Association for Information Systems
AIS Electronic Library (AISeL)

December 2004

A Process View of Information Systems Outsourcing Research: Conceptual Gaps and Future Research Directions

Virginia Ilie
University of Central Florida

Mihir Parikh
University of Central Florida

Follow this and additional works at: http://aisel.aisnet.org/amcis2004

A Process View of Information Systems Outsourcing Research: Conceptual Gaps and Future Research Directions

Virginia Ilie
University of Central Florida
virginia.ilie@bus.ucf.edu

Mihir Parikh
University of Central Florida
mihir.parikh@bus.ucf.edu

ABSTRACT

With over a decade of research, IS outsourcing seems to mature as an area for IS research. In this paper we use a process-based view to analyze existent IS outsourcing research and identify many issues that still need to be addressed in this area. We classify past outsourcing studies as per their focus on one or more of the seven proposed phases of the outsourcing process. We identify and analyze different theoretical gaps in the current outsourcing literature and propose several specific research questions for each phase to be investigated in future research.

Keywords

IS outsourcing; process model; research review

INTRODUCTION

Outsourcing first captured the attention of IS researchers in the early 1990s (Loh & Venkatraman, 1992; Kiepper, 1992). Since then, much has been written on IS outsourcing and different theoretical models have been proposed. As IS research in outsourcing is maturing, it is imperative that we analyze and synthesize the accumulated body of literature under an overarching framework to develop future directions for research (Webster & Watson, 2002).

In this paper, we utilize a process-based view of the IS outsourcing to analyze current research in IS outsourcing. The process view consists of seven broadly-defined phases starting with the decision to outsource IS, vendor search and selection, the negotiation of the outsourcing contract, implementation of the contract, the development of operations or relationships between the outsourcing partners, evaluation of the outcomes from the outsourcing agreement and, finally, the decision to renew the outsourcing contract with the same provider, to switch the providers, or bring the system back in-house. Through an in-depth review of academic literature on outsourcing, we classify existent research on outsourcing according to the seven phases of the outsourcing process. The purpose is to present the state of current research in IT outsourcing under a specific process-based framework. Based on the synthesis, we identify theoretical gaps in the literature and propose specific research opportunities requiring further investigations. Our objective is not to conduct a formal meta-analysis but rather a comprehensive review of the outsourcing literature, more like that of Alavi & Leidner (2001) on knowledge management. More in the spirit of a comprehensive review, we provide a review of the IS outsourcing literature in the past 10 years towards identifying the areas that have been intensively research and the areas that need more research in the IS outsourcing arena.

PROCESS MODELS IN IS OUTSOURCING

Many researchers have discussed the process of outsourcing in different contexts. An early model proposed by Buchowicz (1991) outlines the process involved in the make-vs-buy decision in software development. As per the model, the firm, first, evaluates the strategic fit of vendors' software development proposals. Then, it categorizes the screened proposals on specific decision-criteria, such as urgency, available resources, technical uncertainty, and trust in its IS function. Last, it takes the final decision in three separate sub-stages. This model relates to early stages of outsourcing process, though it does not discuss outsourcing specifically and does not elaborate on contracting, implementing outsourcing agreement, relationships development, and evaluation of an outsourcing arrangement.

Chaudhury et al., (1995) presented a process flow model consisting six steps. First, the firm decides whether to outsource or not. Then, it decides on the degree (selective versus total outsourcing). Third, it prepares a list of possible vendors. Fourth, it

short-lists vendors based on key dimensions. Fifth, the firm issues request for proposal to receive bids from the short-listed vendors. Finally, it selects a vendor and develops policies and contracts to manage outsourcing issues. Again, this model focuses only on the early stages of outsourcing process.

Lee & Kim (1997) developed a process model for making outsourcing decisions in general and in Korean context. The general model included seven stages: outsourcing strategy selection, service provider evaluation, service provider selection, contract negotiation, outsourcing implementation, contract management, and performance feedback.

Lacity & Willcocks (2000) proposed a six-phase process model to analyze the relationships among stakeholders involved in IT outsourcing. The phases are scoping, evaluation, negotiation, transition, middle, and mature. While this process model outlines various activities undertaken and associated objectives, it is primarily developed for a relationship analysis.

