A Comparison of the Risks in Information Technology Outsourcing and Business Process Outsourcing

Heiko Gewald
Johann Wolfgang Goethe Universitat Frankfurt am Main, heiko.gewald@hs-neu-ulm.de

Jochnen Franke
Johann Wolfgang Goethe Universitat Frankfurt am Main, jfranke@wiwi.uni-frankfurt.de

Follow this and additional works at: http://aisel.aisnet.org/amcis2005

A Comparison of the Risks in Information Technology Outsourcing and Business Process Outsourcing

Heiko Gewald
Institute of Information Systems
Johann Wolfgang Goethe University
Mertonstr. 17, D-60054 Frankfurt
Germany
gewald@wiwi.uni-frankfurt.de

Jochen Franke
Institute of Information Systems
Johann Wolfgang Goethe University
Mertonstr. 17, D-60054 Frankfurt
Germany
jfranke@wiwi.uni-frankfurt.de

ABSTRACT

While the issue of risk in information technology outsourcing (ITO) is addressed by numerous authors, the risks of business process outsourcing (BPO) are essentially unexplored. The authors propose that the risk structure of ITO is different compared to the one in BPO, the latter therefore requiring additional research. To challenge this proposition the major risks of ITO have been derived from literature and were assessed whether they apply differently to BPO engagements. The assessment has been conducted via structured interviews with senior business and risk mangers of BPO service providers and BPO customers.

Our findings indicate that, although the individual risk types are generally the same, they differ significantly in tendency. Fifteen individual risks were analyzed and the findings were that in BPO compared to ITO, two risks are classified to have a tendency to be lower and eleven risks are classified to have a tendency to be higher. Only two risks were seen to generally be the same in BPO as with ITO. Additionally, a risk type has been identified which was not formerly reported in outsourcing, namely the misuse of trust regarding sensitive data.

Keywords

Outsourcing Risk, Business Process Outsourcing, Information Technology Outsourcing

INTRODUCTION

The knowledge of the risks of outsourcing is of special importance as not every detail of the relationship between the parties involved can be specified a priori and incorporated in the outsourcing contract or service level agreements (Goldberg 1980; Kern 1997; Willcocks, Lacity and Kern 1999). Management in charge of the outsourcing decision needs to be aware of this fact and anticipate it within the decision process (Aubert, Patry and Rivard 2002).

We focus our research on business process outsourcing, a field which is characterized by huge significance as indicated by researchers (Lancellotti, Schein, Spang and Stadler 2003; Lacity, Willcocks and Feeny 2004; Willcocks, Hindle, Feeny and Lacity 2004) and practitioners (the worldwide market for BPO is estimated to rise from USD 110 Billion in 2002 up to USD 173 Billion in 2007 (Gartner 2004)) alike. Surprisingly, taking the activity of the number of publications with a focus on outsourcing into account, the research coverage of BPO is characterized by a *virtual absence of academic publications on the topic* (Rouse and Corbitt 2004, p.2).

The combination of risk in outsourcing and BPO as research objects leads to the research question tackled in this paper: Are the risks in ITO and BPO different, as suggested by Willcocks et al. (Willcocks et al. 2004)?

The aim of this paper is to extend the current knowledge of risk in outsourcing by addressing the question whether the differences within the risk structure of BPO and ITO are fundamental, justifying the case for further research on the particularities of risk in BPO. BPO is a very IT-intensive business (Lancellotti et al. 2003), therefore the role of the corporate IT department in the decision process and the following project execution cannot be underestimated. BPO has a vast impact

on the corporate IT architecture, the execution of its processes and its organizational structure, therefore a premier case for information systems (IS) research is given.

The financial services industry or more specifically the banking industry in Germany has been selected as research area. This has been done for two reasons: (1) The financial services sector is the second largest buyer of outsourcing services (just after public bodies) (Gartner 2004). (2) Due to the specific German regulation on outsourcing (Deutsche Bundesbank 2001), banks (and service providers for banks) in Germany have a similar understanding of outsourcing topics, which results in an inherently homogenous reference framework for the interviews.

