

Evaluating Motivational Factors Involved at Different Stages in an IS Outsourcing Decision Process

Linda Bergkvist¹ and Björn Johansson²

¹Department of Information Systems, Karlstad University, Sweden

²Jönköping International Business School, Jönköping University, Sweden

Linda.Bergkvist@kau.se

Bjorn.Johansson@ihh.hj.se

Abstract: This study evaluates factors involved at different stages in an IS outsourcing decision process. From a theoretical perspective, the motivation for IS outsourcing is often described as a result of three factors: cost reduction, access to technological expertise and focus on core competence. The aim of this paper is to evaluate motivational factors in an outsourcing decision process. The study uses a literature review and a retrospective case study of an outsourcing project in a large Swedish organisation. The idea is to evaluate if there are different factors involved at different stages in an IS outsourcing decision process. It has been found that the cost perspective is often used as a way of motivating the start of the process as well as the result of the process. However, during different stages other factors are involved. The results, based upon the case study, show that the size and reputation of the provider as well as thoughts about the provider's ability to deliver required capability is more important than cost reduction. It can be argued that the impact of IS outsourcing on performance and value of an organisation's IS function can be both positive and negative. To minimise the odds of a negative result, this paper contributes with an evaluation of motivational factors involved at different stages in an IS outsourcing decision process. If they are duly addressed, the chances of a successful IS outsourcing process will improve significantly.

Keywords: IS outsourcing decision process, motivational factors, case study, stages in decision-making process

1. Introduction

In this paper we focus on motivational factors that appear when organisations outsource their IS functions. Generally speaking, outsourcing means using external providers for managing one or more business activities (Lacity and Hirschheim 1993). Dibbern et al. (2004) state that there is a clear difference between general outsourcing and IS outsourcing – the difference being that IS outsourcing is almost always noticeable throughout the organisation. Furthermore IS is not a homogenous function but rather it affects in some way, almost all of an organisation's activities. As a result, the significant difference is that IS outsourcing is not easy since information systems are involved in many business related processes. This makes it a rather difficult task, which also is oftentimes reflected in research papers and popular magazines. An article presented in a Swedish popular magazine claims that IS outsourcing fails in about 60 percent of all cases (ComputerSweden 2005). A report quoted in Lonsdale (1999) and McIvor (2000) shows that only five percent of the companies included in the survey achieved significant benefits from IS outsourcing. The common denominators seem to be lack of proper management, unclear expectations in the relationship between the provider and the client, and a lack of formal decision-making processes. Similar conclusions are made by De Loof (1995), who argues that a system-wide analysis is rarely performed prior the decision-making of IS outsourcing. De Loof points

out that this stage is of great importance to avoid problems in the future. An IS outsourcing decision has long-term impact and should therefore be based on a long-term IS strategy that takes the business strategy into consideration. Clearly, the decision process of IS outsourcing is of great importance.

Earlier research have examined the decision process of IS outsourcing as a single stage. The difference and contribution of this paper is to split the IS outsourcing decision process into five steps and see how different factors motivate management during the decision process. The aim of this paper can be said to be twofold. First, to find out, through a literature review, which factors are motivational during an IS outsourcing decision process. Second, to evaluate, by using a retrospective case study of an IS outsourcing project, whether or not these motivational factors are relevant during the IS outsourcing decision process and how the motivational factors change. The remainder of the paper is structured as follows: the second section presents the research methodology providing a description of how the study was made. It is followed by a presentation of theoretical and empirical findings. Based on these findings, section four presents and discusses how different factors are involved at different stages in an IS outsourcing decision process. Finally conclusions and further research are presented.

