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Deriving a Research Agenda for the Management of Multisourcing Relationships Based on a Literature Review

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ABSTRACT

There has been considerable development in Information Technology (IT) outsourcing during the last two decades. Nowadays, practitioner-related as well as scholarly literature have identified multisourcing as an emerging key strategy. Multisourcing is described as the blending of services from multiple internal and external vendors. Especially in the case of multisourcing the management of relationships is complex. For a certain field of research it is important to have an overview of the existing literature and a common understanding of basic terms. In this article we identify and analyze the body of knowledge in the area of managing multisourcing relationships. We hence conduct a structured literature review based upon an established literature review framework. It can be observed that the current literature lacks depth in terms of management of multisourcing relationships and that only a few articles cover the aspects of multisourcing in detail. Particularly regarding performance management, governance and knowledge management of multisourcing relationships we propose further research. We subsequently deduce a detailed research agenda for future research options.

Keywords

Multisourcing, IT outsourcing, managing relationships, literature review, research agenda.

INTRODUCTION

Information Technology (IT) outsourcing is by no means a new phenomenon and has, over the last two decades, been widely discussed and investigated by both scientific scholars as well as market researchers like Gartner or International Data Corporation (IDC). The worldwide IT outsourcing market is estimated at 114.6 billion USD in 2009 and – with a Compound Annual Growth Rate (CAGR) of three percent – anticipated to reach 131.3 billion USD in 2013 (Tapper, 2009).

In recent times it can be observed that mega-deals under a sole-sourcing approach are less frequent and companies have moved to a more selective outsourcing approach applying multisourcing strategies. The sourcing advisory firm TPI found that during the last years whilst outsourcing deals with a volume greater than one billion USD – so called mega-deals – have decreased both in size and prevalence, the number of outsourcing deals signed have increased (Huber, 2008; Mayo, Lang and Aitchison, 2010). Both, practitioner-related as well as scholarly literature has identified multisourcing as an emerging key strategy in today's IT outsourcing endeavors (Cohen and Young, 2006; Janischowsky and Schonenbach, 2009; Levina and Su, 2008; Oshri, Kotlarsky, Rottman and Willcocks, 2009). Multisourcing is the blending of services from multiple internal

and external vendors (Cohen and Young, 2006). The main drivers for the emergence of multisourcing strategies are companies' increased need for cost efficiency, flexibility, and quality in a dynamic and global business environment (Levina and Su, 2008). Companies face both opportunities and threats while adopting a multisourcing strategy. On the one hand, companies who are engaged in multisourcing gain flexibility and quality, foster the competition between the (strategic) vendors and therefore reduce costs or mitigate risks (Cross, 1995; Lacity and Willcocks, 1998; McMillan, 1990; Porter, 1985; Richardson, 1993). But on the other hand, multisourcing may require adoption in the operational model and sets high prerequisites for managerial capabilities in general and in particular to the management of multisourcing relationships (Cohen and Young, 2006; Jayatilaka, 2006; Levina and Su, 2008). While the basic concept of multiple suppliers is not new (Porter, 1985) and focused on economies of scale, the multisourcing concept – focusing on services rather than on goods – is beyond the economies of scale mainly concerned with knowledge (Levina and Su, 2008). And this, in turn, is an integral part of the management of relationships (Alborz, Seddon and Scheepers, 2003; Lacity and Willcocks, 2002).

In the field of IT outsourcing several literature reviews have been conducted by IS scholars. The literature reviews cover articles on IT outsourcing focusing on research topics, research methods, IS journals dealing with IT outsourcing or authors studying IT outsourcing (Dibbern, Goles, Hirschheim and Jayatilaka, 2004; Gonzalez, Gasco and Llopis, 2006; Jiang and Qureshi, 2006; Lacity, Kahn and Willcocks, 2009; Li and Li, 2009). Besides Levina and Su (2008) who to some extent analyzed literature concerning the development of the supply base, according to the authors' knowledge no literature review investigates articles that cover a multisourcing situation specifically. Nor does any literature review focus particularly on the management of multisourcing relationships. Yet it can be observed that the number of publications on multisourcing is rising (Levina and Su, 2008) and IS scholars are increasingly investigating IT outsourcing from a relationship perspective (Agarwal and Sambamurthy, 2002; Alborz et al., 2003; Lacity and Willcocks, 2002; Lacity, Willcocks and Rottman, 2008). Based upon these observations the following research questions can be derived:

