Exploring the Influence of Service-oriented Architectures on Organizational Agility – A Case Study

Research-in-Progress

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Abstract

Companies increasingly face turbulent and dynamic environments characterized by mostly unforeseeable changes. A viable strategy to survive in such environments is to strengthen organizational agility, which denotes the ability to quickly cope with continuous unanticipated change and to take advantage of opportunities in the environment. Service-oriented architecture (SOA) accompanied by related organizational mechanisms have been identified as promising means to shape organizational agility. However, research concerning SOA’s impact on organizational agility lacks an in-depth understanding on how agility is enabled. Applying case-based research, this research-in-progress investigates this relationship in an in-depth, intensive manner, thus providing the opportunity to refine the concept of organizational agility in terms of explaining how it can be achieved. We present and discuss preliminary findings on success stories positively relating SOA and organizational agility.

Keywords: Organizational agility, Service oriented architecture (SOA), Case study/studies, Critical Realism, Telecommunications, Agile enterprises
Introduction

A viable strategy for companies striving to survive in dynamic business environments is to strengthen their organizational agility (Overby et al. 2006; Trinh et al. 2012), which senior information technology (IT) executives see among their top three concerns (Luftman and Derksen 2012; Luftman and Zadeh 2011). While meaning of agility in organizational contexts is not entirely understood yet, a recurrent theme is to quickly cope with continuous unanticipated change in order to survive unprecedented threats as well as to embrace change and to take advantage of opportunities in the business environment (van Oosterhout et al. 2006). Since information systems (IS) are alleged to strongly influence organizational agility of contemporary businesses (Sambamurthy et al. 2003) – referred to as the concept of IS agility (Choi et al. 2010; Galliers 2007) – the question is how organizations can ensure that IS attain a form of agility to support organizational agility. The literature is inconclusive regarding this relationship since IS are seen as both enabler and inhibitor of agility (Trinh et al. 2012). Thus, investigating this relationship needs to account for the context and provide a holistic picture.

Considering previous IS research, service-oriented architecture (SOA) accompanied by its related organizational mechanisms pose an opportunity to shape agile IS and ultimately organizational agility (Barry 2003; Bieberstein et al. 2006; Erl 2004, 2005; Hagel and Brown 2001; Kraftzeg et al. 2004; Merrifield et al. 2008; Pulier and Taylor 2005). Becker et al. (2009) identify agility as most frequently mentioned value potential of SOA. However, this relationship between SOA and organizational agility is not entirely understood. Previous SOA research primarily deals with technical topics – often combined with specific forms of SOA implementation technologies like web services (McGovern et al. 2003; Umapathy and Purao 2007). Recently, researchers have begun to look into business benefits and organizational impact of SOA, but empirical research is still scarce (Joachim 2011; Viering et al. 2009) and lacks an in-depth understanding on how these effects are generated. Therefore, our research objective is, while providing first-hand empirical data from a case-based research approach, to contribute to the endeavor of assessing how aspects of SOA influence organizational agility. Accordingly, we pose the following research question:

How do service-oriented architectures influence organizational agility?

Research focusing on explaining this how question corroborates experts’ proposition of SOA being a driver of agility and complements studies indicating that relation. Aiming to arrive at robust theory for prediction, strong explanations of investigated phenomena are prerequisite (Gregor 2006). Case-based research can be of use to fill gaps in existing theory (Siggelkow 2007).

The remainder of this research-in-progress is organized as follows. Next, we describe the theoretical background on organizational agility and its ties to SOA. We then describe our research approach. In the two final sections, we first present our preliminary findings and finally discuss these in light of expected outcomes while providing an outlook on further steps and our study’s contribution.