Research Approach

Due to the lack of research on the risks of BPO, we chose an explorative research approach: (1) Derive the risks of ITO from current literature, (2) build propositions how these risks would apply to BPO, (3) test these assumptions in structured interviews with outsourcers (i.e. the companies that sources services out) and service providers (i.e. the companies that offer sourcing services) and (4) conduct and open discussion whether BPO shows risks that have not been derived from ITO literature.

Seven interview partners from five different companies have been selected opportunistically for timely availability for interviews, as they are directly or indirectly associated as sponsors or partners to our research institute; therefore the findings are not statistically representative. Nevertheless, the interviewees represent senior management of two large universal banks in Germany and cover two of the largest service providers in the German market.

The assessment of the individual risks is based on the authors' reasoning and has been evaluated and extended with remarks of the interviewees.

Further Research Path

This paper represents the first step in an ongoing research project. In future research, we will broaden our interview base in order to consolidate our findings and develop a model to analyze the influence of risk on the decision whether to engage in BPO. This model will then be tested in case studies with firms which decided for and against BPO. After refining the model, quantitative empirical research will be conducted to ground the findings with the final aim to gather detailed insights into the role of risk for the decision for or against BPO (see (Gewald 2005)).

THE OUTSOURCING ENGAGEMENT

Different Types of Outsourcing

For the purpose of this paper we chose a broad perspective to **outsourcing** and regard it to be the disinvestment of all or parts of specific IT-enabled corporate functions and the re-purchasement of those services from one or more external vendors (this definition has been inspired by the arguments of de Looff (De Looff 1995).

We segregate the following four types of outsourcing for further reference: In analogy to Earl's definition, **information technology outsourcing** is defined as *outsourcing hardware-orientated IT activities such as data centre operations* (Earl 1996). This definition includes a variety of activities like user helpdesk services, network management etc. Based on the definition of the CompTIA Software Services Group (formerly known as the Application Service Provider Industry Consortium - ASPIC), **application service providing** (ASP) is defined as *managing and delivering application capabilities to multiple entities from a data centre across a wide area network*. **Business process outsourcing** is defined as *outsourcing one or more specific business processes together with the IT that supports them* (Halvey and Melby 2000) where a business process is defined as *a set of logically related tasks performed to achieve a defined business outcome* (Davenport and Short 1990).

Phases of Outsourcing Engagements

The process of outsourcing can be separated into seven main phases (based on (Ilie and Parikh 2004)): During the pre-deal phase the opportunities deriving from outsourcing will be analyzed ("decision to outsource"). Using tools like business case

calculation, core competency examination, critical success factor analysis etc. the corporation assesses the potential gains and drawbacks from outsourcing, finally answering the question if and what to outsource. This decision already needs to take the risks potentially arising within the later operations/relationship phase into account. The contractual phase comprises the vendor selection process and the contract negotiation ("vendor selection" and "outsourcing contract"). Within these phases, the outsourcing object needs to be specified in sufficient detail, including service level agreements etc. Within the implementation phase processes, systems, and people are handed over from outsourcer to service provider. This phase has typically the status of a project. Usually the longest phase, lasting several years, is the operations/relationship phase in which the business will be provided from outside resources. This phase actually becomes a steady state for the time the outsourcing engagement lasts. Finally, the exit phase needs to be considered, when the outsourcer decides not to renew the contract and the outsourced resources are either being handed over to another vendor or re-integrated back into the company that formally gave them away.

The segregation of different phases is important, as every phase bears specific risks. For further analysis we concentrate on the operations/relationship phase, the point in time when the client has no direct control on the outsourced employees, processes and information systems any more. After entering the operations/relationship phase (arguably also within later stages of the implementation phase), a point of no return is reached, resulting from severe costs to terminate the outsourcing engagement (Rouse and Corbitt 2004). The consequences of this irreversibility are our motivation to investigate the risks associated with this phase.