- (1) *What are relevant definitions for the term multisourcing?*
- (2) *What is the status quo of the multisourcing literature?*
- (3) *How is the management of multisourcing relationships addressed in the literature?*
- (4) *What are potential areas of future research?*

A literature review represents an “essential first step and foundation when undertaking a research project” (Baker, 2000) and aims to “uncover the sources relevant to a topic under study and, thus, makes a vital contribution to the relevance and rigour of research” (vom Brocke, Simons, Niehaves, Riemer, Plattfaut and Cleven, 2009). The relevance refers to the avoidance of investigating what is already known (Baker, 2000) and the rigour to the effective use of the existing knowledge base (Hevner, March, Park and Ram, 2004). This literature review aims to provide an overview of relevant definitions for the term multisourcing, present the status quo by classifying the literature, analyze how the management of multisourcing relationships is addressed in the literature and deduce a detailed research agenda for future research options.

LITERATURE REVIEW

Vom Brocke et al. (2009) stress the importance of rigour in documenting the literature search process in order to enable the reader to assess the quality of a review and propose a five-step literature review framework. This framework was used to conduct and document this literature review on multisourcing and provides the structure for this paper. According to the framework, five steps are necessary: First, the review scope will be defined. Second, the topic will be conceptualized. After conceptualizing the topic, the process of the literature search will be presented. Having identified the articles a detailed literature analysis as well as synthesis will be accomplished; therefore the authors will use a detailed matrix in order to classify the articles. Based upon these findings a research agenda will be presented.

Definition of Review Scope

In order to clearly define the scope of a literature review, vom Brocke et al. (2009) recommend drawing on an established taxonomy for literature reviews such as that presented by Cooper (1988). The Cooper's taxonomy comprises of six constitutive characteristics (Table 1). Each characteristic contains certain categories. Whereas some are mutually exclusive (4 and 6), others (1, 2, 3 and 5) can be independently combined (vom Brocke et al., 2009). The grey shaded categories represent focal points of this literature review.

Characteristic		Categories			
(1)	Focus	Research outcomes	Research methods	Theories	Applications
(2)	Goal	Integration	Criticism		Identification of central issues
(3)	Organization	Historical	Conceptual		Methodological
(4)	Perspective	Neutral representation		Espousal of position	
(5)	Audience	Specialized scholars	General scholars	Practitioners	General public
(6)	Coverage	Exhaustive	Exhaustive and selective	Representative	Central / Pivotal

Table 1: Taxonomy of literature reviews (following Cooper (1988))

Conceptualization of the Topic

After defining the review scope, vom Brocke et al. (2009) recommend paying attention to the fact that a review needs to begin with “a broad conception of what is known about the topic” (Torraco, 2005). For a field of research it is important to have a common understanding of basic terms. For this reason, definitions of key terms should be provided (Zorn and Campbell, 2006). Table 2 aims to answer research question 1 (*what are relevant definitions for the term multisourcing?*).