In analyzing historical evolution of outsourcing issues, Lee, et al. (2003) developed a two-stage research model involving seven issues: make-or-buy decision, motivation, scope, performance, insource or outsource, contract and partnership. Though, these issues provide a process perspective, the model was developed primarily to present the historical progression of IT outsourcing.

Through a synthesis of these relevant process models, we outline a comprehensive model of the outsourcing process (Figure 1). This model is based on Ring & Van de Ven's (1994) process framework for the development of cooperative interorganizational relationships. It provides the logical and chronological perspectives on the activities involved in outsourcing.
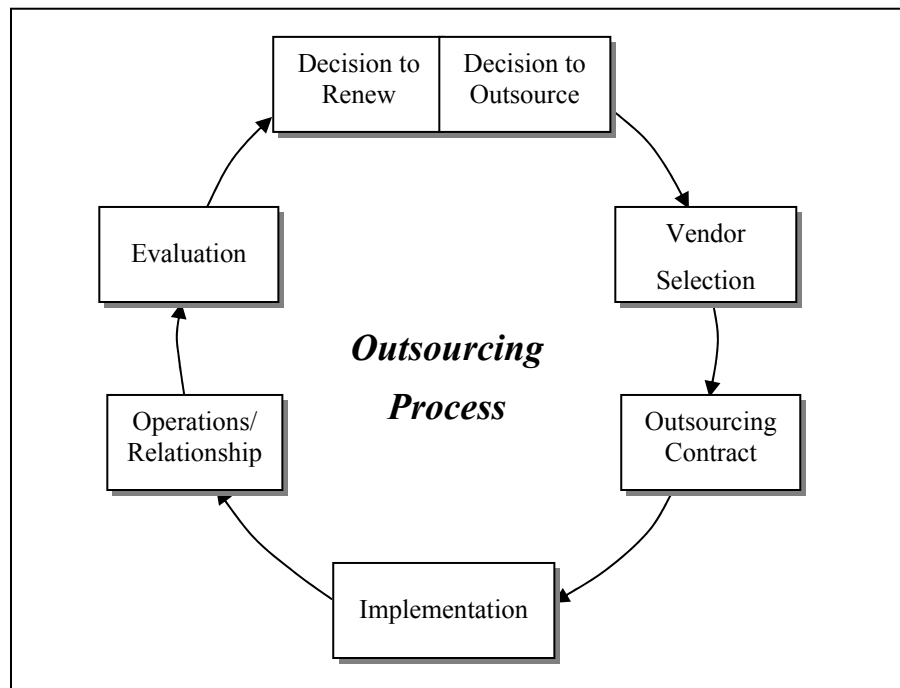

Figure 1: Process Model of Outsourcing

The model consists of seven independent phases starting with the decision to outsource IS, vendor search and selection, the development of the outsourcing contract, implementation of the contract, operations and the development of relationships between the outsourcing firm and vendor, evaluation of the outcomes from the outsourcing agreement, and finally the decision to renew the outsourcing contract with the same provider, to switch to a different one, or to bring the IS back in house.

MAPPING THE IS OUTSOURCING RESEARCH

In a thorough search of the IS and Management academic literature, we came across over 250 articles related to "outsourcing" or "sourcing" and "information systems" or "information technology." First, we reviewed the abstract of each article to determine whether the article specifically dealt with IS/IT outsourcing issues or not. We found that some articles

dealt with outsourcing but not in an IT context and some articles did not centrally focused on IT/IS outsourcing. We short-listed 118 articles. The list of journals is presented in Appendix A.

In the next step, we mapped each of the selected outsourcing-related articles on the seven phases identified in the process model discussed in the previous section (Appendix B). We read through each article and identified the phase to which the article was related. We found some articles had discussed more than one phase and some have discussed even the overall outsourcing process. In those instances, we have classified the article in all phases.

RESEARCH GAPS AND OPPORTUNITIES

The mapping, at the first glance, suggests that there has been uneven research focus in IS outsourcing research. Many research studies have focused on the outsourcing decision-making, contracts, and relationship. While other phases, vendor search, outsourcing implementation, evaluation of the outsourcing project, and decision to review or terminate have not been researched in detail. In this section, we identified specific research gaps and opportunities for future research in each phase.

