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Prof. Dr. Tim Weitzel is Chair for Information Systems and Services at the University of Bamberg since 2005. His research on IT management and alignment, IT adoption, standards, outsourcing, E-Finance and E-HR has been published in journals including MISQ, MISQ Executive, EJIS, JIT, JSIS, or DSS and has been cited over 1,500 times. From about 2001 to 2004, he was one of the team establishing the E-Finance Lab.

"The E-Finance Lab has been a great breeding ground to understand and design the E in E-Finance. All best for another ten years of, as Swift said, discovery that consists of seeing what everybody has seen and thinking what nobody else has thought."

SOA what?
SOA Governance in the Services Industry

Only around one in five firms reap the anticipated benefits from Service Oriented Architectures (SOA). Industry analysts assume that a lack of SOA governance is the main reason why SOA projects fail. And, indeed, the vast majority of the literature is on technical issues, and a business value and governance view is missing. So, what do SOA governance mechanisms help to implement an effective SOA that achieves IT flexibility and reuse?

Why SOA Governance?

The SOA concept comprises the idea of a component-oriented coupling of business processes and their implementation using a new service layer. Hence, introducing SOA necessitates managing this new service layer between the existing business processes and application systems. SOA governance therefore requires finding ways to establish structures and processes and support employees to handle the new relationship between IT and process architecture.

SOA Governance Mechanisms

Our SOA governance framework draws on structures, processes, and employees/relations and is elaborated based on the generic IT governance model of De Haes and Van Grembergen (2009) and the conceptual SOA governance model by Kohnke et al. (2008). Structures are concerned with establishing new decision-making bodies (like a SOA Center of Excellence) and using standards (from criteria whether functionality should be implemented as services to design standards for system interfaces). Processes embrace Service-Level-Agreements (SLAs), service management during the service lifecycle, and service development processes. Employees/relations comprise the qualifications of involved IT employees and IT business alignment.

Results

Insights from 81 SOA-using organizations in the German service industry (US SIC codes 4,000 to 8,999) reveal that, overall, using standards, increasing the qualification of employees, and establishing clear service management and development processes are the most effective SOA governance mechanisms.

Implementing new, dedicated decision-making bodies for SOA hampers organizations in achieving higher degrees of IT flexibility and reuse. Our analysis supports the view that establishing new decision-making bodies specifically for SOA is not a necessity in earlier phases of SOA implementations. The negative statistical relationship indicates that adding more governance might even reduce effectiveness. By implementing additional decision-making bodies for SOA, decision making complexity increases and eventually hampers IT flexibility and reuse. As additional effect that also shows in case studies, departments might start working around over-governed SOAs and try to hide local SOA initiatives to avoid additional decision-making bodies that (from the department's perspective) add delays and confusion without contributing anything positive.

Using standards, service management processes, qualifications of employees, and IT/business communication show the largest effects on IT flexibility. These four mechanisms are important as they provide a solid base for other (maybe later implemented) mechanisms. Thus, organizations should focus first on implementing these four mechanisms to support the entire SOA development as they affect the overall SOA implementation positively.

It is more difficult to increase scalability than the other dimensions of IT flexibility: Only the use of standards, employee qualifications, and better IT business communication are effective mechanisms to increase scalability. Increasing scalability by adopting SOA is realized mainly on the technical layer and not from using SOA governance processes.

For more results and references, see: Joachim, N.; Beimborn, D.; Weitzel, T.: The Impact of SOA Governance Mechanisms on SOA Effectiveness. Forthcoming in: Journal of Strategic Information Systems, 2013.