Year	Author(s)	Definition	Literature domain	Publication type
2009	Janischowsky and Schonenbach (2009)	<i>[...] optimizing business, information technology and infrastructure services across external <u>suppliers</u> and internal departments / companies [...]</i>	N/A	Practitioner literature
2006	Cohen and Young (2006)	<i>[...] the disciplined provisioning and blending of business and IT services from the optimal set of internal and external <u>providers</u> in the pursuit of business goals [...]</i>	N/A	Practitioner literature
2005	Cullen, Seddon and Willcocks (2005)	<i>[...] <u>several suppliers</u> are contracted under one contract without a lead supplier [...]</i>	IS	Journal article
2002	Carmel and Agarwal (2002)	<i>[...] longer-term, deeper relationships with a small number of <u>vendors</u> [...]</i>	IS	Journal article
1999	Gallivan and Oh (1999)	<i>[...] a one-to-many relationship indicates that one client uses <u>multiple outsourcing vendors</u> to achieve its objectives [...]</i>	IS	Conference proceeding
1998	Currie (1998)	<i>[...] a company signs <u>outsourcing</u> contracts with <u>more</u> than one IT <u>supplier</u> [...]</i>	IS	Journal article
1998	Willcocks and Lacity (1998)	<i>[...] one <u>outsourcing</u> contract but <u>multiple suppliers</u> of services [...]</i>	IS	Textbook
1995	Cross (1995)	<i>[...] buy IT services from <u>multiple suppliers</u> and have the pieces delivered as if they came from a single supplier [...]</i>	Mgmt.	Journal article
1988	Treleven and Schweikhart (1988)	<i>[...] <u>multiple sourcing</u> refers to a vendee purchasing an identical part from two or more <u>vendors</u> [...]</i>	OM	Journal article
1985	Porter (1985)	<i>A firm should:</i> <ul style="list-style-type: none"> <i>[...] select those <u>suppliers</u> which are most efficient or those that offer the least costly product [...]</i> <i>[...] keep the <u>number</u> of sources sufficient to ensure competition [...]</i> 	Mgmt.	Textbook

Table 2: Overview of selected multisourcing definitions

The starting point for the overview on definitions of the term multisourcing was built by a practitioner book by Linda Cohen and Allie Young that received great attention during the last years (Charles, 2006). Additional definitions – explicitly or implicitly – derived for the term multisourcing can be located in the Management (Mgmt.), IS and OM literature and across different types of publications. Porter (1985) was one of the first authors to implicitly define multisourcing by describing the competition between suppliers that fosters performance and reduces costs. Sourcing strategies have a long track record in the OM literature and Treleven and Schweikhart (1988) described multisourcing explicitly in the late 1980's. With IT outsourcing gaining momentum in the 1990's the IS literature is increasingly dealing with multisourcing ideas. Lately, practitioner literature – such as that of the IT research and advisory company Gartner – is expanding the concept to both business and IT services (Cohen and Young, 2006).

An outsourcing relationship is “an ongoing, long-term linkage between outsourcing vendor(s) and customer arising from a contractual agreement to provide one or more comprehensive IT activities, processes, or services with the understanding that the benefits attained by each firm are at least in part dependent on the other” (Goes and Chin, 2005). In case of multisourcing where the services of multiple internal and external vendors are blended, the management of the relationships is more complex (Agarwal and Sambamurthy, 2002). In order to describe and analyze the management of multisourcing relationships in detail we applied the classification of managing outsourcing relationships of Alborz et al. (2003) which is based upon Lacity and Willcocks (2002) to multisourcing relationships. The model describes that the management of outsourcing relationships can be segmented into three stages that are operationalized by sub-categories:

- (1) The **pre-contract stage** embraces the *outsourcing strategy* (e.g., decision criteria and outsourcing intent) and *due diligence* (e.g., supplier selection).
- (2) The **contract stage** focuses on the *contract development* (e.g., contract type, SLA set up).
- (3) The **post-contract stage** covers *governance* (e.g., management structure), *contract management* (e.g., SLA management, risk management), *performance management* (e.g., cost, time, quality), *working relationship management* (e.g., cultural fit, coordination, communication), and *knowledge management* (e.g., knowledge sharing and transfer).

Literature Search

The literature search process can be conducted in many different ways. Vom Brocke et al. (2009) propose a four-phase approach: journal search, database search, keyword search and backward/forward search. Each phase is composed of a search task and an evaluation task (Levy and Ellis, 2006) and needs to be documented in order to ensure reliability, which enables the search process to be repeated (vom Brocke et al., 2009). Evaluation describes the process of limiting the number of articles to those relevant to the topic.