2. Research methodology

The perspective used in this paper is client management and focus is on which factors influence the IS outsourcing decision process at an organisational level. To arrive at presented conclusions, a literature review has been done complemented by a case study. The review has emphasised existing research on IS outsourcing and more precisely the factors motivating the process and in particular the decision process. The literature was collected through searches in databases belonging to the IS area. Words used during the search were *IS outsourcing, decision, decision process, outsourcing, evaluating process, motivational factors, and outsourcing process*. By reviewing citations of relevant articles prior relevant work was identified. The search continued until the amount of applicable work had reached a more mature level and when further searches did not turn up with anything new and relevant. The chosen literature consists of popular magazines, normative books, papers and empirical studies. This selection of sources provides views from different disciplines, which we believe enrich the results presented. The review in this paper summarises relevant literature and describe the factors seen as motivational during the IS outsourcing decision process. To compare the theoretical findings a case study was executed in the form of a major outsourcing decision project in an organisation called MeLo (Messaging and Logistics). The outsourcing project was one purpose of an initiative, called EffectIT, to increase the effectiveness and efficiency of the organisation's IT, including IT use, governance, management, and operations. The data on the organisation and the project was collected through semi-structured interviews with the CIO of the IT-unit and the Chief Controller of the case organisation. Additional data comes from annual reports from 2001 to 2004 and information on MeLo's website. Data was also gathered from an internal report on the outsourcing project. From empirical data, descriptions of the outsourcing project have been generated by listening to tape-recorded interviews and comparing statements with the notes that were taken during the interviews as well as with the other documents. This means that statements in the interviews as well as in the documentation have been compared with each other to gain a higher understanding of the context of the statements. The analysis of the generated description aimed at identifying factors seen as motivational with background to the literature review but also to find new factors motivating management during the IS outsourcing decision process.

3. Results

In this section we describe the results from the literature review as well as MeLo's outsourcing project.

3.1 Literature review

From a theoretical perspective the initial motivation for IS outsourcing is often illustrated as a result of three factors: cost reduction, access to technological expertise and focus on core competence (e.g. Ketler and Walstrom 1993, Cronk and Sharp 1998, Lacity and Willcocks 2001, Bahli and Rivard 2005). Sometimes these factors are used by management as justification for IS outsourcing without them really having considered *why* outsourcing is an alternative for the organisation (ComputerSweden 2006a). The cost reduction factor is often seen as a positive reason for outsourcing (e.g. Cronk and Sharp 1998, Harland et al. 2005, Ketler and Walstrom 1993, Mclvor 2000, Tafti 2005, Yang and Huang 2000, Lacity and Willcocks 2001) and a survey accomplished by Zhu et al. in 2001 showed that 59 percent of 176 US corporations outsource with reducing costs as the main motive. The cost perspective could be said to include two motivational factors, cost savings and to get more predictable IS costs. Another factor seen as motivational during the early stage in an IS outsourcing decision process is the organisation's capability to stay competitive, since the provider is providing the organisation with external expertise (Yang and Huang 2000). This is supported by Gonzales et al. (2005) and Zhu et al. (2001) who mention hiring and retaining highly trained technology professionals and gaining access to external expertise are reasons for IS outsourcing in an early stage. Many executives in companies are motivated by IS outsourcing since it facilitates a focus on more strategic issues and the importance of core competencies (Gonzales et al. 2005, Lacity and Willcocks 2001). Also studies done by Tafti (2005), Harland et al.(2005), Zhu et al. (2001), and Mclvor (2000) mention focus on core competencies as a reason for organisations to turn to IS outsourcing.

Once the early stage of the IS outsourcing decision process has passed, other motivational factors become relevant. One of these is characterised by the relationship between the provider and the client. When choosing a provider it is essential that the provider meets the demanded capability and that it is aiming for an open and close relationship with the client. A way of reaching this is through a well-worked contract and close discussions between those involved. The signed contract should favour both parties (Saunders et al. 1997). The provider's stability

(McFarlan and Nolan 1995), reputation and mentioned quality are also of great interest (Diromualdo and Gurbaxani 1998, Gupta and Gupta 1992). A survey done by a Swedish IS outsourcing provider shows that the most important factor when a Swedish organisation chooses an outsourcing provider is the provider's reputation (ComputerSweden 2006b). It is also important that the provider understands the client's business strategy and goals, which will increase the possibility to achieve the client's aim. When deciding upon an outsourcing provider, it is according to Ketler and Walstrom (1993) consequently important to consider questions like: what experience the provider has from outsourcing; how familiar the provider is with the client's industry; is the provider addressing future plans for upgrading the technology and is the provider likely to remain in business for the duration of the contract?