The Outsourcing Decision

A vast majority of research articles have focused on the outsourcing decision by presenting various explanations of why organizations choose to outsource IS. Most view the outsourcing decision as a rational decision based on economic or resource-based factors. Goo et al. (2000) identified 14 theory-based drivers of outsourcing decision. However, we found that most articles have focused primarily on economic drivers.

One of the most commonly cited reasons for outsourcing IS function is cost savings (Ang & Straub, 1998; Arnett & Jones, 1994; Lacity et al., 1994, Loh, 1994; Loh & Venkatraman, 1992; McFarlan & Nolan, 1995; Palvia, 1995). Other *financial* drivers to the outsourcing decision are cash requirements and reduced reliance on debt financing (Lacity et al., 1994; Loh & Venkatraman, 1992; McFarlan & Nolan, 1995). Key *technological* drivers include lack of internal technical capabilities, reducing technological risks, increasing technological flexibility, and accessing new technologies (Clark et al., 1995; Arnett & Jones, 1994; Grover et al.,1994; Loh & Venkatraman, 1992; Teng et al.,1995). Key *strategic* drivers include increase focus on core business, the desire to restructure the organization, improve the management of IS operations, link IS and business strategy (Clark et al., 1995, Grover & Teng, 1993; Lacity et. al, 1994; McFarlan & Nolan, 1995).

It is commonly assumed that an outside vendor can provide the same level of service at a lower cost than the internal IS department while the company can focus on its core competencies. However, there is no study that has empirically investigated this important issue as a whole. Also, most research studies have focused on rational decision making based on transaction cost and resource-based theories. Alternative decision models based on institutional and political theories have been largely ignored. With the current rush to outsourcing, there seems to be a bandwagon effect in outsourcing decision making (Ang & Cumming, 1997; Lacity & Hirchheim, 1993). There is clearly a need for more research investigating the underlying process leading to outsourcing decisions. Most studies have not distinguished the differences between the decision-making processes at small and large organizations. There is a need to investigate how the processes and decision drivers differ at organizations with different sizes and scales of resources. Furthermore, offshore outsourcing is on the rise. The decision process in offshore outsourcing may differ significantly from that in on-shore outsourcing. There is a need to study those differences in processes as well as offshore outsourcing decision criteria and drivers.

Vendor Search and Selection

After deciding to outsource, the firm goes to the next step of selecting the most suitable vendor who can provide IT services at the appropriate cost. From 118 articles we reviewed, only three focused exclusively on vendor selection and search (Michell & Fitzgerald, 1997; Perry & Devinney, 1997; Chaudhury et al., 1995). Few others touched on the idea of vendor selection in a broader context of the overall outsourcing process or contract negotiation and/or partnership formation (Au et al., 2001; Barthelemy, 2001; Lacity & Willcocks, 1998; Lee & Kim, 1997; Reilly et al., 2001; Willcocks et al., 1993). In general, vendor selection is the process of preparing a list of possible vendors and choosing the one or more based on certain criteria. The cost of service has been proposed as a major factor in the final bidding and vendor selection process (Michell & Fitzgerald, 1997). This decision-making process is also mostly viewed as a rational choice model in the IS literature. The client organization compiles a list of vendors based on issues of technical competence in terms of quality and service (Chaudhury et al.,1995) then it sends out "requests for proposal" (RFPs) to some vendors selected from the list based on certain criteria (Chaudhury et al.,1995; Michell & Fitzgerald, 1997). The invitation to tender (Michell & Fitzgerald, 1997) follows and a bidding process takes place (Chaudhury et al., 1995). Selection criteria (such as cost, service terms, and quality assurance) are applied to select the final vendor.

Thus, even in this stage, there seems to be a bias towards cost-efficiencies in the literature on vendor selection. Alternative decision models based on institutional and political theories have been largely ignored. Given the length and size of IT outsourcing contracts, vendor selection may involve power and politics. However, no study has investigated the importance of the role played by these factors in vendor selection.