The first step of the literature search process is the **journal search**. Since journals and conference proceedings have typically been peer-refereed before publication, it is generally proposed to focus on those categories of literature and select only higher ranked conferences (Rowley and Slack, 2004; Webster and Watson, 2002). In order to ensure that all top-tier journals are included in the literature search, one should query scholarly databases that can be attained through the journal search (Webster and Watson, 2002). For this literature review we based our selection of relevant journals on Willcocks, Whitley and Avgerou (2008), the AIS World MIS Journal Ranking for IS and Management literature as well as Olson (2005) for OM literature. In addition the AIS World database (AISEL) helped to identify relevant conferences. Besides the *International Conference on Information Systems (ICIS)* and the *European Conference on Information Systems (ECIS)*, the *American Conference on Information Systems (AMCIS)* and the *Pacific Asia Conference on Information Systems (PACIS)* could be identified.

Based upon the relevant journals proper databases could be selected and evaluated during the **database search**. This second step is necessary in order to ensure that all leading journals are included in the review (vom Brocke et al., 2009) and led to the following databases: *Proquest (ABI/INFORM)*, *EBSCOhost*, *Emerald*, and *ScienceDirect*. This approach supports the claim of this literature review to be exhaustive in coverage (Table 1).

During the third step the identified databases have to be queried on the basis of a **keyword search**. The use of a precise (set of) search phrase(s) is recommended (Rowley and Slack, 2004) and vom Brocke et al. (2009) stipulate that the applied keywords have to be documented precisely. Table 3 shows the search phrases as well as the number of articles for the time period from 1990 to 2010. The total number of hits (in brackets) were deduced by an individual evaluation of the titles and abstracts to derive the relevant articles (in bold). Since neither the databases nor the search terms are mutually exclusive, double counts were removed manually in order to get the net hits. The keywords were derived based upon the main definitions (see Table 2 underlined phrases). The keyword search identified 17 articles (net hits) on multisourcing.

Database	Multisourcing OR multi sourcing	multi w/2 vendor OR supplier OR sourcing	Number w/2 vendor OR supplier	supply base AND outsourcing	Net hits
Proquest	3 (16)	4 (86)	2 (290)	1 (13)	6
EBSCOhost	2 (15)	3 (35)	2 (124)	1 (4)	4
Emerald	1 (2)	2 (16)	1 (45)	0 (4)	2
ScienceDirect	3 (40)	4 (54)	2 (233)	0 (4)	5
AISel	3 (26)	4 (75)	4 (73)	0 (0)	7
Net hits					17 (24)

Table 3: Results of the keyword search

According to the framework we proceeded with the backward and forward search. The **backward search** is reviewing literature that is cited in articles derived from the keyword search. **Forward search** specifies the process of reviewing articles that have cited the articles derived from the keyword search (Webster and Watson, 2002). Especially for OM articles, the backward and forward search yielded many results since the term multisourcing seems to be dominant in the IS but less known in the OM literature. The backward and forward search has additionally led to 34 relevant articles deriving a sum of 51 articles.

Furthermore, a combined backward and forward search detected a number of additional practitioner articles of Gartner. In the time period from 2005 to 2010, we found 186 documents dealing with multisourcing and 48 documents that carry multisourcing in the title or in the abstract. As already discussed, we focused on scholarly literature and therefore did not analyze the Gartner articles further.

Literature Analysis and Synthesis

The collected literature was analyzed and synthesized in a next step in order to derive a research agenda and answer the research questions. It is the purpose of a successful literature review to constructively inform the reader what has been learnt and show what patterns can be found (Webster and Watson, 2002).

In order to classify the articles we used a detailed matrix encompassing three dimensions (Table 4). Dimension one targets the term multisourcing and answers research question 2 (*what is the status quo of the multisourcing literature?*). Dimension two focuses particularly on the management of multisourcing relationships and answers research question 3 (*how is the management of multisourcing relationships addressed in the literature?*). The third dimension covers meta-information about the articles and is developed according to the literature taxonomy of Cooper (1988). It is beyond the scope of this article to list all possible characteristics and categories. The aim of this analysis is to focus on the relevant ones identified during the literature review. The analyzed categories were not mutually exclusive.