COMPARING THE RISKS OF ITO AND BPO

We start with a review of the literature on the risk of outsourcing in ITO and ASP engagements (for the sake of readability we do not explicitly refer to ASP in the following, we will also use the term "traditional outsourcing" for ITO and/or ASP engagements). As a starting point we chose a review of the literature on the risks of outsourcing, conducted by (Gewald and Hinz 2004) and updated this basis with papers which became available in the meantime. We extracted the stated risks, aggregated and applied them to the phase model mentioned above.

Based on this list, we derived propositions on the tendency of the individual risk of ITO, if applied to BPO. The tendency of the risks in BPO could be higher, lower or the same compared to traditional outsourcing. The reasoning for our proposition was derived analytically.

As research in this field is still rather exploratory due to the small number of publications, we conducted interviews with senior management of selected BPO-customers and service providers. Six interviews with seven interview partners of five different entities (labeled A-E) have been conducted (see **Error! Reference source not found.**). Two entities were providers of BPO (both amongst the largest firms within their peer group), two were major internationally active banks with headquarters in Germany (accounting for two of the four largest banks in Germany) and one entity was a medium-sized consulting company specialized in BPO consulting. As our interview partners asked for confidentiality, their names and employers remain anonymous.

Role of Interview Partner	**Employer of Interview Partner**
Two senior risk managers	Large German bank (A) operating as BPO client
Senior operational risk manager	Large German bank (B) operating as BPO client
Senior BPO business manager	Large IT services firm (C) operating as BPO provider
Member of the board (COO)	Large German BPO provider (D)
Head of retained organization	Large German bank (B) operating as BPO client
Member of the board	Medium-sized Consulting firm (E), specialized in BPO consulting

Table 1: Interview Partners

The role of the interview partners were either within operational risk management or as business management in charge of a specific BPO deal. The interviewees had an experience of five to fifteen years in their respective field and all of them were experienced in ITO and BPO engagements. The meetings which lasted between 1.5 and 2.5 hours were prepared as structured interviews, presenting the risks derived from literature and our analytically derived propositions regarding the tendency to the interview partners. Each interview ended with an open discussion on the specific risks of BPO. The outcomes of the discussions were incorporated and revised our propositions. Remarks of special interest or importance were recorded separately.

Risk in Outsourcing

Building on the concept of seven phases of the outsourcing engagement, we associated the individual risks to the phase of their origin and also classified some risks as general risks or problems of outsourcing. All risks not specifically referring to the operations/relationship phase or associated with other phases in outsourcing agreements have been excluded from our analysis.

An incorrect sourcing scope, a small number of available suppliers and asset specifity are risks closely associated with the pre-deal phase of the outsourcing arrangement (Bahli and Rivard 2003). In the contractual phase incomplete or incorrect contracting are frequently stated risks (Barthelemy and Geyer 2001; Aubert et al. 2002). Finally, project management risks like not meeting deadlines, fuzzy scope, multiple objectives, hidden and unexpected costs, budget overrun or transition failure (Earl 1996; Kern, Willcocks and Lacity 2002b) are subject to the transition phase and not included in our investigation.

