

A Multisourcing Maturity Model as an IT Governance Mechanism for Business Groups

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ABSTRACT

Implementing multisourcing in business groups is challenging, and linear-extension of dyadic information technology (IT) outsourcing literature is insufficient to cope with multisourcing specifics. By pursuing design science research (DSR) as the research orientation and utilizing expert interviews, action research and case studies as individual research methods, the authors propose a multisourcing maturity model as an IT governance mechanism. This article contributes in four areas: first, it derives requirements for IT governance mechanisms intended to support the implementation of multisourcing in business groups; second, it identifies the research gap by analyzing current concepts; third, it develops a maturity model; and fourth, it demonstrates the application of the model with two real-life case examples of leading financial services providers. Moreover, the maturity model provides practical guidance for coping with the challenges of implementing multisourcing by identifying the required capabilities, illustrates a desired evolution path to effectively and efficiently utilize multisourcing, and can be employed for steering multisourcing in business groups.

Keywords: *Business Group, Design Science Research (DSR), IT Governance Mechanism, Maturity Model, Multisourcing*

INTRODUCTION

In the past 20 years, information technology (IT) outsourcing has been a prominent topic in both scholarly and practitioner-related literature. In this field, multisourcing has recently been identified as an emergent sourcing approach which many large corporations are adopting

(Bapna, Barua, Mani, & Mehra, 2010; Cohen & Young, 2006; Hakkenberg, Himmelreich, Ketterer, & Woelders, 2011; Janischowsky & Schonenbach, 2009; Levina & Su, 2008; Oshri, Kotlarsky, Rottman, & Willcocks, 2009). This is manifested by a decrease in the frequency of mega-deals (outsourcing deals with a volume greater than one billion USD) under sole-sourcing and the shift towards a more selective outsourcing approach applying multisourcing

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(Huber, 2008; Mayo, Lang, & Aitchison, 2010). Multisourcing is defined as the blending of services from multiple company-internal (such as captive offshore centers) and company-external suppliers in the pursuit of business goals (Cohen & Young, 2006).

Dibbern et al. (2004) identify five major issues of IT outsourcing: (1) why to outsource, (2) what to outsource, (3) which decision process to take, (4) how to implement the sourcing decision, and (5) what is the outcome of the sourcing decision. While the first three questions have been addressed intensively by researchers in the past, the implementation process and the sourcing decision outcome require further research. Especially performance management and governance-related aspects in the context of IT sourcing decisions have been scarcely covered despite their high relevance (Busi & McIvor, 2008; Clark, Zmud, & McCray, 1995; Davis, 1996; Dibbern et al., 2004; Gottschalk & Solli-Sæther, 2005; Klepper, 1995; McFarlan & Nolan, 1995; Weimer & Seuring, 2009; Willcocks & Choi, 1995) and the extensive research that has been accomplished on IT governance in general (e.g., De Haes & Van Grembergen, 2009; Henderson & Venkatraman, 1993; Sambamurthy & Zmud, 1999; Weill & Ross, 2004). Within the fourth area defined by Dibbern et al. (2004), the major part of IT outsourcing studies deal with dyadic relationships and only little experience-based research has been applied to investigate IT governance mechanisms utilized by business groups. In this context, Bapna et al. (2010, p. 794) stress that “linear extensions of dyadic client-vendor IT outsourcing relationships are insufficient to capture the nuances of the multisourced environment”.

With this research study we intend to increase the understanding of how IT governance mechanisms support the implementation of multisourcing in business groups. Therefore, we have defined three research questions:

- [RQ. 1] *What are the requirements that an IT governance mechanism needs to fulfill when supporting the implementation of multisourcing in business groups?*
- [RQ. 2] *Does the existing literature cover these requirements?*
- [RQ. 3] *If not, what could an IT governance mechanism look like?*

To answer these questions, we follow the design science research (DSR) paradigm (Hevner, March, Park, & Ram, 2004; March & Smith, 1995) as overall research orientation and utilize selected research methods – such as expert interviews, action research, and case study research.