It is also critical for management to consider which business activities belong to the core of the organisation. When deciding upon this it is important that all involved parties are present. Communication about what is going to be outsourced or not is crucial for a successful IS outsourcing process (Lacity and Hirschheim 1994b). The strategic business functions should be kept in-house. The risk is otherwise that the organisation loses control over its strategic core activities (Ketler and Walstrom 1993). From this view it is important to realise that IS outsourcing is not just about saving money, rather it is about

making strategic decisions about which IS functions to outsource to stay competitive (Lacity and Hirschheim 1994b). This means that a match between the IS outsourcing strategy and the overall business strategy is of great importance.

3.2 The outsourcing project of MeLo

The section describes a major outsourcing project in an organisation called MeLo. MeLo is a large public Swedish organisation that focuses on Messaging and Logistics. The structure of the organisation consists of six different business units (BU): Market communication, Administrative communication, International mail, Outsourcing, eCommerce and logistics, and Individual. In addition to these BUs there are three units acting as support units: IT, Production, and Support. In 2003, MeLo made the decision to use an external partner for hosting of IT. An outsourcing project started in 2002 and it was completed in 16 months and resulted in a contract for six years that was signed with a major provider of IT. The IT outsourcing decision-making process was conducted as a project, which comprised five steps: 1) request for information and invitation of tender, 2) tender invitation, 3) evaluation of tenders, 4) agreement proposals and due diligence, and 5) negotiation. A timeline for the project is depicted in Figure 1. The project will be described using the five steps as headings. We have chosen to mention every single activity by name but we only describe the activities, which generate contributions to the study.



Figure 1: The timeline for the outsourcing decision project of MeLo.

3.2.1 Request for information and Invitation of tender

This step constituted three main activities: 1) *producing the request for information, distribution and evaluation of the information*, 2) *producing a business case that described an outsourcing case*, and 3) *the development of a tender invitation*. A business case was developed based on an analysis of the effects of outsourcing. From the business case the decisive reason for the EffectIT steering committee to suggest outsourcing was that the committee judged the

probability of decreasing the costs more likely in the outsourcing option. There was then a decision in the executive committee that the project could start the process of outsourcing. The *development of the tender invitation* was done in parallel with the other activities during this step. This activity consisted of collecting facts regarding existing IT resources. In the investigation it was found that differences between applications were high, meaning that every one was unique with unique demand of service level and management. In this stage of the project it was expressed that the hardest thing to do was to judge future demands

of IT in the organisation. At this time it was also found that a lot of employees had negative feelings about outsourcing and did not like the idea. The main objection was that it would increase difficulties with developing services delivered from different units. But also that it could affect client data security negatively. However, it was hard to know if requested service from the outsourcing deal was at the right level. Major work was done to find a model that would describe how the work should be done so that the external provider was encouraged to consolidate resources and at the same time give MeLo high flexibility and a possibility to only pay for the capacity it used.

3.2.2 Tender invitation

The next step was tender invitation. This step consisted of three main activities: 1) *construction of a package with additional information for the invitation of tenders*, 2) *answering of questions from possible providers*, and 3) *planning and preparation for the evaluation of tenders*. There were *questions from possible providers* after one week. During this phase there were 230 questions of different range and complexity. It was not possible for the project members to answer the questions without additional information and help from employees at the different BUs. The BU that was most needed for this was the IT BU, which had been unenthusiastic to the project from the start. However, at this stage this negativity changed and the IT BU people were more positive. The *plan and preparation for tender evaluation* was seen as an important step which consisted of creating an organisation that had the necessary competencies and resources for doing high-quality evaluation. At this time, there was a consultant working on the outsourcing project. Since the consultant was employed by a consultancy working with outsourcing, some stakeholders thought this was not a good arrangement. The reason for this was that there existed a possibility that it could affect the potential providers in their openness and in their bids. Another reason was that the project group wanted to have transparency in the evaluation and did not want to have problems with the tender secrecy.