The remaining risks are assumed to be relevant within the operations/relationship phase and have been classified based on the outcome of the interviews as stated below. For structuring the interviews, we introduced four risk areas, namely maturity of the BPO market, complexity of business process, extent of human interaction and competitiveness/specifity (see Figure 1). The individual risks are associated to a risk area by their shared main origination. The classification has been discussed with our interview partners giving support to this classification.
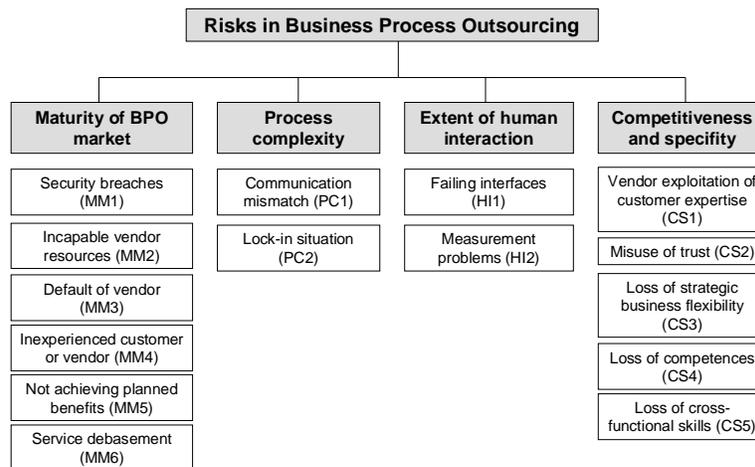

Figure 1: Risks in Business Process Outsourcing

Comparing the Risks

In this section the outcome of the interviews is displayed. The interviewees stated, based on their experience, whether they regard the individual risks of BPO as higher, lower or the same compared to those of ITO. In the following, reasoning on the stated tendency and additional remarks of our interview partners are given.

Security breaches (MM1) in IT-systems are widely identified as a risk in outsourcing arrangements (Kern et al. 2002b; Khalfan 2004). Our interview partners stated that this risk's tendency is same to higher in BPO compared to ITO. The risk may increase if the execution of the process requires the service provider to access an IT-system which has not been designed to allow for access to just a limited area of its data. In this case it may turn out to be very difficult to comply with current security standards and regulations. One interview partner indicated that this risk may increase gradually if a new vendor is chosen who did not yet have access to IT-systems, thus increasing the total number of parties with access rights which may add to a decrease of oversight for the outsourcer.

As the BPO market is the least mature outsourcing market, the risk of **incapable vendor resources** (MM2) (Kern, Kreijger and Willcocks 2002a) has an inherent tendency to be same to higher in BPO compared to ITO. The magnitude of this risk strongly depends on the maturity and specific structure of the business process to be sourced out. For a process of low to medium complexity, which is usually the more mature process with regard to outsourcing, the risk of incapable vendor

resources can be seen as equivalent to ITO. If the process is more complex and less standardized, it does generally not have a long track record in outsourcing. All our interview partners quoted this risk as being a major risk of business process outsourcing.

The **default of vendor** (MM3) during the operations/relationship phase of the outsourcing contract is a further risk identified in outsourcing literature (Kern et al. 2002a). The insights taken from the interviews suggest that in general the risk is about the same as with traditional outsourcing. One interviewee mentioned that an exception occurs if outsourcing is offered by a small firm which is new to the market and therefore more likely to default than larger, more experienced vendors.

Unrealistic expectations on outsourcer or vendor side due to **inexperienced outsourcers or vendors** (MM4) (Bahli and Rivard 2003) represent a risk which our interview partners state to be definitely higher in BPO. Due to the maturity of BPO, experience with BPO is lowest for outsourcers and vendors. Therefore the risk to fall to errors due to lack of experience is generally assumed to be greater. Analogue to the risk of incapable vendor resources, the level of experience depends on the maturity of the market regarding the individual process in question.

The degree of **not achieving the originally planned benefits** (MM5) in the operations/relationship phase is often used as an indicator for outsourcing performance and success (Bahli and Rivard 2003). The associated risk factor is stated to exhibit a higher to same tendency in BPO. The less experienced both parties are, the higher the risk compared to ITO.

The final risk of the first risk area is **service debasement** (MM6) which refers to a creeping service quality reduction over time (Aubert et al. 2002). In this case, the stated tendency is same to lower. Generally, there seems to be no difference between ITO and BPO with respect to decreasing service quality.