This article aims to contribute to research on IT outsourcing and IT governance in several ways. First, it identifies requirements for an IT governance mechanism which is intended to support the implementation of multisourcing in business groups; second, it analyzes and evaluates established concepts; third, it suggests a maturity model as an IT governance mechanism supporting the implementation of multisourcing at business groups; and fourth, it demonstrates the maturity model with two real-life case examples. Besides the theoretical contribution, this research is also expected to help business groups facing similar challenges in implementing multisourcing.

The remainder of this article consists of five sections. The second section provides an overview of fundamental terms and related research. The next section outlines the research method. Then we describe the derivation of the maturity model, which is then demonstrated and evaluated in the next section using two case examples before we conclude in the last section.

BACKGROUND

For a field of research it is important to share a common understanding of basic terms. For this reason, key terms should be defined (Zorn & Campbell, 2006). Based on a literature review, we provide an introduction to multisourcing in business groups and give an overview of IT governance mechanisms.

Multisourcing in Business Groups

In manufacturing, the concept of multiple suppliers is widely-used (Su & Levina, 2011) and is primarily concerned with economies of scale (Porter, 1985). *Multisourcing*, in contrast, places emphasis on services rather than goods. The multisourcing definition applied in this study refers to the optimal utilization of IT services from multiple company-internal (such as in-house staff or captive centers) and company-external suppliers in the pursuit of business goals (Cohen & Young, 2006) entailing both domestic and offshore service delivery (Cohen & Young, 2006; Levina & Su, 2008). The reasons for applying multisourcing strategies are multifaceted and cover companies' increased needs for improved cost efficiency, flexibility, and quality in a dynamic and global business environment. Further, companies aim to ensure access to specialized expertise and capabilities, to foster competition between suppliers, and to diminish strategic and operational risks (Bapna et al., 2010; Cross, 1995; Lacity & Willcocks, 1998; Levina & Su, 2008; McMillan, 1990; Porter, 1985; Richardson, 1993; Su & Levina, 2011). However, there are some hurdles to overcome when applying multisourcing. For instance, it may require adjustments in the operational model. Further, multisourcing sets high prerequisites for managerial capabilities – such as governance (Cohen & Young, 2006; Jayatilaka, 2006; Levina & Su, 2008).

The term *business group* is defined in many ways in scholarly literature (Gerlach, 1992; Granovetter, 1994; Guillén, 2000; Leff, 1978; Nicodano, 1998; Smangs, 2006). This article follows the definition of Granovetter (1994, p. 429) of business groups as “sets of legally separate firms bound together in persistent formal and/or informal ways”. This also encompasses *management holdings* in which a parent company “confines itself to strategy and finance, and owns operational subsidiaries that are legally separate” (Granovetter, 1994, p. 436). A further characteristic of a business group is the systematic delegation of duties between the parent company (also referred to

as group center, head office, center, holding, corporate function) and the subsidiaries (also referred to as business entities, business units, daughter companies) (Gerlach, 1992; Granovetter, 1994; Guillén, 2000; Leff, 1978; Nicodano, 1998; Obermeier, 2000; Smangs, 2006). In our study we refer to the parent company as group center and use the term business entity for a subsidiary. While the degree to which the group center has vertical control over the business entities in terms of ownership and governance may vary, the group center is associated with a minimum of common administrative, financial, and managerial coordination (Granovetter, 1994; Smangs, 2006).

Zmud et al. (1986) applied the business group concept to the IT function. Frequently, the IT function in business groups is characterized by a *federal model* (e.g., Hodgkinson, 1996; Sambamurthy & Zmud, 1999; Weill, 2004). Weill (2004, p. 6) defines this model “as coordinated decision making involving both a center and its business units” and Handy (1992) emphasizes that the responsibilities and accountabilities of multiple governing bodies span at least two hierarchical tiers. This is also in line with the definition of Sambamurthy and Zmud (1999), which puts emphasis on the fact that both corporate IS (group center) and business entities assume authority for different IS functions. The group center provides “group-wide IT services and exerts some degree of central leadership and control of IT activities” (Hodgkinson, 1996, p. 249). Within this federal context of business groups, the implementation of IT strategies – such as a multisourcing approach – is challenging.