Related Work

The idea of agile business originates from manufacturing and is proposed as a means to maintain competitive advantage in increasingly dynamic business environments that are characterized by uncertainty and turbulence (Sharifi and Zhang 2001). In contrast to lean concepts associated with efficient use of resources, agility is concerned with quick responses to ever-changing environments and being productive at the same time (Dove 2001). Agility shares many similarities with the concept of flexibility, which allows organizations to successfully handle anticipated changes (van Oosterhout et al. 2006). Whereas the terms agility and flexibility have been synonymously used in the literature (Conboy 2009), we emphasize their conceptual difference since agility extends flexibility by allowing to manage not only foreseeable changes but also unanticipated ones (Overby et al. 2006; van Oosterhout et al. 2006).

Lack of clarity prevails regarding the common understanding of the term agility in IS literature (Trinh et al. 2012; van Oosterhout et al. 2006). Various notions exist that emphasize different aspects of organizational agility and define the concept on different levels of abstraction. Overby et al. (2006) define agility as ability to sense environmental changes and readily respond to those. Furthermore, “agility is best viewed as applying to episodic events precipitated by environmental change” (Overby et al. 2006, p. 122). The two components of agility (i.e., sensing and responding) apply to both strategic and operational
issues and are therefore established by sensing and responding capabilities of the entire organization (Overby et al. 2006). Consistently, two types of agility can be differentiated, namely market capitalizing agility and operational adjustment agility (Lu and Ramamurthy 2011). While the former focuses on an entrepreneurial mindset, the latter emphasizes speedy execution/implementation within the organization. In contrast to Overby et al. (2006), who see agility as outcome provided through several organizational capabilities, Sambamurthy et al. (2003) consider agility as one of several significant organizational capabilities, which eventually affects the quality of organizations’ competitive actions. A reoccurring theme of agility is to quickly cope with continuous unanticipated change in order to survive unprecedented threats as well as to embrace change and to take advantage of opportunities in the business environment (van Oosterhout et al. 2006). Throughout our research, this rather broad notion of agility will be the working definition to cover a likewise broad context of possible organizational implications related to agility.

Previous research considering means to enable organizational agility has identified SOA – accompanied by its related organizational mechanisms – as an opportunity to ultimately shape organizational agility (Barry 2003; Bieberstein et al. 2006; Erl 2004, 2005; Hagel and Brown 2001; Krafzig et al. 2004; Merrifield et al. 2008; Pulier and Taylor 2005). Becker et al. (2009) identify agility as most frequently mentioned value potential of SOA. Based on the IS paradigm of service-oriented computing (Papazoglou and Georgakopoulos 2003), SOA encapsulates elements of an IS architecture into interoperable services (Erl 2005). Such services “represent the fundamental element for developing applications” (Baskerville et al. 2005, p. 4) and are architectural elements encapsulating business or application functionality (Ren and Lyytinen 2008). Since SOA comprises several design principles and is not bound to any particular implementation technology (McGovern et al. 2003), it can be seen as an architectural style (Erl 2005; Fielding 2000). To implement SOA in its entirety, organizations are required to thoroughly adopt the principles modularity of services, loose coupling of services, and use of standards (Müller et al. 2010). Modularity requires services to be self-contained and aggregated into an application by few well-known dependencies. The degree of dependencies between services refers to the degree of their coupling. The design principle of loose coupling requires that there are as few dependencies between services as possible and that services are ideally connected by a single well-defined interface (Brown et al. 2005; Krafzig et al. 2004). Adhering to this principle enables a service consumer to be independent from the actual implementation of a used service. The use of standards (e.g., open standards for interfaces or data representation) supports the goal of interoperability and integration (Jardim-Goncalves et al. 2006), especially in heterogeneous environments or when different implementation technologies are used.

In contrast to the theoretical view of applying SOA in a holistic way, practice rarely complies to all these principles, that is, SOA is usually fragmented and selectively implemented (Hirschheim et al. 2010). This fragmented adoption might result from inherently varying degrees of compliance with design principles of particular SOA implementation technologies; the most prominent being web services (Luthria and Rabhi 2009; McGovern et al. 2003). However, effective SOA implementations must also be business-oriented (Ren and Lyytinen 2008). Business-oriented services are expressed in business-related terms and can be incrementally modified as business processes change (Bieberstein et al. 2006). The business context determines the appropriate level of granularity; that is, the domain scope that a specific service implements. Aligning services to the business context relates to the task of achieving a high potential for service reuse and concurrently keeping services rather coarse-grained – ultimately holding the promise of enabling organizational agility.

