Lessons From Managerial Theories for Improving Virtualness in Electronic Business

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Abstract

Electronic business and virtual organisations are important research topics in the IS research community today. At the same time these research topics are very appropriate for interdisciplinary research. The panel aims:

• presentation of lessons from managerial theories for improving organisational virtualness;

• exploration possibilities for interdisciplinary oriented research forum of the phenomenon virtual organisations in electronic business.

Chapter 1 discusses electronic business and the role of information and communication technology (ICT) in changing fundamentally electronic business transaction patterns between economic actors. New intra- and inter-organisational structures are emerging, known under labels like virtual organisation, virtualisation and organisational virtualness. These emergent virtual organisational structures will be considered as a challenge for (continuous) transformation. Chapter 2 gives an overview of the panel presentations of different approaches of change (management) found in managerial literature and their lessons for virtual organisations. Lessons are presented from strategic choice led, improvisation or market led, network interaction led, stakeholders led and evolutionary stage led concepts of change.

1 Introduction: Organizational Virtualness and Electronic Business

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1.1 Objective and Structure of the Paper

Electronic business and virtual organisations are important research topics in the IS research community today. At the same time these research topics are very appropriate for interdisciplinary research. The panel aims:

• presentation of lessons from managerial theories for improving organisational virtualness;
• exploration possibilities for interdisciplinary oriented research forum of the phenomenon virtual organisations in electronic business.

Chapter 1 discusses electronic business and the role of information and communication technology (ICT) in changing fundamentally electronic business transaction patterns between economic actors. New intra- and inter-organisational structures are emerging, known under labels like virtual organisation, virtualisation and organisational virtualness. These emergent virtual organisational structures will be considered as a challenge for (continuous) transformation. Chapter 2 gives an overview of the panel presentations of different approaches of change (management) found in managerial literature and their lessons for virtual organisations. Lessons are presented from strategic choice led, improvisation or market led, network interaction led, stakeholders led and evolutionary stage led concepts of change.

1.2 Definition of Electronic Business

Electronic business is in this paper considered as a general comprehensive term and is defined based on Wigand, Picot and Reichwald (1997) and Wassenaar and Swagerman (1998) as:

"application of information and communication technology to enhance or redefine any form of resource exchange between firms and their customers, suppliers or other business partners governed by dedicated intra- and inter-organisational structures and general (inter)national agreed institutional arrangements".


1.3 ICT enabled business transaction patterns and organisational virtualness

In the 90’s firms are facing new developments like globalisation, economical, political and technical unpredictability, world-wide competition and co-operation on the market place, mass customisation and customer demands for shortening time to market (Gartner, 1991). Companies have to improve their responsiveness (flexibility) on global markets. Electronic business enforces —by introducing quite new business transaction patterns between firms and their partners— an
ongoing reshaping of intra- and inter-organisational structures. At one side, organisations are internally broken up in small self-containing business units co-ordinated by quasi-horizontal market mechanisms. On the other hand, organisations are externally integrated in an interdependent network co-ordinated by quasi-vertical hierarchical mechanisms. These new emergent intra- and inter-organisational forms are described in literature under labels like network organisation (Miles and Snow, 1986), intelligent enterprise (Quinn, 1992), associations (Wassenaar, 1995), virtual value chains (Benjamin and Wigand, 1995), virtual organisation (Sieber, 1996), and electronic markets and electronic hierarchies (Malone e.o. 1997). Virtual organisations will be considered as continuous transforming intra- and inter-organisational structures embedding and controlling communication processes within and between companies consisting on a portfolio of vertical and horizontal co-ordination mechanisms for governance of new electronic business transaction patterns. Structures are considered as conditions and constraints embedding processes.

1.4 Organisational Virtualness

These new virtual organisational forms —shaping fundamental changes in the commercial, physical and financial processes and their underlying information and communication processes— are enabled by new ICT applications. Especially, ICT enlarges the range and reach of information exchange between economical actors by a standardised technical ICT infrastructure facilitating new forms of communication in commercial, physical and financial logistic processes that support electronic business transaction pattern within and between companies (Keen, 1991).