IT Governance Mechanisms

Van Grembergen (2002) defines IT governance as “the organizational capacity exercised by the board, executive management and IT management to control the formulation and implementation of IT strategy and in this way ensure the fusion of business and IT”. In this context, IT governance mechanisms are used to implement and deploy IT governance in

organizations (Peterson, 2004) and are applied by IT managers in day-to-day business (Weill & Ross, 2005).

Regularly applied definitions of IT governance mechanisms have three distinctive aspects in common – structures, processes and relational mechanisms, as proposed by Peterson (2004), Van Grembergen et al. (2004), as well as Weill and Ross (2005). In contrast to the commonly applied lists of concrete examples of governance mechanisms (e.g., Agarwal & Sambamurthy, 2002; Luftman & Brier, 1999; Weill & Ross, 2004; De Haes & Van Grembergen, 2009) present a summary of governance mechanisms and propose a definite set of relevant ones. This key minimum baseline includes, for example, project governance/management methodologies under which we classify maturity models as one process-oriented governance mechanism. However, in general, practitioners and researchers in the area of IT outsourcing have only recently discovered governance aspects as a particularly relevant subject in their field of research (e.g., Busi & McIvor, 2008).

RESEARCH METHODOLOGY

In order to answer the research questions, we followed the design science research (DSR) paradigm (Hevner et al., 2004; March & Smith, 1995) as overall research orientation, within which the use of different research methods is frequently utilized (Hevner et al., 2004; Iivari & Venable, 2009; Venable, 2006). Basically, DSR is a problem solving process during which artifacts are created (Hevner et al., 2004; Peffers, Tuunanen, Rothenberger, & Chatterjee, 2008) in order to enable “an improvement in an organization” (Venable, 2006, p. 185). Hevner (2007) describes three DSR cycles: the relevance, design, and rigor cycles.

Both our research approach and this article are structured in accordance with the DSR process model of Peffers et al. (2008). This encompasses six major activities that are closely interlinked with the DSR cycles:

- *Activity 1: Problem identification and motivation.* To incorporate concrete business needs (Hevner et al., 2004) a specific research problem has to be defined (Peffers et al., 2008). Some researchers suggest transforming the research problem into requirements (Eekels & Roozenburg, 1991) and this is also referred to as one part of the relevance cycle (Hevner, 2007).
- *Activity 2: Definition of objectives.* Description of how a new artifact is expected to target a specific research problem. This activity is informed by existing theoretical knowledge (Hevner et al., 2004) and is also referred to as one part of the rigor cycle (Hevner, 2007).
- *Activity 3: Design and development.* Closely linked to demonstration and evaluation, the design activity represents the creation of the artifact and therewith is also referred to as one aspect of the design cycle (Hevner, 2007). According to March and Smith (1995), artifacts can be constructs, models, methods, or instantiations.
- *Activity 4: Demonstration.* This activity aims to demonstrate the use of an artifact to solve a problem or parts of it; however, the extent of demonstration and evaluation varies significantly – from single demonstration to more formal evaluation (Peffers et al., 2008). For demonstration purposes, further research methods (such as case studies) can be used (Peffers et al., 2008). Jointly with the evaluation this concludes the relevance cycle.
- *Activity 5: Evaluation.* The evaluation “involves comparing the objectives of a solution to actual observed results [...] and can take many forms” (Peffers et al., 2008, p. 56). Besides artificial evaluation, Venable (2006) proposes naturalistic evaluation, encompassing, for example, case/field studies or action research.
- *Activity 6: Communication.* By diffusing the resulting knowledge, this activity completes the rigor cycle (Hevner, 2007; Peffers et al., 2008).

Expert interviews, action research and case study research are individual research methods frequently applied in the context of a larger DSR effort (Hevner et al., 2004; Iivari & Venable, 2009; Venable, 2006). In our research study each individual research method is utilized for a certain step in the DSR process.