Differences in functional and procedural agreements resulting in **communication mismatches** (PC1) are supposed to be a risk in outsourcing relationships (Alexander and Young 1996). All our interview partners strongly suggest that the risk's tendency is clearly lower in BPO compared to ITO. As the external production of business processes requires well documented processes (especially if the process falls under banking regulation, see section V-3 of (Deutsche Bundesbank 2001)), the danger of misinterpretation is regarded as being lower. This proves specifically true, if the contract is also based on interfaces and bilateral deliverables, not solely on process descriptions. One interviewee added that with BPO compared to ITO it is the fact that on outsourcer and vendor-side business process professionals are talking to each other, thus reducing the potential for misunderstandings as the vendor needs to take care that his IT department implements the business process correctly. In ITO on the contrary often business professionals have to interact directly with IT professionals and their respective mentalities and terminology.

The outsourcer's dependence on the vendor resulting from the transfer of specific assets or the difficulty to backsource a specific function can lead into a **lock-in situation** (PC2) and is extensively discussed in IS-literature (e.g. (Aubert et al. 2002)). Our interviewees assign a tendency to this risk to be same to higher in BPO. Firstly, the level of standardization and complexity of the process plays a major role as a driver of this risk. The more customer-specific a process, the greater the difficulties associated with a switch to another service provider. Secondly, the maturity of the market has a significant influence as the dependence on a vendor may change over time when the market gets more mature and a significant number of service providers are available to offer "plug-and-play" business processing, thus empowering the outsourcers to more easily switch vendors if the service is not satisfying anymore. One interviewee added that this risk is regarded as severe whenever specialist employees leave the company in accordance with the deal arrangements and therefore, in-house process competence is lost (see also risks CS4 and CS5).

The issues associated with the interfaces between outsourcer and service provider have been raised by researchers (Alexander and Young 1996) and regulators (Deutsche Bundesbank 2001; BIS 2004) alike. Assuming that the execution of a business process requires more human interaction between outsourcer and service provider than traditional outsourcing, the chance of **failing interfaces** (HI2) is higher, due to communication mistakes. Our interview partners regarded this risk as severe and stated a tendency to be higher in BPO. Choice and design of interfaces between both partners is seen as crucial for an engagement's success.

The second risk in this area, **measurement problems** (HI2) refers to the difficulties in assessing the service provided by the outsourcer (Bahli and Rivard 2003). Our interview partners state the risk as being same to higher. Depending on the scope of process, the measurement of the fulfillment of services is more difficult for BPO than traditional outsourcing. If the measurement points and objects are clearly defined and can be measured, the risk is about the same as in ITO. Some interview partners regarded the level of human interaction within the process as a good proxy to anticipate potential measurement problems.

The risk of **exploitation of outsourcer's expertise** (CS1) (Kern et al. 2002a) is regarded to exhibit the same tendency in BPO and ITO. Assuming that the outsourcer does not outsource core competencies, the service provider has no incentive to exploit the inherent expertise. In BPO engagements the transfer of professional knowledge is often desired as employees of the outsourcer are transferred to the vendor. This knowledge transfer is intended by both parties and does not refer to an exploitation of the outsourcer's know-how.

Trust is a fundamental component in outsourcing relationships and the **misuse of trust** (CS2) is a crucial risk for the overall outsourcing engagement. This risk had not been within the initial list of risks derived from literature. It was raised in the first interview by interview partner (A) who represented an outsourcer. All other interview partners also strongly underpinned the major role of this risk and stated it to be higher in BPO compared to ITO. For executing outsourced business processes, employees of the service provider need to work with actual client data. Especially in the banking industry this data is rather sensible. One of our interview partners (a service provider) reported the fear of his clients that employees of the service provider could pass on information about the securities portfolios handled in daily work (the outsourced process was securities settlement) to colleagues working for the outsourcers competitors. *As long as there is no technically feasible way to hide client names in banking processes, this risk is persistent and for some banks a major inhibitor to outsourcing back office processes* (interviewee D).

