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Andras Nemeslaki

*International Management Center*

Hee-Dong Yang

*Case Western Reserve University*

Michael Ginzberg

*Case Western Reserve University*

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# INFORMATION SYSTEMS IMPLEMENTATION IN HUNGARY: FOUR BOUNDARIES TO IS ADOPTION

**Andras Nemeslaki**

International Management Center  
Budapest, Hungary

**Hee-Dong Yang**

**Michael J. Ginzberg**

Weatherhead School of Management  
Case Western Reserve University

Information systems activity by organizations in the emerging market economies of Central and Eastern Europe (CEE) appears to be experiencing limited success. Companies ranging from the residual state-owned enterprises to newly established divisions of Western multinational companies are finding it difficult to put new information systems into effective use.

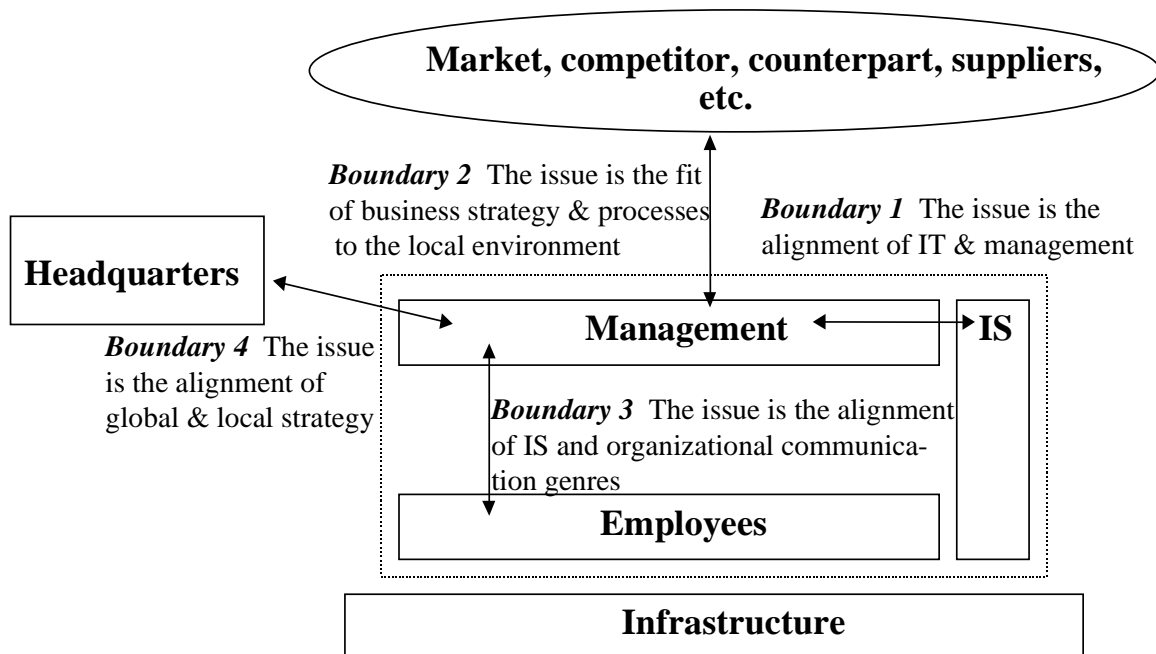
Most often, the reason suggested for the lack of IS implementation success in CEE organizations is the lack of basic infrastructure. Observations of a number of companies, however, suggest that other more fundamental problems often prevail. These organizations lack the capacity to absorb and effectively integrate new information systems and technologies. The lack of infrastructure represents the most visible, but likely not the most significant, challenge facing IS adoption in CEE.

This paper reports the results of initial case studies of IS implementation efforts in 13 Hungarian organizations after the collapse of the centrally planned economy in 1989. The cases focus on two extreme types of organizations: indigenous Hungarian state-owned companies (SOC) and divisions of Western-owned multinationals (MNC) operating in Hungary.

Figure 1 illustrates four boundaries to IS adoption emerging from these case studies. Recent literature exploring IS adoption in Western (primarily US) organizations has focused on boundary 1, the alignment between IT and line management (e.g., Henderson and Venkatraman 1993). One way to conceptualize the fit at that boundary has been in terms of absorptive capacity (Boynnton et al. 1994). Boundary 4, the alignment between headquarters and divisional management has also been recognized as important in the context of multinational corporations (e.g., Ives and Jarvenpaa 1991; Jarvenpaa and Ives 1993).

The case studies suggest that for organizations operating in transitional economies, two other boundaries may be equally important. Boundary 2 focuses on the fit between the organization and the other institutions in the local market environment. Is there a common understanding of the economic and operational *ground rules* between the organization and its suppliers, competitors, customers, regulators, etc.? Finally, boundary 3 lies within the firm between management and employees. As organizations complete the transition to a market orientation, participants need to develop a new mind set. Often, management makes this transition before lower level employees, creating the potential for a communication gap.

A gap at any one of these four boundaries can result in pathological patterns of information usage which threaten the successful implementation of IS. Each of these boundaries, however, poses a different nature of threat. These initial cases suggest that state-owned companies and multinational companies are likely to experience trouble at different



**Figure 1. Four Boundaries for IS Adoption**

boundaries. For SOCs, the problems are most likely at boundaries 1 and 2, while for MNCs, boundaries 3 and 4 pose the greatest threats. Future work in this research project will test hypotheses developed from these case studies in additional Hungarian organizations as well as organizations in other CEE countries.

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