Chaudhury et al (1995) have developed a model for vendor selection through bidding process. However, like any initial model, it imposes several restrictive assumptions. There is a need to develop a model that is less restrictive and more generalizable to other types of vendor selection processes. Often vendors are selected based on perceived complementaries between the organization's capabilities and vendor's capabilities (Levina & Ross, 2003). There is a need to develop matrices for finding and matching the gaps in internal firm resources and vendor resources for objective vendor selection. There is also need to study the impact of vendor business practices on vendor search and selection. For instance, vendor's security practices can be studied as an important determinant of vendor selection. Furthermore, research in vendor selection can focus on investigating the implications of reputation of and past experiences with a vendor in the selection of the vendor for a future project.

The Outsourcing Contract

A relatively large body of literature in IS research has focused on the outsourcing contract between the client organization and vendor with the theoretical bases of social contract theory and social exchange theory. The outsourcing contract specifies in detail the exchanges of services and/or products, financial matters, assets and/or staff transfers, communication and information exchanges, service enforcements and monitoring methods, key personnel, dispute resolution procedures and other formal issues (Halvey & Murphy, 1996; Willkocks & Kern, 1998). There are two main types of outsourcing contracts in the literature that follow from the type of outsourcing agreement, namely total outsourcing or selective outsourcing (Lacity el al., 1996). Total outsourcing is characterized by long-term mega-deals, ranging on average from seven to ten years, whereas selective outsourcing is characterized by short term contracts and outsourcing of only some IS functions (Ambrosio, 1991). The process of negotiation and contract drafting for total outsourcing generally takes on average six to eight months, but it may often result in imperfect protection when unanticipated events occur (McFarlan & Nolan, 1995).

Most IS researchers have looked at the outsourcing contract as the mechanism to develop a balance of power between the client organization and vendor. There is a need to evaluate the balance between the rigor and flexibility in contracts. Rigor can reduce the threat of opportunism by a vendor (Lacity & Hirschheim, 1993), but it can develop an arm's length relationship with the vendor. In such a shallow relationship, the firm may not benefit from the knowledge gained by the vendor through the outsourcing project. By building certain amount of flexibility in contract, the client organization can avoid lock-in.

Outsourcing contracts are perhaps more complicated than many other routine business contracts as they often involve the transfer or sale of assets, such as hardware, software, sites, people, etc to the vendor (Fitzgerald & Willcocks, 1994). There is a need to investigate the impact of outsourcing contract complexity on outsourcing relationship and success.

Furthermore, contract governance structure may have impact on successful negotiation and development of contract and on the quality of future partnership. It has been pointed out that a well-developed contract greatly influences the resulting quality of the relationship (Lacity & Hirschheim, 1993). However, no study empirically investigated this proposition.

Contracts may also play a significant role in reducing technical and business uncertainties by transferring them from the client organization to the vendor and vice versa. There is a need for additional studies that focus on contract governance structure and the role of contract in reducing these types of uncertainties.

Implementation

After the outsourcing contract has been negotiated and the clauses agreed upon, the implementation process begins. The service provider is supposed to establish the outsourced services according to the contractual clauses. The firm may set up a special inter-organizational coordination unit to facilitate a smooth implementation of outsourcing agreement (Lasher et al., 1991; Henderson, 1990). The actual implementation phase in the overall outsourcing process has not received much attention in the IS research. We found five articles that have investigated implementation issues. However, all of them analyzed implementation issues in a broader context by focusing on the implementation phase as a phase in the overall outsourcing process.

In the implementation phase, the outsourcing relationship between the organization and the vendor begins (Au et al., 2001). The client organization transfers the information required to develop and maintain the outsourced project to the selected vendor. Such activities as transfer of the business logic, systems and documentation take place (Au et al., 2001). There is a

clear need for empirical studies that investigate the conditions that assure or inhibit a smooth implementation, the process of knowledge and assets transfer to vendor and the cost and potential pitfalls in implementation process. Implementing an outsourcing agreement is often a complex process requiring effective management. Future research should focus on studying the effectiveness of project management concepts and practices in successful outsourcing implementation.