1. The (intra- and inter-organisational) commercial process patterns, like identifying trade partners and negotiating contracts, have to be redesigned by implementation of telecommunications networks together with multimedia facilities for enhanced product presentation and specification, like Internet and World Wide Web. New concepts like Efficient Consumer Response (ECR) (Coopers and Lybrand, 1996), Electronic commerce (Kalakota and Whinston 1997) and Electronic markets (Bakos, 1991) can be realised. There is a shift from physical markets and value chains (place) to electronic or virtual markets and virtual value chains (space) (Rayport and Sviokla, 1995).

2. The (intra- and inter-organisational) physical production and logistic processes like distributing, transport and warehousing are becoming reengineered by a new breed of standard software packages like Enterprise Resource Planning (ERP) and Operating Resource Management Systems (ORMS). This software together with the breakthrough of Internet’s open standards and a new breed of information brokers has given the way to the virtual factory: a community of dozens, if not hundreds of factories each focused on what it does best, all linked by elec-
Electronic networks that would enable them to operate as one-flexible-and-inexpensive regardless of their locations.

3. The (intra- and inter-organisational) financial logistic processes —reflecting the money or fund flow in combination with the flow of goods and services— are becoming more and more tightly integrated. Banks will no longer be able to generate interest-based revenues and they will in the future charge only on the volume of transactions, as the trend towards just-in-time money develops (Holland et al 1995). Virtual banks will emerge just like virtual factories (Swagerman and Wassenaar, 1998).

Basically, organisational virtualness is the responsiveness of intra- and inter-organisational structures on new (electronic) business developments determined by the interdependency of four elements:

1. opportunities for new electronic business network transaction patterns;
   • contracted in virtual markets and value chains (electronic commerce);
   • produced in virtual factories (electronic physical logistics);
   • accounted in virtual banks (electronic financial logistics);
2. enabling portfolio of ICT applications;
3. controlling and integrating ability of electronic business management
4. intra- and inter-organisational structures seen as conditions and constraints.

1.5 Improving Organisational Virtualness as a Challenge of Change

(Continuous) transformation and adaptation of intra- and inter organisational structures are needed in order to facilitate over time new electronic business transactions patterns and the belonging commercial, physical logistics and financial logistic process patterns and their underlying communication processes enabled by emergent ICT capabilities. Management science is a source of interdisciplinary approaches to electronic business problems (e.g. Gebauer, 1996). Therefore we will review different approaches of change (management) in managerial theories and summarise their lessons for improving organisational virtualness of intra- and inter-organisational structures.

The following managerial theories will be discussed:
• strategic choice led theories
• improvisation or market led theories
• network interaction led theories
• stakeholder led theories
• evolutionary stage led theories
References


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2 Lessons from Strategic Choice Led Theories

Arien Wassenaar

No single issue has so dominated the attention of top managers, consultants and management theorist as the subject of corporate strategy. In a vast outpouring of writing on the subject during the last forty years management theorists have come up with many alternative views. Soon after the second world war, when a new class of professional managers began to start for ideas about how to run big companies the original view of strategy was borrowed from the military. Baron von Clausewitz writing his classic work "On War" for the German General Staff stated that the most effective general concentrates his forces on the few significant battles. Managers still talk about attacking markets and defeating rivals.

By the sixties corporate strategy had come to mean a complex plan based on detailed forecasts of economy and specific markets. This approach to strategy fell into disrepute during the 1970's. The two sudden oil price rises also meant that many firms had to tear up their plans and start again. However, this is not to say that forecasting is useless in a world of rapidly changing technology. Forecasting can be useful but only in certain ways -not as a driver of strategy.

Then in 1980's Porter launched his book "Competitive strategy". The structural analysis of industries instead of being a specialised planning tool for forecasting evolution over considerable periods becomes useful as a capability to quickly understand the continuously evolving nature of the industry. He argued that a firm's profitability was determined by the characteristics of its industry and the firms' position within it, so these should also determine its strategy. Applying the