Literature pointing to the enabling role of SOA for organizational agility is mainly organized in (practitioner) monographs or edited books (Antoniades 2014; Barry 2003; Devos et al. 2014; Erol 2004, 2005; Erol et al. 2014; Krafzig et al. 2004). However, this body of literature represents the majority of conceptual literature on the proposition of SOA being a major driver for organizational agility. Previous empirical studies focus on technical topics and lack a business perspective (Viering et al. 2009). Accordingly, the relationship between IS and organizational agility is inconclusive in literature (Trinh et al. 2012). Taking a technical perspective, IS are considered complex technical artifacts that stabilize and increase efficiency of business processes, albeit discourage modifications in the face of change (Newell et al. 2007; Tallon 2008) and hence inhibit organizational agility. Contrarily, IS are considered as social-technical systems which can be leveraged to support organizational agility and are inseparable from business strategies (Sambamurthy et al. 2003). So far, few empirical studies validate the proposition of SOA being a major driver for organizational agility (Joachim 2011). Within a literature review in major IS
research outlets, only eight SOA-related studies have been identified to empirically investigate agility as a business benefit (Joachim 2011).

Previous case-based research primarily investigates selected SOA themes and related benefits with the help of secondary data or industry cases (Krautz et al. 2004; Müller et al. 2010; Yoon and Carter 2007) or focuses on generalizability applying multiple case designs (Baskerville et al. 2010; Baskerville et al. 2005; Schelp and Aier 2009). Consequently, there is lack of case-based research investigating this relationship in an in-depth, intensive, and holistic manner. However, Joachim et al. (2013) in their quantitative study reveal that SOA governance mechanisms are required to achieve four specific agility-related benefits: modularity, scalability, integration, and service reuse. In this context, modularity (cf. Byrd and Turner (2000, p. 171) for a definition) refers to the ease of managing and changing modular architectures by separating dynamic logic (process) from static logic (service implementation) where “dynamic logic is more likely to be subject to changes and can be adapted more easily” (Becker et al. 2009, p. 7). Scalability is primarily achieved by the technical layers of SOA and less by governance mechanisms (Joachim et al. 2013). For instance, intensively accessed services can be distributed across multiple computing nodes. A common finding is an increased potential for integration (e.g., of internal resources like legacy-systems) by using SOA (e.g., Augusto et al. 2009; Baskerville et al. 2010; Fink and Neumann 2009; Luthria and Rabhi 2009). Service reuse is sought to accelerate development cycles and reduce time-to-market of change requests (Baskerville et al. 2010; Becker et al. 2009; Holmqvist and Pessi 2006) and for an increased use of shared IT services, for instance, to extend organizational capabilities (Fink and Neumann 2009). Similar to the previous argument of broadening the use of shared IT services, SOA facilitates the flexibility of information access and usage within organizations (Fink and Neumann 2009). SOA invokes affinities within organizations to develop capabilities for recognized principles of software development like the aim of building for/with reuse, using abstraction to control complexity, and incrementally extending functionality (Baskerville et al. 2010; Holmqvist and Pessi 2006). It is arguable that achieving these organizational capabilities at least to some degree represents a prerequisite for SOA adoption. Empirical evidence indicates that aforementioned organizational capabilities and SOA are positively related. However, the way they shape and influence each other in detail remains unclear. Critical voices emphasize that SOA results in a more complex system landscape and, while temporarily providing agility, positive effects will not sustain without solutions beyond technical design principles (Schelp and Aier 2009). Sustainable agility needs to be achieved by explicit enterprise architecture management in form of structures, processes, and instruments to measure and enforce policies.