Operations and Relationship

A vast majority of studies have investigated the relationship in an outsourcing arrangement. In fact, the relationship between the client organization and the vendor is the second most researched topic in the overall outsourcing process, in the IS literature, after the initial decision to outsource. The outsourcing relationship has been studied mostly in an inter-organizational relationship framework using resource-dependence, transaction cost and agency theory, from an economic standpoint and social exchange theory and power-political theory. Previous IS research has classified the outsourcing relationship between organizations in two types (Lee & Kim, 1999): transactional style and partnership style. A transactional style relationship (Lacity & Hirschheim, 1993; Fitzgerald & Willcocks, 1994; Grover et al., 1996) develops through the formal contract in which rules of the game are well specified and the failure to deliver on commitments by either party should be resolved through litigation or penalty clauses in the contract. This approach can be traced down to the supplier-customer type of relationship. A partnership approach (Lee & Kim, 1999; McFarlan & Nolan, 1995; Saunders et al., 1997) includes risk and benefits sharing, the need to view the relationship as a series of exchanges without a definite endpoint based on trust and mutual understanding. This approach tends to view the relationship as an ongoing alliance (Klepper, 1995; McFarlan & Nolan, 1995). However, other authors (Lacity & Hirschheim, 1993) have posited that outsourcing providers cannot be strategic partners because they do not share the same profit motive. They suggest that vendor's profits increase whenever customer's costs increase, therefore they see the outsourcing vendor as simply a supplier and they recommend the enforcement of a tight contract as basis for the outsourcing relationship. In order to resolve such differences, future studies can investigate the mechanisms that promote and factors that inhibit the evolution from an arm's length relationship to strategic partnership over time. Also, future research can look at how such mechanisms can be implemented and factors that can be controlled in a longitudinal setting.

Some key constructs investigated in the literature that are posited to lead to a successful outsourcing relationship include trust (Sabherwal, 1999; Lee & Kim, 1999), business understanding, benefits and risk sharing, communication quality, information sharing, culture similarity, mutual goals and objectives (Lee & Kim, 1999; Willcocks & Kern, 1998). However, other factors can be equally important to a successful partnership. In this context, there is a need for studies that investigates other constructs pertaining to successful relationships such as real-time communication issues between partners and the role of the project coordinator and the project team to the success of the outsourcing relationship. Additionally, our analysis shows that there is no study that has investigated conflict management issues in outsourcing operations. Research should focus on effective conflict management in an outsourcing relationship as this can promote a successful outsourcing agreement.

Evaluation

Evaluation is the phase where the outcome of the outsourcing decision is measured against contract clauses such as the service level or performance goals (Lee & Kim, 1997). Only few articles have focused on evaluation and most of them did so in a broader context of the overall outsourcing process. Performance has been found to be a major factor when it comes to the evaluation of outsourcing projects (Lee et al., 2000). It is common to measure the outcome in terms of service satisfaction, system satisfaction, user satisfaction, service quality, cost-reduction, financial, or technical performance (Nam et al., 1996; Grover et al., 1996; Lee & Kim, 1999).

However, our analysis uncovered that there is no common instrument for evaluating the outcome of outsourcing. Objective and perceptive measures on different dimensions (such as project quality, vendor performance, productivity, financial issues, effectiveness, technical, data security, and employee morale) need to be developed and tested. There is also a need for a comprehensive, framework that integrates various performance measures in outsourcing. Having such a framework can also help develop more effective and detailed contracts (Aubert et al. 1996). Furthermore, the long-term outcomes from outsourcing IS need to be assessed, perhaps in a longitudinal setting. Additionally, there should be a careful analysis of evaluation criteria implemented in contract. As discussed by Clemons (2000), a "law of the wallet" holds in software outsourcing: If you pay for lines of code, you will get many lines of code; if you pay for testing, you will get lengthy test logs. Under these circumstances, there is need for elaborate evaluation matrices that take into account the specific benefits to both client and vendor.

Decision to renew or terminate the outsourcing relationship

At the end of the outsourcing period, a decision needs to be made whether to extend or terminate the current relationship with the current vendor. Lacity & Willcocks (1998) identified three options available to the client organization: extend the contract with the current vendor, switch vendors or bring the IT back in house. The articles identified in our review that addressed this issue did so again in abroad contest of the overall outsourcing process. No single article from the ones reviewed for this study independently addressed the decision to be made at the end of the outsourcing contract. There is a clear need for a lot of research in this area. For instance, there is a need to investigate the impact of client lock-in situations such as asset specificity, and lack of internal skills on the decision to renew or terminate. Other studies can focus on the factors that lead to dissolution of relationship and the steps involved in dissolving the relationship.