Firms engaging in outsourcing face the risk of **losing business flexibility and innovation capacity** (CS3) as an external provider might not be as flexible and easily controllable as an internal business unit (Lacity 2002). As external providers of business process functionality rely on a one to many business model (Kern et al. 2002b), they inevitably need to provide their clients with standardized processes to achieve economies of scale. This limits the outsourcer's flexibility to change the business process quickly to react to changing market requirements or business opportunities. In our interviews, the risk is assumed to be higher in BPO compared to IT outsourcing, as the driver for flexibility and innovation in the financial services sectors are more likely business processes than hard- and software. One interviewee (B) remarked that *as processes which offer competitive advantages should be kept internally, the outsourced processes are regarded as not carrying significant potential for first mover advantages.*

The **loss of competence** (CS4) as former internal units no longer deliver certain services that are handed over to the service provider is a frequently cited risk (e.g. (Quinn and Hilmer 1994)). As our interviewees stated, the risk to loose competences is gradually higher in BPO than in traditional outsourcing. Assuming that the outsourced process is not one that carries competitive advantage, the loss of competences in this field is of minor importance.

Finally, all interview partners agree, that the risk of **loss of cross functional skills** (CS5) (Quinn and Hilmer 1994; Bahli and Rivard 2003), i.e. loosing employees who are knowledgeable of more than one process, thus overseeing the interfaces between many processes or business and IT matters, in BPO is the same as in ITO.

Summary of Findings

Figure 2 depicts a graphical overview of the findings of our interviews. The individual risks clustered into four risk areas are allocated according to their relative tendency in BPO compared to ITO, based on the interviews conducted.

Our findings suggest that the risks in BPO and ITO are fundamentally the same, but differ significantly in tendency. Comparing traditional outsourcing and BPO, two risks are classified to have a tendency to be lower, two remain the same and eleven risks are classified to have a tendency to be higher.

Additionally one risk of BPO has been identified (misuse of trust) which has previously not been reported as being a major risk of ITO. More research on the special risk of BPO seems to be necessary.

Limitations of the Study

Due to the currently faint theoretical background, we conducted an explorative analysis through interviews with professionals from a risk management and a BPO background to test our propositions regarding the relevant risks. Our findings cannot be generalized due to the limited number of interviews conducted. Therefore, a broader empirical base in order to confirm the change in the risk structure of German banks due to BPO, as well as an assessment of risk mitigation strategies is subject to further research.
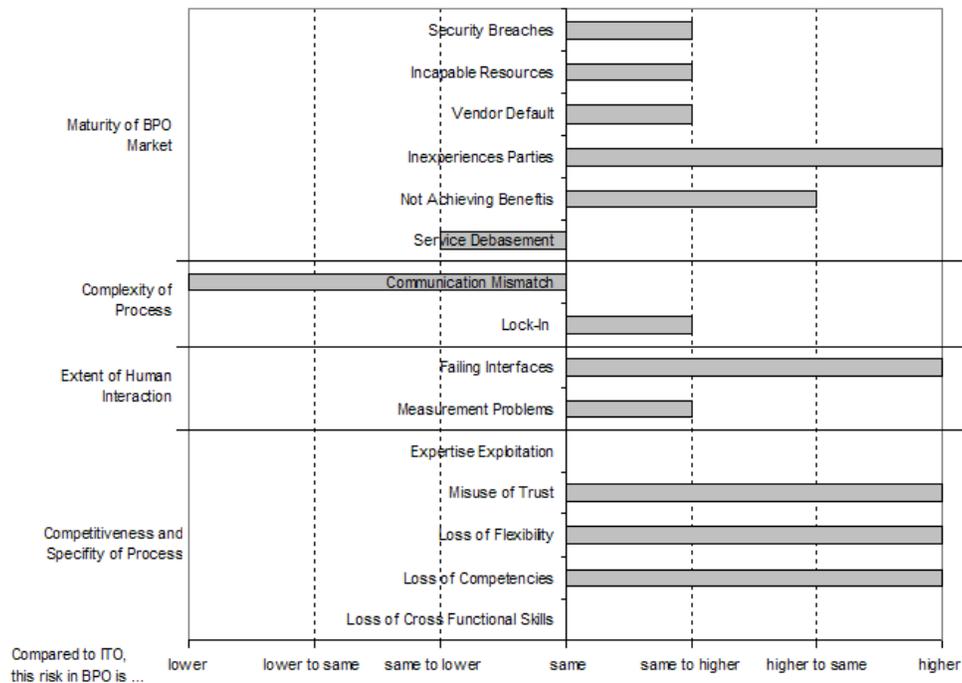
Figure 2: Comparison of Risks in BPO and ITO