We conducted *expert interviews* with the multisourcing project manager and two multisourcing transition managers at the group center of a worldwide leading financial service provider – referred to in the following as ALPHA. Besides ALPHA, we gathered information from the IT governance manager responsible for multisourcing at a business entity of another global financial service provider – referred to in the following as BETA. Each interview lasted for between 30 minutes and one hour. For the interviews, we used semi-structured interview guidelines and all of the interviews were transcribed (Yin, 2003). The aim of the expert interviews was to identify the research problem and to derive requirements in terms of implementing multisourcing in a business group.

Based on a close collaboration with ALPHA, we could apply *action research* as proposed by, for example, Avison et al. (1999), Baskerville (1999), Davison et al. (2004), or Susman and Evered (1978) to further refine the requirements as well as to design and evaluate the artifact in the context of an organizational problem (Venable, 2006).

We utilized *case study research* in accordance with Eisenhardt (1989), Miles and Huberman (1994), Patton (2002), and Yin (2003) for demonstration, evaluation and communication in the context of generalization efforts of the artifact. For this purpose we conducted a single case study with BETA. We conducted two semi-structured interviews. The first interview lasted for one hour and the second for two hours. The interviews covered the organizational specifics and the multisourcing approach, as well as the utilization of the developed artifact. Besides the

semi-structured interviews, internal documents of BETA were provided to the researchers and allowed for triangulation of sources (Patton, 2002). Moreover, two researchers were involved in data analysis, so ensuring analyst triangulation (Patton, 2002).

By applying the DSR process model including individual research methods, our research study satisfies the DSR guidelines suggested by Hevner et al. (2004). In order to deploy DSR in an effective way, Hevner et al. (2004) recommend following seven DSR guidelines, to which we would like to provide some brief comments:

- *Guideline 1: Design as an artifact.* Construction of a viable artifact in the form of a maturity model.
- *Guideline 2: Problem relevance.* Joint identification of business need and development of a solution to an important and relevant business problem with ALPHA and BETA.
- *Guideline 3: Design evaluation.* Demonstration of utility, quality, and efficacy of designed artifact through action research and case study research. Based on the iterative nature of DSR, the evaluation provides feedback to the construction phase. We could utilize four iterative cycles.
- *Guideline 4: Research contributions.* The research study contributes to both scientific knowledge and practice.
- *Guideline 5: Research rigor.* DSR requires the application of rigorous methods. In our study we apply expert interviews, action research and case study research to comply with this aspiration.
- *Guideline 6: Design as a search process.* DSR is inherently iterative. Our artifact was developed utilizing four iterative cycles.
- *Guideline 7: Communication of research.* This article aims to diffuse the knowledge to the scientific community. Through action research and case study research the knowledge has been dispersed into practice.

TOWARDS AN IT GOVERNANCE MECHANISM FOR MULTISOURCING

In the following section we describe the first three activities of the DSR process model (Peffers et al., 2008).

Problem Identification

Based on expert interviews and action research (business need) in combination with the underlying theory about business groups and federal IT organizations, we identified the research problem. The main challenge that business groups face is the resistance of business entities towards change. As discussed earlier in this paper, multisourcing requires adjustments in the operational model. Federal organizations do not apply central authority to force business entities towards the implementation (encompassing the rollout and execution) of multisourcing. Consequently, the need for an IT governance mechanism has been identified and specific requirements defined. With this we target research question 1: *[RQ. 1] What are the requirements that an IT governance mechanism needs to fulfill when supporting the implementation of multisourcing in business groups?* The defined requirements are listed in the following:

- Provide group-wide transparency along the multisourcing life-cycle *[R.1]*
- Enable monitoring of the progress of the implementation *[R.2]*
- Allow for comparison and classification of different business entities *[R.3]*
- Identify the capabilities necessary to improve the rollout process *[R.4]*
- Identify the capabilities necessary to optimize the execution of multisourcing *[R.5]*
- Illustrate desired evolution to effective and efficient utilization of multisourcing *[R.6]*
- Avoid ambiguities *[R.7]*
- Provide a coherent approach *[R.8]*
- Maintain ease of execution *[R.9]*