Concluding, the relationship between SOA and organizational agility is characterized by the elusive character of agility. The term agility can be seen as an “overarching term for several aspects” incorporating and sometimes equaling flexibility and speed (Becker et al. 2009, p. 7). Derived value potentials of agility are interrelated, mediating each other, and need to be intensively studied in respective contexts to identify underlying mechanisms. We thus choose an in-depth and holistic case study research design for our study to “sharpen existing theory by pointing to gaps and beginning to fill them” (Siggelkow 2007, p. 21).

**Research Approach**

We choose a case-based research approach. Case study research as a form of empirical research is especially useful when the investigated phenomenon is broad and complex and boundaries to its context are not clearly evident (Benbasat et al. 1987; Dubé and Paré 2003; Yin 2009). It thus successfully fits our context of SOA and organizational agility. Our case study is thereby mutually informed by two systematic literature reviews on SOA in the IS discipline (Joachim 2011; Viering et al. 2009) and our own review of literature that focuses on research on the intersection of organizational agility and SOA. Identified propositions on the relationship between SOA and organizational agility form vague, a priori theoretical constructs, which provide a scaffold for our research design (Walsham 1995). These theoretical constructs do not yet have the character of testable hypotheses and need to be enhanced with further insights. The selected research approach therefore comprises a case-based method to study the phenomenon of agility intensively as opposed to extensively (Mingers 2001). Thus, we consider a particular case to gain in-depth insights in contrast to including a large set of investigated scenarios from which to generalize in a statistical sense. Studying the particular still offers the opportunity to engage in analytical generalization (Yin 2009), which represents a common strategy in case study research (e.g., Caldeira and Ward 2002; Mähring et al. 2008; Tan and Pan 2003; Xue et al. 2008). Seeking a holistic picture and in-depth insights,
we apply a qualitative case study that is exploratory in nature in the sense that prior theory represents a starting point for our research and a guideline for our study design (Paré 2004). In the course of our study, we maintain a certain degree of flexibility in order to adjust our study’s focus if necessary. For instance, we modify our interview guidelines and revisit informants to cover potential effects of recently emerged alternative explanations or unforeseen issues. This reflexive approach contains a continuous reconsideration of the underlying research strategy and goals (cf. Mlcakova and Whitley 2004 for an example of such a reflexive approach). Therefore, our research approach reflects the non-linear character of qualitative field research resulting in rich case description and explanation in contrast to broadly generalizable implications (Darke et al. 1998; Eisenhardt 1989; Walsham 1995).

Seeking strong explanations of the investigated phenomena in a single case context, this research-in-progress is grounded on the research paradigm of critical realism. Modern critical realism as formulated by Bhaskar (1975; 1998) is positioned as an alternative to the positivist and interpretive research tradition (Wynn and Williams 2012). Elements of positivism and interpretivism are leveraged in critical realism (cf. Orlikowski and Baroudi 1991) for a definition of major IS research paradigms. Since other researchers have already engaged in an extensive discussion on its philosophical foundations and how it matches IS research (e.g., Dobson 2001; Mingers 2004), we focus our attention on the methodological dimension. Throughout this paper, we point out how our approach relates to the principles for conducting critical realist case study research (marked in italics; cf. sections Data Sources and Data Analysis), introduced by Wynn and Williams (2012) to the IS discipline: retroduction, empirical corroboration, triangulation, and explication of events, structure, and context.

**Case Selection**

We choose a single case design to ensure the necessary depth of insights by delving into the case setting and its context. Therefore, conducting a large-N study is not preferable (Ragin 1997; Walsham 1995). For the purpose of selecting our case company, we confine our relevant population to large enterprises (LEs) in the telecommunications sector. As companies in this sector rely on highly digitalized business processes and operate in rather rapidly changing and dynamic market environments (Amighini 2005; V. d. Bergh and Viaene 2012), these companies can potentially improve their performance more than others through IS innovations. Furthermore, LEs, due to their available budget, are more likely to invest into large enterprise architecture projects as they can realize benefits on a larger scale when adopting strategies like company-wide SOA implementation. This involves the opportunity to observe SOA in a more exhaustive form of adoption than in small or medium enterprises. Another substantial boundary of our case is the active usage of SOA to provide business processes. Past SOA projects can be interesting to reflect the history of SOA adoption the company has undergone. This helps to establish the historical context of the case. Our three substantial boundaries are depicted on the left side in Figure 1.