CONCLUSION

Academic interest in outsourcing continues to rise in parallel to increased interest in practice. In this study, we reviewed over 250 outsourcing related academic articles and identified 118 articles that centrally focused on IS outsourcing. We mapped each article based on its focus on a specific phase of the outsourcing process.

We found that research studies have focused more on some phases of the outsourcing process and much less on other. Even within more researched phases, studies have tended to focus more on one or few theories and not on many other plausible theories. For example, in outsourcing decision making, most studies have focused on transaction costs and resource availability, while not on other factors such as institutional and political factors. There is a need to greatly expand research in under-researched phases and incorporate alternate theories in all phases. Additional recommendations are as follows:

- Most research studies have the organization or outsourced project as the unit of analysis. There is a need for studies focusing on individuals, industries, and economies.
- Most research studies are cross-sectional in nature. There is a need for longitudinal studies. Outsourcing as a practice dates back to at least late 1980s. There have been academic studies on it as far back as in early 1990s (Loh & Venkatraman, 1992; Kiepper, 1992). Outsourcing practice and research are mature enough to carry out a longitudinal study that may even test this process model in full.
- Most studies have focused on outsourcing success, there are not many studies that have investigated failure in outsourcing.
- Most studies have investigated outsourcing from the client's perspective; only few studies have looked at outsourcing from the vendor's perspective (Levina & Ross, 2003).
- Most studies have looked at outsourcing with one vendor. There is a need for research on how the outsourcing process works with multiple vendors.

We also propose a list of specific research questions (Table 1) for each phase of the outsourcing process that future studies should address to fill the gaps identified in this study.

Decision to Outsource IS
Does an outside vendor provide the same level of service at a lower cost than the internal IS department?
What are the alternate theories that may explain outsourcing decision-making processes? Specifically, does the institutional or political theories explain current rush to outsourcing?
Do small and medium-sized organizations decide on outsourcing IT the same way as large organizations?
Do the decision drivers differ for small and medium-sized organizations versus large organizations?
Are the decision processes different for offshore versus onshore outsourcing?
Vendor Search and Selection
What are the matrices to evaluate vendor complementarities?
What role does power and politics play in choosing a vendor?
What is the impact of vendor reputation and past experience on vendor selection?
What role business practices of vendor play in vendor selection? Specifically, how do a vendor's security practices impact the selection of the vendor?
Contract
What is the right mix of rigor and flexibility to assure a successful outsourcing agreement? Specifically,

what are the key elements that permit a contract's ongoing adaptation over time while avoiding opportunistic re-pricing?
What is the impact of contract complexity on outsourcing relationships development and success?
How does contract governance structure affect negotiation and development of contracts? What kind of contract governance is more likely to lead to overall outsourcing success?
How can contracts increase or reduce business and technical uncertainties?
Implementation
What are the conditions that can assure or inhibit smooth implementation of outsourcing agreements?
What are the costs incurred by the client and vendor (such as time and effort to transfer assets/knowledge to the vendor) in implementing outsourcing agreement?
How should the implementation process be managed? Specifically, what are the pitfalls in implementation and how can they be avoided?
How can project management concepts and practices be effectively used in outsourcing implementation?
Operations/Relationship
How should conflict be managed in an outsourcing relationship?
Can other aspects of the relationship management (such as real-time communication issues, appointment of a project coordinator) contribute to a successful partnership?
What mechanisms and procedures the organization and vendor can set up to promote efficient exchange of knowledge developed through the outsourcing relationship?
How can a vendor mitigate the risk of security breaks in outsourcing operations?
Is there any power shift between the contractual parties before and after engaging in an outsourcing agreement? How does this impact the success of the outsourcing agreement?
Evaluation
What are the long term impacts of the outsourcing decision on the organization?
What are specific criteria for evaluating an outsourcing agreement? What criteria are more suitable for different types of outsourcing arrangement (such as total versus selective outsourcing)?
What metrics most benefit the client organization? What metrics most benefit the outsourcing vendor?
What metrics should be used to measure the success of the different aspects of the outsourcing project (i.e. project quality, vendor performance)?
What are the implications of vendor failure to perform on the business performance of an organization?
Decision to Renew or Not
What are the determinants of the decision to renew (or terminate) an outsourcing agreement?
What are the factors that determine an organization to switch vendors at the end of the outsourcing period?
What are the conditions that can determine an organization to bring the IT back in house at the end of the outsourcing period?
What are the steps involved in dissolving an outsourcing relationship?