Objectives of the IT Governance Mechanism to be Designed

Building on the existing theoretical base in order to meet the above discussed requirements, the concept of a maturity model was selected. Becker et al. (2010) describe maturity models as conceptual models that outline an anticipated, typical, logical, and desired evolution path. Maturity models usually consist of a sequence of maturity levels with an initial bottom stage, representing no/low capabilities, and a highest stage describing total maturity (Becker, Knackstedt, & Pöppelbuß, 2009). “Advancing on the evolution path between the two extremes involves a continuous progression regarding the organization’s capabilities or process performance” conclude Becker et al. (2009, p. 213). Thereby, a maturity model provides criteria and characteristics that need to be fulfilled to reach a particular maturity level (Becker et al., 2009). According to Iversen et al. (1999), maturity models are utilized to assess the as-is situation, to derive and prioritize improvement measures and to control the progress of implementation. Beyond the fundamentally theoretical fit of maturity models, the practitioners at ALPHA and BETA were also in favor of maturity models. Based on these, established maturity models were the subject of further consideration.

Through a combination of practitioner recommendation and literature review, three established maturity models and two best-practice frameworks of sourcing-affiliated market researchers were identified. The best-practice frameworks were considered because of the market researchers’ experience with multisourcing and its considerable practical relevance. By targeting research question 2: *[RQ.2] Does the existing literature cover these requirements?*, the identified concepts were evaluated in terms of their fit to the requirements identified earlier in this article. The following concepts were identified:

- Capability Maturity Model Integration for Acquisition (CMMI-ACQ) (SEI, 2007) *[M.1]*

Table 1. Analysis of existing literature

Requirements \ Model	[M.1]	[M.2]	[M.3]	[M.4]	[M.5]
[R.1]	-	-	-	o	+
[R.2]	-	-	-	o	+
[R.3]	+	+	o	-	-
[R.4]	o	o	o	o	o
[R.5]	o	o	o	+	+
[R.6]	o	o	o	-	-
[R.7]	+	+	o	o	-
[R.8]	+	+	o	-	-
[R.9]	-	-	o	+	+
+ (completely accomplished) o (somewhat accomplished) - (not accomplished)					

- eSourcing Capability Model for Client Organizations (eSCM-CL) (ITSqc, 2006) [M.2]
- IT Procurement Maturity Model (Buchanan, 2007) [M.3]
- Gartner Multisourcing Competencies (Ridder & Cohen, 2008) [M.4]
- Forrester Multisourcing Roadmap (Davis, 2010) [M.5]

Subsequently, all concepts were analyzed and evaluated in terms of the requirements. The detailed analysis can be found in Table 1 (“+” means completely accomplished, “o” means somewhat accomplished, and “-” means not accomplished).

It can be observed that the two established frameworks [M.1] and [M.2] are far too detailed and that [R.9] is not met at all. Moreover, [M.1-3] provide a certain set of capabilities but do not meet the multisourcing specific requirements in terms of providing the necessary capabilities to the business entities either in order to improve the rollout process [R.4] or to optimize the execution [R.5]. Based on their nature as maturity models, [M.1-3] indicate a clear evolution path; however, they do not focus on

effective and efficient utilization of multisourcing [R.6]. Furthermore, the requirements in terms of providing transparency along the multisourcing life-cycle [R.1] and monitoring the progress of implementation [R.2] are not addressed. Nonetheless, [M.1-3] provide an established methodological basis and some content-wise aspects to address the requirements. They would allow an organization to compare and classify business entities [R.3], avoid ambiguities [R.7] and provide a coherent approach [R.8]. This strengthens the need for a newly developed maturity model dedicated to multisourcing. [M.4-5] are simply a list of competencies and best-practices to be taken into account while sourcing from multiple suppliers. These frameworks do not allow for comparison or classification [R.3], may lead to ambiguities [R.7] and do not provide a coherent approach [R.8]. However, [M.4-5] are easy to implement [R.9] and list a number of the competencies a company should acquire while applying multisourcing [R.4-5]. In addition, transparency along the multisourcing life-cycle [R.1] is given, to some extent. Therefore, especially content-oriented aspects can be considered as input to the design of a multisourcing maturity model.