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**Figure 1: Case Selection and Data Sources**

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The case therefore constitutes the usage of SOA and its impact on organizational agility. Since organizational benefits of agility are strongly interrelated (cf. Related Work), an embedded case design is difficult to establish and not useful for this study. To avoid missing important factors, we thus choose a holistic case design (Yin 2009). Many studies assert that most companies have adopted SOA only in small parts (e.g., only in selected business units) or have limited their adoption to some promising aspects of SOA (e.g., Hau et al. 2008). Summarizing, we select a most-likely case for identifying a connection between SOA and organizational agility as the aim of our research is the explanation of how SOA establishes organizational agility.

**Case Description**

Our case company is a global leader in the telecommunications industry. It provides products and services in the fields of fixed-network, broadband, mobile, internet, and IPTV for private customers as well as solutions in the information and communication technology for business customers. Operating internationally with annual sales in excess of 50 billion €, the company employs a worldwide workforce of several hundred thousand. Several enterprise service buses have emerged in the historically grown application landscape, which is shaped by project-oriented development and merger & acquisitions. The department Enterprise Integration (EI) is responsible for development and operations of one of the major enterprise-wide SOA buses. This bus comprises a centralized service repository and has been declared as the company-wide standard for international application communication. EI is rarely in direct contact with stakeholders from the business side. An IT department acts as an intermediary that is responsible for elicitation of demands from business and implementation. The IT department commissions the development of services to EI. The department Enterprise Architecture (EA) plans the targeted IT architecture and manages the transition process.

**Data Sources**

Our study can be characterized as a cross-sectional case study (Orlikowski and Baroudi 1991) as it is mainly based on a detailed picture of the current situation at hand in the respective case and on retrospective data. We aim to combine real-time and retrospective data in our study as both data types are mutually informing and can help to validate each other. Data collection began during spring 2013 and continues throughout 2014. Data is drawn from various data sources including semi-structured interviews, informal conversations, observations, access to the company-wide intranet, articles from press, and internal documents like reports and key figures (cf. Figure 1). We aim to triangulate these data sources (Yin 2009) to gain a diverse and holistic picture of the situation (Stake 2005). Thus, we try to identify various kinds of stakeholders and collect diverse opinions on the studied phenomenon. This is achieved by interviewing both SOA experts and employees that are involved in and affected by the organizational impact of SOA initiatives. We draw our interview partners via a snowball sampling strategy (Paré 2004) – a common strategy in exploratory research (Chua et al. 2012). Our initial contact within the case company is located in the EI department. From there on, we established contact with various other SOA-related stakeholders (cf. Table 1). We aim to maximize variety in our interview partner selection. On the one hand, we interviewed department and team managers to gain a broader perspective on the topic. On the other hand, we aim to cover views that are more technical by interviewing development managers. We also include the views of former employees and external providers who may be less biased and have a different perspective. Furthermore, we interviewed several IT and enterprise architects as they are very knowledgeable about the intertwining of the technical infrastructure and organizational processes like those in the context of IT governance. So far, we concentrated on sources providing or in direct contact with company-wide SOA solutions. Initial results suggest expanding this focus to the business side (cf. Discussion and Outlook). As a broad strategy, we are tapping sources from IT over cross-departmental functions to the business side along the company’s Demand-to-Solution process. An overview of our interview partners can be found in Table 1. Interviews lasted between 40 and 80 minutes (60 minutes on average). The interview guidelines were initially pilot tested with a fellow researcher. Each interview was conducted by two researchers, with the first interviewer guiding through the interview and the second interviewer taking notes and picking up interesting lines of inquiry (i.e., investigator triangulation (Denzin 2009)). Additionally, each interview was recorded and transcribed. The transcripts were sent to the interview partners for review. They were asked to correct or clarify statements in order to increase...
communicative validity (Flick et al. 2009). Overall, we transcribed and initially analyzed 177 pages of raw interview data.