Table 1: Specific Research Questions Requiring Further Investigation

This study has implications for both researchers and practitioners. To researchers, it provides an integrative framework that synthesizes current research and provides directions for future research. It offers a broad process view of IS outsourcing research and identifies specific research questions that require further investigation. To practitioners, it provides a process-view of the steps involved in outsourcing and how the activities performed in each steps can have impact on succeeding steps. This study also identifies important issues in each step that the managers and outsourcing vendors should critically observe as they decide on, operationalize, and implement their outsourcing agreements. Additionally, we also propose a comprehensive model that may help researchers identify distinct phases in outsourcing and managers manage outsourcing projects.

This study analyzed outsourcing research through a process view. Process view is often considered a tactical, micro-level view. There are many strategic and macro-level research issues in outsourcing that may not fit in a process view. Some of the issues include impact of outsourcing on strategic innovation capabilities of the industries and countries, development of strategic alliances and value networks through outsourcing, economic impact of offshore outsourcing on society, impact of outsourcing on labor-force and employment opportunities, impact of outsourcing on IT governance, and strategic risks in outsourcing.

Like other review papers, the findings presented by this study are based on in-depth review of published academic research in IS and management journals and ICIS proceedings. Articles published in journals in other fields, proceedings of other conferences, and working paper series, while may have direct relevance to IS/IT outsourcing, were considered beyond the scope of this study. Additionally, the study has only reviewed published research; research currently in progress and completed research under review may already have addressed some of the gaps identified in this paper.

The inherent characteristic of this manuscript, as a review paper, involves a large number of citations and makes it difficult to list them all in the conference proceedings.

References are available upon request from the first author.

APPENDIX A

Source	Number of articles
California Management Review	4
Communications of the ACM	9
Communications of the AIS	4
Decision Sciences	2
European Journal of Information Systems	7
ICIS Proceedings	15
IEEE Transactions on Engineering Management	4
Information Systems Research	3
Information and Management	8
International Journal of Information Management	8
Journal of Management Information Systems	7
Journal of the AIS	1
Journal of Information Technology	17
Journal of Strategic Information Systems	6
Management Science	6
MIS Quarterly	3
Organization Science	2
Sloan Management Review	11
Strategic Management Journal	1
Total	118