Table 2. Origin of multisourcing maturity model aspects

Aspect \ Origin	[M.1]	[M.2]	[M.3]	[M.4]	[M.5]	Requirements	Evaluation cycles
Methodology	X	X	X				
Dimensions				X	X	X	X
Capabilities	0	0	0	X	X	X	X
X (direct integration) 0 (indirect integration)							

Design and Development of a Multisourcing Maturity Model

Since none of the analyzed concepts fulfils the identified requirements, a maturity model which is especially dedicated to multisourcing was developed. The model adopts established elements of the analyzed concepts and complements them with the detailed requirements. During four iterative design and evaluation cycles a multisourcing maturity model was developed. Table 2 illustrates the origin of the various maturity model aspects.

DEMONSTRATION AND EVALUATION OF THE MULTISOURCING MATURITY MODEL

In this section we describe the remaining activities of the DSR process model (Peffer et al., 2008) and illustrate two real-life case examples. Table 3 gives an overview of the maturity model. Vertically, it represents the three defined dimensions/sub-dimensions according to the sourcing life-cycle and horizontally it separates five maturity levels.

Following the established maturity models we suggest five maturity levels. The following maturity levels were defined in order to classify a company's maturity towards multisourcing and allow for comparison:

- Level 1: Multisourcing prepared
- Level 2: Multisourcing engaged
- Level 3: Multisourcing established

- Level 4: Multisourcing managed
- Level 5: Multisourcing optimized

For design and evaluation we applied four iterative cycles. The first iterative cycle encompassed the multisourcing project manager and transition managers at the group center of ALPHA. The second iterative cycle focused on the business entity level at ALPHA incorporating a business entity multisourcing manager. Moving beyond ALPHA, the third iterative cycle comprised representatives of the strategic external suppliers and the captive offshore center of ALPHA. With the aim of generalizing the multisourcing maturity model, the IT governance manager responsible for multisourcing at BETA was invited to the fourth iterative cycle. In accordance with Hevner et al. (2004) and Venable (2006), we utilized action research for the first three iterative cycles at ALPHA and case study research for the fourth iterative cycle with BETA.

The proposed multisourcing maturity model targets the requirements defined at the outset of this article in the following ways. The model is designed to provide those organizational units conducting multisourcing – the business entities – with support in terms of the capabilities necessary to improve the rollout and optimize the execution of multisourcing in a business group [R.4-5]. Further, it covers the whole multisourcing life-cycle from preparation and execution to steering [R.1]. When applied at business entity level and utilized for group-wide communication, the model provides transparency and allows for monitoring of the implementation progress at each individual