The characteristics and categories of the **multisourcing dimension (1)** were derived from four main sources: sourcing literature, interviews with sourcing specialists, multisourcing project experience of one of the authors, and the documentation of multisourcing approaches from a supplier perspective. Seven characteristics could be identified. First, the *applied term* in the article. Second, in order to see if the concept is limited to one specific category we distinguished between the *goods and services category*. Third, early authors mention only outsourcing but more recent publications comprise both internal as well as external service delivery and therefore we introduced the *make vs. buy decision* characteristic. Forth, to see the *geographical characteristics* we made a distinction between onshore, nearshore, and offshore. Fifth, viewing multisourcing in a longer term perspective we analyzed the papers for the *supply base development*. And finally, the two more practical characteristics: *organizational level* and *industry*.

To analyze the management of relationships in multisourcing environments, we used an established **relationship classification framework (2)** of Alborz et al. (2003) as introduced above.

The third dimension – the **meta-information (3)** – is based on the taxonomy of Cooper (1988) and adopts the first three characteristics: *focus*, *goal*, and *audience*. The other three characteristics have been added by the authors in order to expand the framework and get more information about the *literature domain*, the *type of literature* as well as the *research method*. The adjustments were based on Alavi and Carlson (1992) and Levina and Su (2008). In order to classify the literature the authors counted articles applying certain phrases. An interpretation of the meaning was not conducted. The phrase nearshore, for example, was counted independent of the authors' perspective on nearshore (Carmel and Abbott, 2007).

Characteristic		Categories								
(1) Multisourcing	Applied term	Multisourcing (19)		Multiple sourcing (9)		Multi vendor / supplier (30)		Selective sourcing (14)		
	Goods vs. services	Goods (14)			Business services (7)			IT services (35)		
	Make vs. buy decision	Only outsourcing (19)				Inhouse delivery combined with outsourcing (5)				
	Geographical characteristics	Onshore (2)			Nearshore (3)			Offshore (14)		
	Supply base development	Reduction (4)				Enlargement (4)				
	Organizational level	Business unit (1)				Group (1)				
	Industry	Manufacturing (14)		Retail (2)		Banking (9)		Insurance (3)		
(2) Relationship	Pre-contract stage	Outsourcing strategy (20)				Due diligence (10)				
	Contract stage	Contract development (7)								
	Post-contract stage	Governance (6)		Performance mgmt. (1)		Contract mgmt. (10)		Working relationship mgmt. (15)		Knowledge mgmt. (2)
(3) Meta-information	Focus	Research outcomes (43)		Research methods (0)		Theories (19)		Applications (3)		
	Goal	Integration (25)			Criticism (4)			Central issues (36)		
	Audience	Specialized scholars (51)		General scholars (8)		Practitioners (7)		General public (0)		
	Literature domain	IS (27)			OM (10)			Management (11)		
	Type of literature	Journal article (44)				Conference proceedings (7)				
	Research method	Literature review (12)	Case study (22)	Survey (3)		Conceptual (19)	Illustrative (21)		Mathematical modeling (7)	

Table 4: Matrix for literature analysis

The framework of the literature analysis and the results (number of relevant articles in brackets) are illustrated in Table 4. The literature search identified 51 articles on multisourcing and thereof 34 articles cover at least one stage in the management of multisourcing relationships. Most articles focus on *research outcomes* (43 articles). 25 articles aim to *integrate* knowledge and/or 36 target a *central issue*, whereas only 4 articles *criticize*. All articles target *specialized scholars*, whereas 8 *general scholars* and 7 *practitioners*. 27 articles can be found in *IS* and 11 in *Management*, but only 10 in *OM literature*. 44 articles were derived from *journals* and 7 from *conferences*. In terms of the research method 22 articles use the *case study* method, 19 are *conceptual* and 21 *illustrative*, but only 3 articles use a *survey* and 7 *mathematical modeling*. Relevant results and exemplary propositions were structured along two categories: general findings and findings on the management of multisourcing relationships.