<table>
<thead>
<tr>
<th>Role</th>
<th>Department</th>
<th>Status</th>
<th>Education</th>
<th>Work Experience</th>
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<tbody>
<tr>
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<td>Enterprise Integration</td>
<td>Internal</td>
<td>Doctoral degree Computer Sciences</td>
<td>6 years in current position</td>
</tr>
<tr>
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<td>Internal</td>
<td>M. Eng. Software Engineering</td>
<td>4 years in current position</td>
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<tr>
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<td>Internal</td>
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<td>6 years in current position</td>
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<tr>
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<td>Enterprise Architecture</td>
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<td>Diploma Business Administration</td>
<td>1 year in current position</td>
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<tr>
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<td>-</td>
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<td>24 years of total experience (10 as external for the case company)</td>
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<td>Internal</td>
<td>Diploma Telecommunications</td>
<td>28 years of total experience</td>
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<td>Enterprise Architecture</td>
<td>Internal</td>
<td>Diploma Telecommunications</td>
<td>25 years of total experience (16 in current position)</td>
</tr>
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**Data Analysis**

Our data collection and analysis overlap to establish a reflexive and flexible research approach and to enable readjustments of research goals and underlying research design. All data is organized in a case study database (we use MAXQDA as coding software) and a chain of evidence is established (Yin 2009). Qualitative data analysis comprises coding methods combined with congruence analysis to find explanations that fit the observed evidence best (Flick et al. 2009; Kvale 2008; Myers 2013). Every piece of raw data is iteratively analyzed at least by two researchers to ensure inter-subjective coder reliability (investigator triangulation). Results from qualitative analysis are discussed with researchers not primarily engaged in field research to increase transparency of the analysis process and comprehensibility of drawn conclusions. To draw explanations from our analysis, we employ a form of inference known as retroduction. Retroduction can be seen as a logical argument to identify the most likely explanation and to rule out competing ones (Wynn and Williams 2012). Empirical corroboration is accomplished in two steps. First, we theorize about hypothetical mechanisms and structures which may not be empirically observable but, if existing, would produce the observed phenomena. Second, we attempt to eliminate alternative explanations by testing for their potential effects. Hence, these two steps are performed iteratively during the phases of data collection and analysis.

In our initial analysis, we focused on success stories concerning the association of SOA and agility, that is, circumstances in which SOA had a positive impact on the agility of our case company. Success stories as a starting-point provide the required richness of data to tap into the phenomena in-depth and adequately capture the episodic character of agility. We use the stories to engage in the explication of events, structure, and context. We aggregated these stories to themes in order to be able to report preliminary findings.

**Preliminary Findings**

Our initial analysis revealed manifold evidence for the responding component of organizational agility (Overby et al. 2006). Recurrent themes in the data comprise business-to-business (B2B), integration transparency, and reuse of services.

B2B commerce is a business opportunity that has recently evolved and spans business areas from providing services to partners in the wholesale sector (e.g., brokerage of fixed lines) to integrating smaller parties like start-up companies. This opportunity has been integrated in the overall business strategy and strongly promoted by the company over public channels and articles from press. One of the enterprise architects explained that the adoption of a well-defined service approach on the inside represents a prerequisite for establishing a service eco-system for external partners. Public sources vividly illustrate how the company envisions these partnerships. Other aspects mentioned by informants in this theme concern cloud computing strategies to act as an integration platform and offer external cloud solutions to
SOA helps adapting to these B2B related changes and demands in the business environment in an easier way as competencies and methods are already established.