Table 3. *Multisourcing maturity model*

Dimension	Level 1	Level 2	Level 3	Level 4	Level 5
[A] Aspiration level of multi-sourcing	[A.1] Benefits of applying multisourcing have not been estimated	[A.2] Financial benefits of applying multi-sourcing have been estimated	[A.3] Financial benefits of applying multi-sourcing have been realized	[A.4] Beyond financial benefits, at least one additional benefit has been realized by applying multisourcing	[A.5] A balanced number of benefits have been realized by applying multisourcing and continuously improved
[B] Utilization of contractual framework	[B.1] No group-wide framework or multisourcing agreement exists at business entity level	[B.2] A group-wide framework agreement exists and multisourcing agreements at business entity level are used to some extent	[B.3] Beyond 2, multisourcing agreements at business entity level have been established and are used for some projects	[B.4] Multisourcing agreements are widely used at group, business entity and project level	[B.5] Multisourcing agreements are established for all sourcing activities at group, business entity and project level
[C] Adaptation of multisourcing specific roles and responsibilities	[C.1] Multisourcing specific roles and responsibilities do not exist	[C.2] A few multisourcing specific roles and responsibilities have been identified and some have been established	[C.3] A retained organization dedicated to multisourcing has been defined and partially implemented	[C.4] A retained organization dedicated to multisourcing has been established	[C.5] A retained organization dedicated to multisourcing is continuously improved and optimized
[D] Establishment of multisourcing processes	[D.1] Multisourcing specific processes do not exist	[D.2] Multisourcing specific processes have been piloted	[D.3] Multisourcing specific processes have been defined and partially implemented	[D.4] Multisourcing specific processes have been established	[D.5] Multisourcing specific processes are continuously improved and optimized
[E] Institutionalization of governance principles	[E.1] Multisourcing specific governance principles do not exist	[E.2] Multisourcing specific governance principles have been piloted and/or are limited to pure purchasing activities	[E.3] Multisourcing specific governance principles have been defined and partially implemented beyond purchasing	[E.4] Multisourcing specific governance principles have been established	[E.5] Multisourcing specific governance principles are continuously improved and optimized
[F] Multisourcing performance management	[F.1] Multisourcing KPIs do not exist	[F.2] A few multisourcing KPIs have been established	[F.3] A group standard set of financial and operational multisourcing KPIs have been identified and established	[F.4] Beyond financial and operational multisourcing KPIs, further multisourcing KPIs have been established to provide a balanced view	[F.5] An integrated dashboard of balanced multisourcing KPIs and business KPIs has been established and is used to steer all multisourcing activities

business entity as well as for the whole business group [R.1-2]. Classification and comparability can be provisioned through the standardized maturity levels [R.3]. Based on its nature as a maturity model, an evolution path towards a fully mature stage is demonstrated [R.6]. By concentrating on six dimensions, the model provides a coherent approach whilst maintaining ease of execution [R.8-9]. In addition, applied terms and concepts are grounded in the existing knowledge [R.7].

In the following we describe two real-life case examples of applying the multisourcing maturity model to the ALPHA and BETA business entities. Both companies are leading financial services providers (business groups) with a strong focus on the insurance sector. We have chosen these two companies because Levina and Su (2008) argue that financial services providers tend to be more proactive in IT and the outsourcing and offshoring of business processes. These cases represent one business entity that is near to the bottom stage of the maturity model, and another that is near to the highest maturity stage.

Case Example 1: Multisourcing at ALPHA

The US-based business entity of the business group ALPHA – referred to in the following as ALPHA-US – has a long track record in applying multisourcing in its IT function. Within the group (ALPHA), it is the most advanced business entity. ALPHA-US entered into strategic relationships with a limited number of external IT providers utilizing a group-wide contractual framework, which has been adapted to local specifics at the business entity level and uses standard multisourcing contracts for all new contractual relationships. Some long-standing contracts, signed in the past, are currently not covered, but will be cancelled or transferred. In the course of this, ALPHA-US realized factor cost savings and increased flexibility as well as quality, especially in application development and maintenance (ADM) projects. In order to achieve these, ALPHA-US established a

retained organization that is dedicated to multisourcing, and introduced specific processes as well as governance principles to steer the external suppliers. The multisourcing processes have been continuously developed and improved over the course of time. In terms of monitoring, ALPHA-US defined a balanced set of key performance indicators to monitor external supplier performance (e.g., operational KPIs such as defects and incidents in the ADM IT function) and measure internal multisourcing performance (e.g., strategic KPIs such as sourcing and shoring ratios). Table 4 gives an overview of the individual maturity levels of ALPHA-US along the different dimensions and illustrates that ALPHA-US has implemented multisourcing to a large extent and can be utilized as benchmark for other business entities at ALPHA. The maturity model acts as communication vehicle within the group.