General Findings

The general findings can be summarized as follows:

(1) Evolution of the term multisourcing

There seems to be an *evolution in the definition* of the term multisourcing (Table 2 and Table 4) developing from a Management (see, inter alia, Porter (1985)) and OM (see, inter alia, Treleven and Schweikhart (1988)) to an IS perspective (see, inter alia, Willcocks and Lacity (1998)) and finally covering both IT as well as business services (see, inter alia, Cohen and Young (2006)). The multisourcing of *goods* is covered in the earliest publications. *IT services* are represented in 35 articles but *business services* only in 7 articles. It can be observed that *business services* are initially covered from the beginning of the 21st century onwards.

In addition, the term multisourcing seems to be defined both implicitly as well as explicitly in the literature. The terms *multisourcing* or *multiple sourcing* are used in 28 articles, representing 55 percent of the relevant articles. In other articles especially the terms *multi vendor* or *supplier* are used quite intensively (30 articles), as is the term *selective outsourcing* (14 articles). Frequently the authors use different versions of terms describing the same phenomenon (see, inter alia, Gallivan and Oh (1999) or Dibbern et al. (2004)). The *organizational level* is basically not covered and the most established industries seem to be manufacturing (14) and banking (9).

(2) Level of detail

The *level of detail* of the articles ranges from *superficial* (multisourcing is named as a sourcing option and hardly described) to *explicit* (whole paper is dedicated to multisourcing). It can be observed that just a few articles cover the multisourcing concept in detail (see, inter alia, Currie (1998) or Levina and Su (2008)). Most articles describe it just superficially or name it as one option amongst others. Some authors state, that the current literature provides only *limited understanding* of the multisourcing concept (Levina and Su, 2008). The journal article by Levina and Su (2008) was published in the *Decision Sciences* journal and can be identified as one of a few articles that is specifically dedicated to multisourcing and covers a certain aspect in detail ("supplier portfolio in service offshoring").

Findings on the Management of Multisourcing Relationships

Findings in terms of the management of multisourcing relationships can be summarized as follows. Thereby we aim to answer research question 3 (*how is the management of multisourcing relationships addressed in the literature?*).

(1) Pre-contract stage

22 of the relationship oriented articles deal with the *pre-contract stage*. Most of them cover amongst others the *outsourcing strategy* (20 articles) describing, for example, geographic characteristics with a focus on *offshoring* (19 articles). Rottman and Lacity (2006) argue that with multiple suppliers the risk of offshore outsourcing can be significantly reduced and King (2008) calls for further research on theoretical frameworks explaining how offshoring differs from multisourcing. Rottman and Lacity (2006) contribute with their work to the benefits identified by applying multisourcing strategies and King (2008) invites researchers for further investigation.

Besides the outsourcing strategy a relevant number of articles target the *pure outsourcing* aspect (19 articles). Just a few articles however, can be detected on a combined approach with *inhouse delivery and outsourcing* (5 articles). The phenomenon of a combined approach seems to appear with an increased use of multisourcing strategies and should be investigated further. In addition to the scholarly articles the practical experience of one of the authors confirms the relevance of this aspect. The company he is working for is currently facing this challenge.

Furthermore, the *supply base development* in multisourcing environments is infrequently analyzed. Levina and Su (2008) are one of just a few researches investigating this field of study. The research outcomes and theories in the post-contract stage are mainly derived from case studies and mathematical modeling. 2 out of the 3 articles that used a *survey* can be allocated to this category and 7 articles comprise a short *literature review*.

(2) Contract stage

All articles dedicated to the *contract stage* were published in *journals* and mainly used *case studies* as their underlying research methodology. 7 articles could be detected that cover the *contract stage* of multisourcing endeavors. Currie (1998), for example, calls for further research on the contract negotiation specifically in multisourcing environments and Cullen et al. (2005) provide a high-level configuration framework for outsourcing

agreements. But no article deals with different contract types in detail or the set up of Service Level Agreements (SLAs). Due to the authors' own practical knowledge, detailed experiences made during multisourcing endeavors of corporations are available on the one hand. And on the other hand, companies facing the challenge of multisourcing are seeking best-practice examples. A potential research method targeting this situation would be case study research (see, inter alia, Yin (2002)).