CONCLUSION: RISK IN BUSINESS PROCESS OUTSOURCING

As a survey of the outsourcing literature shows, risks in ITO and ASP have been addressed by numerous authors whilst there is little research on risks in BPO. Analyzing the phases of an outsourcing engagement reveals that the operations/relationship phase bears the highest risk since direct control is handed over from outsourcer to vendor. Focusing on this phase the risks of BPO have been compared to those of ITO, conducting structured interviews with subject matter experts.

Our findings suggest that the risks in traditional outsourcing and BPO are fundamentally the same, but differ significantly in tendency. In process outsourcing, compared to ITO, two risks are classified to have a tendency to be lower, two remain the same and eleven risks are classified to have a tendency to be higher. Four risk areas, namely maturity of the BPO market, complexity of business process, extent of human interaction and competitiveness were identified.

One risk has been identified which has previously not been reported as a risk of outsourcing, the risk of misuse of trust.

This paper fulfilled its purpose in answering the question whether the risks of ITO and BPO are the same, or not. It shows that ultimately BPO and ITO share equal risks but the respective peculiarities of the different risks seem to be differing. The findings have been presented on three practitioner's conferences and workshops, gaining supportive comments from experienced business and risk managers. Although the empirical base is weak the way ahead is indicated unanimously by all our interview partners: The risks of BPO differ from those of ITO and call for more research.

REFERENCES

1. Alexander, M. and Young, D.; *Strategic Outsourcing*, Long Range Planning, (29:1), 1996, pp. 116-119.
2. Aubert, B. A.; Patry, M. and Rivard, S.; *Managing IT Outsourcing Risk: Lessons Learned* in: Hirschheim, R., Heinzl, A. and Dibbern, J. (Eds.); Information Systems Outsourcing - Enduring Themes, Emergent Patterns and Future Directions, Springer, Berlin, 2002, pp. 155-176.

3. Bahli, B. and Rivard, S.; *A Validation of Measures associated with the Risk Factors in Information Technology Outsourcing*, 36th Hawaii International Conference on System Sciences, 2003.

4. Barthelemy, J. and Geyer, D.; *IT Outsourcing: Evidence from France and Germany*, European Management Journal, (19:2), 2001, pp. 195-202.

5. BIS; *International Convergence of Capital Measures and Capital Standards*, Bank for International Settlements, Basel Committee on Banking Supervision, 2004.

6. Davenport, T. H. and Short, J. E.; *The New Industrial Engineering: Information Technology and Business Process Redesign*, Sloan Management Review, (31:4), 1990, pp. 11-27.

7. De Looff, L. A.; *Information systems outsourcing decision making: a framework, organizational theories and case studies*, Journal of Information Technology, (10), 1995, pp. 281 - 297.

8. Deutsche Bundesbank; *Circular 11/2001 - Outsourcing of operational areas to another enterprise pursuant to section 25a (2) of the Banking Act*, Frankfurt am Main, 2001.

9. Earl, M. J.; *The Risks of Outsourcing IT*, Sloan Management Review, (Spring), 1996, pp. 26-32.

10. Gartner; *Outsourcing Market View, What the Future Holds*, Management Update, G-00-121295, 2004.

11. Gewald, H.; *The Influence of Perceived Risk and Perceived Usefulness on Manager's Attitude Towards Outsourcing*, 11th Americas Conference on Information Systems, Omaha, NE, USA, 2005.

