction raises numerous new questions; how will changes in consumer markets affect the structure of the provision of services and the structure of production, what are the interdependencies between the two markets?
4. Finally, the topic of the emergence of electronic markets raises the question to what degree this process can be interpreted as a path-dependent development from the introduction of EDI to electronic markets, and to what degree we will rather see the development of revolutionary infrastructures which use existing standards but emerge faster than the traditional standardisation processes.

The original papers presented at Ross Priory will be published in the working papers series of the Institute for Information Management of the University of St. Gallen. ■

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