(3) Post-contract stage

Most of the relationship oriented articles deal with the *post-contract stage* (24 articles) having a strong focus on *working relationship management* (15 articles) and *contract management* (10 articles) but less on *governance* (6 articles), *knowledge management* aspects (2 articles) or *performance management* (1 article) of multisourcing relationships. The research outcomes and theories are exclusively derived from *case studies* and no *mathematical model* was applied. 7 articles in the post-contract stage target *practitioners* and *general scholars*, representing 7 out of 8 practitioner/general scholar oriented articles.

It can be observed that many articles cover the area of risk management of multisourcing relationships (see, inter alia, Treleven and Schweikhart (1988) or Currie (1998)). Especially the aspects of risk mitigation through multisourcing strategies are frequently described. This goes well along with the previous stated benefits of using multiple suppliers over one single supplier.

In addition, literature lacks quantity and depth in terms of *governance* and *performance management* and some authors call for further academic research on this specific topics (Currie, 1998).

Research Agenda

The literature analysis and synthesis led us to the research agenda that is “comprised of sharper and more insightful questions for future research” (vom Brocke et al., 2009). By targeting research question 4 (*what are potential areas of future research?*) we propose the following topics:

- Further investigation of the *term multisourcing*. What are the drivers and stages of the evolution of the multisourcing definitions and what are the common characteristics of the definitions?
- In the *outsourcing strategy (pre-contract stage)* the *interplay between inhouse delivery and outsourcing* is not addressed. What is the role of internals or a captive center within a multisourcing approach?
- The *contract stage* of the multisourcing relationship management is sparsely covered and no detailed article on SLAs or contracts is available. Can a meta-framework for multisourcing contracts be derived from case studies? Is there a need for a more detailed analysis of SLAs and can case studies contribute to this desire?
- In the *post-contract stage*, there are practically no articles available on *performance management*. Is there literature available from dyadic relationships that could be applied and what set of KPIs can be used to monitor multisourcing relationships and vendor performance?
- Also in the *post-contract stage* only a few articles are available on *governance mechanisms*. Is there literature available from dyadic relationships that could be applied and what are governance mechanisms in a multisourcing relationship?
- No research on *organizational perspective*. Can the same principles of multisourcing be applied to group level and business unit level?
- Manufacturing and banking as *most referenced industries* identified. Are those industries more mature than others? If yes, can less mature industries learn from more mature industries and can concepts be transferred?
- Levina and Su (2008) seek to challenge their theories about *supplier portfolios* in IT services. Can additional case studies validate their theories?

CONCLUSION

With this article we aimed to analyze the body of knowledge of multisourcing and the management of multisourcing relationships. We therefore have provided an overview of relevant definitions and conducted a structured literature review based upon an established literature review framework. We analyzed 51 papers on multisourcing and focused specifically on the management of multisourcing relationships. We were able to answer research question 1 (*what are relevant definitions*

for the term multisourcing?) by providing an overview of definitions, research question 2 (*what is the status quo of the multisourcing literature?*) by searching, analyzing and classifying the body of knowledge on multisourcing and research question 3 (*how is the management of multisourcing relationships addressed in the literature?*) by focusing on the relationship aspects of multisourcing. Thereby it can be observed that the current literature lacks depth in terms of management of multisourcing relationships and that just a few articles cover the aspects of multisourcing in detail. We subsequently deduced 8 topics for future research options while targeting research question 4 (*what are potential areas of future research?*). Especially in terms of performance management, governance and knowledge management of multisourcing relationships we proposed further research.

Nevertheless, some restrictions to and shortcomings of this article have to be taken into account. The literature search based on a database search aims to target all relevant journals; however it is no guarantee that all relevant journals or articles are included. The definition of keywords – even though it was based upon a pre-research – is subjective to the authors and a different selection may lead to different results. We analyzed the multisourcing literature in terms of relationship management. The general IT outsourcing literature was not included. In addition, the meta-characteristic “*focus*” and its category “*research method*” of the literature analysis framework (Table 4) did not provide any articles; hence many articles were derived on “*research outcomes*”. It could be discussed whether the categories are the right ones. Finally, the literature review framework according to vom Brocke et al. (2009) places on the documentation of the review process and therefore has a strong focus on method.

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