12. Gewald, H. and Hinz, D.; *A Framework for Classifying the Operational Risks of Outsourcing*, 8th Pacific Asia Conference on Information Systems, Shanghai, PR China, 2004.

13. Goldberg, V. P.; *Relational Exchange*, American Behavioral Scientist, (23:3), 1980, pp. 337-352.

14. Halvey, J. K. and Melby, B. M.; *Business Process Outsourcing - Process, Strategies and Contracts*, John Wiley & Sons, New York, 2000.

15. Ilie, V. and Parikh, M.; *A Process View of Information Systems Outsourcing Research: Conceptual Gaps and Future Research Directions*, 10th Americas Conference on Information Systems, New York, United States, 2004.

16. Jurison, J.; *A Risk-Return Model for Information Technology Outsourcing Decisions* in: Willcocks, L. P. and Lacity, M. C. (Eds.); Strategic Sourcing of Information Systems, John Wiley & Sons Ltd,, Chichester, 1998, pp. 187-204.

17. Kern, T.; *The Gestalt of an information technology outsourcing relationship: an exploratory analysis*, Eighteenth international conference on information systems, Atlanta, Georgia, United States, 1997.

18. Kern, T.; Kreijger, J. and Willcocks, L. P.; *Exploring ASP as sourcing strategy: theoretical perspectives, propositions for practice*, Journal of Strategic Information Systems, (11), 2002a, pp. 153-177.

19. Kern, T.; Willcocks, L. P. and Lacity, M. C.; *Application Service Provision: Risk Assessment and Mitigation*, MIS Quarterly Executive, (1:2), 2002b, pp. 113-126.

20. Khalfan, A. M.; *Information security considerations in IS/IT outsourcing projects: a descriptive case study of two sectors*, International Journal of Information Management, (24), 2004, pp. 29-42.

21. Lacity, M. C.; *Lessons in Global Information Technology Sourcing*, Computer, (August), 2002, pp. 26 - 33.

22. Lacity, M. C.; Willcocks, L. P. and Feeny, D. F.; *Commercializing the Back Office at Lloyds of London: Outsourcing and Strategic Partnerships Revisited*, European Management Journal, (22:2), 2004, pp. 127-140.

23. Lancellotti, R.; Schein, O.; Spang, S. and Stadler, V.; *ICT and Operations Outsourcing in Banking*, Wirtschaftsinformatik, (45:2), 2003, pp. 131-141.

24. Quelin, B. and Duhamel, F.; *Bringing Together Strategic Outsourcing and Corporate Strategy: Outsouring Motives and Risks*, European Management Journal, (21:5), 2003, pp. 647-661.

25. Quinn, J. B. and Hilmer, F. G.; *Strategic Outsourcing*, Sloan Management Review, (35:4), 1994, pp. 43-55.

26. Rouse, A. and Corbitt, B.; *Minimising risks in IT outsourcing: Choosing target services*, 7th Pacific Asia Conference on Information Systems, Adelaide, 2003.

27. Rouse, A. C. and Corbitt, B.; *IT-supported business process outsourcing (BPO): The good, the bad and the ugly*, Eight Pacifc Asia Conference on Information Systems, Shanghai, China, 2004.

28. Willcocks, L.; Hindle, J.; Feeny, D. F. and Lacity, M. C.; *IT and Business Process Outsourcing: The Knowledge Potential*, Information Systems Management, (Summer), 2004, pp. 7-15.

29. Willcocks, L. P.; Lacity, M. C. and Kern, T.; *Risk Mitigation in IT outsourcing strategy revisited: longitudinal case research at LISA*, Journal of Strategic Information Systems, (8:3), 1999, pp. 285-314.

30. Young, P. C. and Hood, J.; *Risk and the Outsourcing of Risk Management Services: The Case of Claims Management*, Public Budgeting & Finance, (23:3), 2003, pp. 109-119.