A recurring theme mentioned by several informants is that SOA promotes transparency with regard to integration, enabling capabilities in the domains of architecture, security, and monitoring. Architectural transparency helps to integrate the application landscape, which is important in the daily work of enterprise architects. The need for consolidation and retirement of applications, which is stressed by one of the development managers, is mainly driven by the goal to reduce cost of a historically grown IT infrastructure. The modularity and loose coupling of services helps the company to consolidate functionalities of systems. The result is a less complex application landscape, which itself inhibits a higher degree of flexibility. As pointed out by a member of the EI department, a centralized service repository allows to closely monitor transactions and to react to excess loads. Such transparency also introduces mechanisms for security due to standardized communication. This finding could be corroborated by reviewing the underpinning tools with which future communication links can be modeled.

Reuse is a common theme for SOA. To enhance efficiency and save expenses, several informants described the obvious approach to standardize services that are required by a large number of applications. However, one of the development managers expresses doubts whether this represents a SOA-specific benefit, since he believes this would also be possible with monolithic IT infrastructures. SOA is advantageous when developing new products that result from an extensive integration of already available functionalities. First, SOA facilitates mash-up products, which may have not been feasible before (e.g., mere provision of combinable services encourages design of innovative products). Second, these products can be rolled out much faster or with less effort (e.g., rolling out a new product in several countries in parallel as it relies on established and reusable backend services).

The sensing component of organizational agility is far less acknowledged by informants. However, several enterprise architects refer to the enterprise-wide domain model, which is a shared view on business activities and capabilities. In the face of change, staff is able to grasp new requirements and locate responsibilities through the domain model. The domain model as an organizational capability provides a concrete tool that helps employees to make sense of new demands. In a way, this sensing capability relates to the aforementioned (reactive) transparency theme.

**Discussion and Outlook**

Due to the episodic character of organizational agility (cf. Research Approach), we trace several lines of inquiry to identify insightful success stories. Our preliminary findings therefore only represent a brief overview of selected themes. Of particular interest is the B2B theme (Plevyak and Sahin 2011) that has recently emerged in the company and which is closely coupled with the overall business strategy. The B2B theme operates on a higher strategic level compared to the case company’s SOA initiative. While tapping into the data it became evident that especially success stories linking core features of SOA to strategic levels pose a strong potential for identification of seamless chains of evidence (i.e., from technical implementation over governance and other organizational mechanisms to strategic impact or competitive advantage). Whereas some themes, which are primarily motivated from a technical perspective, prove to be dead ends as they are rather restricted to the technical domain. Therefore, we focus on pursuing the B2B theme – how SOA supports the B2B theme and how SOA’s characteristics match the strategic objectives of the B2B theme.

Since we gained access to the company through the EI department, our initial contacts represent rather technical-oriented staff. We are currently tracing the identified success stories to the business departments to complete the picture and comply with the notion of organizational agility as a company-wide phenomenon. Consistently, we expect these success stories to evolve along the process from demand to solution. Furthermore, our findings indicate that the business side is stronger involved in sensing processes due to its regular interaction with the business environment. On the business side, we expect to identify further success stories with a focus on sensing which we will in turn trace back to the related SOA departments. Our initial data indicates that this will be essential as business departments are in general unaware of the solutions provided by SOA. This strategy of moving forth and back along the Demand-to-Solution process complements our approach to an iterative data collection and analysis.
While empirical studies exist that show SOA mechanisms to improve agility-related benefits (cf. Related Work), few studies address the question of how these two concepts interact, leaving the in-depth understanding of this relationship an open issue. Our study is thus likely to contribute to extant literature since it fills the crucial gap concerning insights into how SOA influences organizational agility. Filling this gap will result in more robust theory in general as our study aims to arrive at theory for explanation, which can also be utilized to improve recent theory focusing on prediction. Identifying causal mechanisms in the context of our case company provides the opportunity to refine the concept of organizational agility in terms of explaining how it can be achieved.

References