Outsourcing-Related Articles

APPENDIX B

Phase	Relevant articles
Decision	Altinkemer, Chaturvedi&Gulati(1994), Ang&Cummings(1997), Ang&Straub(1998), Apte&Mason(1995), Arnett&Jones(1994), Aubert, Rivard&Patry(1996), Baldwin, Irani&Love(2001), Bryson&Ngwenyama(2000), Buchowicz(1991), Buck-Lew(1992), Cachon&Harker(2002), Chalos&Sung(1998), Clerk, Zmud&McCray(1995), Fowler&Jeffs(1998), Goo, Kishore&Rao(2000), Gurbaxani(1996), Kern&Blois(2002), Ketler&Walstrom(1993), King(2001), King&Malhotra(2000), Klotz&Chatterjee (1995), Kraut, et al.(1999), Kurokawa(1997), Lacity&Hirschheim(1993), Lacity, Willcocks&Feeny(1996), Lacity&Willcocks(1998), Lee&Kim(1997), Lee, Huynh, Kwok& Pi(2003), Loh&Venkatraman(1992), Loh&Venkatraman(1995), Looff(1995), McKeen, Smith, Joglekar&Balasubramanian(2002), McLellan, Marcolin&Beamish(1995), Nam, Rajagopalan&Chaudhury(1996), Palvia(1995), Pinnington&Woolcock(1997), Poppo&Zenger(1998), Rao, Nam & Chaudhury(1996), Reponen(1993), Saarinen&Vepssalainen(1994), Seddon, Cullen&Willcocks(2002), Slaughter&Ang(1996), Smith, Mitra&Narasimhan(1998), Smithson&Heirshheim(1998), Sobol&Apte(1995), Teng&Cheon(1995), Wang, Barron&Seidmann(1997), Willcocks, Lacity&Fitzgerald(1993), Willcocks, Fitzgerald&Lacity(1996), Willcocks&Kern(1998), Yang&Huang(2000)
Vendor Search	Barthelemy(2001), Chaudhury, Nam&Rao(1995), Currie(1998), Kern, Willcocks&Van Heck(2002), Lacity&Willcocks(1998), Lewis(1999), Lee&Kim(1997), Lee, Huynh, Kwok& Pi(2003), Michell&Fitzgerald(1997), Palvia(1995), Perry&Devinney(1997); Willcocks, Lacity& Fitzgerald(1993), Willcocks, Lacity&Fitzgerald(1995), Willcocks, Lacity & Kern(2000)
Contract	Ambrosio(1991),Altinkemer, Chaturvedi&Gulati(1994), Aubert, Rivard&Patry(1996), Barthelemy(2001), Bahli&Rivard(2001), Bryson&Ngwenyama(2000), Chalos&Sung(1998), Currie(1998), Currie&Seltsikas(2001), Dayanand&Padman(2001), Domberger, Fernandez&Fiebig(2000), Feeny&Willcocks(1998), Fitzgerald&Willcocks(1994), Gopal, Sivaramakrishnan, Krishnan&Mukhopadhyay(2003), Halvey&Murphy(1996), Kern(1997), Kern, Willcocks&Van Heck(2002), Lacity&Willcocks(1998), Lee&Kim(1997), Lee, Huynh, Kwok& Pi(2003), Palvia(1995), Richmond&Seidmann(1993), Sabherwal(1999), Seddon(2001), Van Mieghem(1999), Vitharana&Dharwadkar(2002), Willcocks&Fitzgerald(1993), Willcocks, Lacity&Fitzgerald(1995), Willcocks&Kern(1998), Willcocks, Lacity&Kern(2000)
Implementation	Barthelemy(2001), Kern, Willcocks&Van Heck(2002), Lee&Kim(1997), Lee, Huynh, Kwok&Pi(2003), Palvia(1995), Payton&Handfield(2003), Seddon(2001), Willcocks, Lacity&Fitzgerald(1995), Willcocks, Lacity&Kern(2000)
Operations/Relationship	Barthelemy(2001), Bahli&Rivard(2001), Beulen&Ribbers(2003), Clerk, Zmud&McCray(1995), Clemons, Reddi&Row(1993), Currie&Seltsikas(2001), Elitzur&Wensley(1997), Feeny&Willcocks(1998), Fitzgerald&Willcocks(1994), Grover, Cheon&Teng(1996), Heckman(1999), Ho, Ang&Straub(2003), Kern(1997), Kern&Willcocks(2000), Kern&Willcocks(2002), Kern, Willcocks&Van Heck(2002), Kern, Kreijger&Willcocks(2002), Kern&Blois(2002), Kishore, Rao, Nam, Rajagopalan&Chaudhury(2003), Klepper(1995), Koh, Tay&Ang(1999), Lander, Purvis, McCray&Leigh(2004), Lacity&Willcocks(1998), Lee(2001), Lee&Kim(1997), Lee&Kim(1999), Lee, Huynh, Kwok&Pi(2003), Levina&Ross(2003), Loh(1994), McFarlan&Nolan(1995), Pinnington&Woolcock(1997), Sabherwal(1999), Tiwana(2003), Willcocks&Kern(1998), Willcocks, Lacity&Fitzgerald(1995), Willcocks, Lacity&Kern(2000), Ye&Agarwal(2003), Zviran, Ahituv&Armoni(2001)
Evaluation	Barthelemy(2001), Das, Soh&Lee(1999) Lee&Kim(1997), Lee, Huynh, Kwok&Pi(2003), Loh &Venkatraman(1995), Mcaulay, Doherty&Keval(2002), Seddon(2001), Sengupta&Zviran(1997), Smithson&Heirshheim(1998), Willcocks et al.(1995)
Decision to renew or terminate	Barthelemy(2001), Lee&Kim(1997)

Mapping of Outsourcing-Related Articles