Case Example 2: Multisourcing at BETA

One large European business entity of the business group BETA – referred to in the following as BETA-EU – is currently refining its sourcing strategy and moving towards multisourcing (Table 5). At the current stage, BETA-EU has not estimated the concrete financial benefits of multisourcing; however, it expects added value and increased service quality to be the benefits. In order to achieve these, BETA-EU utilizes group contractual framework agreements to some extent. Such agreements have been closed by the BETA group with two external IT suppliers. In order to increase multisourcing efforts at BETA-EU, the necessary roles are currently being identified; however, multisourcing processes do not exist at this moment. In terms of governance principles and monitoring aspects, BETA-EU can benefit from the first efforts of the BETA group. Yet, BETA-EU is still in a very early phase of multisourcing and the model provides a clear evolution path to which direction BETA-EU should head and which areas need attention.

Table 4. *Multisourcing maturity of ALPHA-US*

Dimension	Level 1	Level 2	Level 3	Level 4	Level 5
[A]	[A.1]	[A.2]	[A.3]	[A.4]	[A.5]
[B]	[B.1]	[B.2]	[B.3]	[B.4]	[B.5]
[C]	[C.1]	[C.2]	[C.3]	[C.4]	[C.5]
[D]	[D.1]	[D.2]	[D.3]	[D.4]	[D.5]
[E]	[E.1]	[E.2]	[E.3]	[E.4]	[E.5]
[F]	[F.1]	[F.2]	[F.3]	[F.4]	[F.5]

Table 5. *Multisourcing maturity of BETA-EU*

Dimension	Level 1	Level 2	Level 3	Level 4	Level 5
[A]	[A.1]	[A.2]	[A.3]	[A.4]	[A.5]
[B]	[B.1]	[B.2]	[B.3]	[B.4]	[B.5]
[C]	[C.1]	[C.2]	[C.3]	[C.4]	[C.5]
[D]	[D.1]	[D.2]	[D.3]	[D.4]	[D.5]
[E]	[E.1]	[E.2]	[E.3]	[E.4]	[E.5]
[F]	[F.1]	[F.2]	[F.3]	[F.4]	[F.5]

CONCLUSION

Since the current literature lacks depth in terms of IT governance mechanisms that foster the implementation of multisourcing in business groups, and the linear-extension of dyadic IT outsourcing literature is insufficient to address the details of multisourcing, we suggest a maturity model dedicated to multisourcing. By deriving requirements, and analyzing and evaluating current literature we build the foundation for the development of the maturity model.

The two cases at ALPHA and BETA prove that the model is able to provide guidance for coping with the challenges of implementing multisourcing in a business group. This is achieved by identifying the capabilities necessary to improve the rollout process and optimize the execution of multisourcing in business groups. The maturity model further provides transparency and allows monitoring of the progress of implementation, business entity classification and even comparison within a

business group as well as across business groups. Moreover, the maturity model illustrates a desired evolution path to effectively and efficiently utilize multisourcing, and can – according to the case interviews – be utilized for steering multisourcing in business groups by defining target scenarios and benchmarks.

In order to develop the maturity model, we followed the guidelines suggested by DSR and utilized individual research methods for specific parts of the overall research program. We can conclude that the guidelines suggested by Hevner et al. (2004), as well as the DSR process model of Peffers et al. (2008), provided us with a clear structure to conduct this research study. The close collaboration with ALPHA, supplemented by BETA, enabled a business need driven problem identification as well as evaluation of the maturity model.

By acting like this, we were able to address the following three research questions: *[RQ. 1] What are the requirements that an IT governance mechanism needs to fulfill when supporting the*

implementation of multisourcing at business groups? [RQ. 2] Does the existing literature cover these requirements? [RQ. 3] If not, what could an IT governance mechanism look like?

This research is, however, beset with certain limitations, such as the close collaboration with ALPHA. By incorporating BETA in the problem definition phase and external IT service providers and BETA in the evaluation phase (see the four iterative cycles mentioned above) we attempt to generalize the model. Another limitation is the concentration on the financial services industry. Future research might seek to apply the maturity model to a greater variety of industries and utilize it as a framework to compare business groups across different industries. In order to extend the knowledge on IT governance mechanisms in multisourcing, research could investigate other mechanisms such as structures and/or relational mechanisms.

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