3.2.3 Evaluation of tenders

There were four main activities in the step: 1) *evaluation of tenders*, 2) *develop a "short-list"*, 3) *the start of preparing the contract*, and 4) *preparation of due diligence*. The *evaluation of tenders* was made in a sequential way starting with individuals reading the tenders and forming opinions of the tenders. The opinions were then analysed and reviewed in teams and questions

were prepared for each potential provider. The next stage was a daylong presentation by each of the potential providers. The final stage of this activity was to make an updated analysis and a judgment with a motivation for why the teams evaluated as they did. The result of the evaluation activity was then put together and analysed in a smaller group. The role of this group was to *develop a short-list*. At this stage in the project there were six potential providers. The evaluation resulted in two providers being dismissed at this stage; both because of their weak economic and financial status. One of the providers was too small. If the provider had been awarded the contract, it would have represented 80 per cent of the provider's turnover. This was seen as too risky. The result of this work was a short-list with two providers presented. The next activity in this step was to *prepare the contract*. There was a decision made that stated that MeLo should present a proposal for contract and that this should guide the negotiation. During the development of the invitation of tender it was realised that there was a need for a clearer description of what the hosting part consisted of. It was also found that there was an unclear description of which services that were demanded. All this resulted in the proposal becoming a whole new document with a new structure and a partly new content. However, there was still a high level of insecurity regarding what MeLo needed and demanded in the future.

3.2.4 Due diligence and agreement proposals

The next step in the project constituted two activities: 1) *to conduct a due diligence with the two potential providers from the short-list*, and 2) *to create the proposal of agreement*. The *conduct of due diligence* meant that the providers were given full access to all necessary information. They got access to a room with computer facilities and all necessary information and documentation covering inventory, agreements, contracts, descriptions over systems and so on. The providers also had the possibility to visit all data centres used and to interview employees. The due diligence resulted in more questions from the providers which the project and the BUs tried to answer. The ambition was to have full openness during this stage. The work with *developing the proposal agreement* continued and it was found that content of the agreement was not such a hard task, except for information regarding hosting of software applications. This part of the proposal was especially hard because it was found that the original description was not good enough. MeLo also wanted to have a model for the fee of the services that reflected what was considered

“normal” in a competitive market. There was an appendix constructed that aimed at solving this, but there still existed some uncertainty if this was the most ideal description and if the proposed model for fee payment was the best solution.

3.2.5 Negotiation

The finally step of the outsourcing project was the negotiation with the providers. The step consisted of three activities: 1) *negotiation preparation*, 2) *final negotiation*, and 3) *the delivery to the provider that were finally chosen*. After the distribution of the proposal of agreement to the two providers, they had the opportunity to *prepare for the final negotiation* by getting more known with the proposal and to ask questions and make comments. They were told to state the price of the required services. They were also expected to say which parts of the proposal they did not accept and what parts they wanted to negotiate. After one month of preparation the EffectIT steering committee decided to give the project permission to start the *final negotiation* with the two providers. The negotiation took place at an external law firm. The negotiation group consisted of two purchasers, an internal lawyer, two external lawyers and one person from the IT BU. The group was led by the purchasing executive of IT. In addition to these people the group was supported by employees that had expert knowledge regarding the area that were under discussion at that moment. The final decision was made a week before the contract was signed and the chosen provider was selected on the basis of the outcome of the negotiation. The *documentation regarding the transfer of the resources* was polished and a project team was set up to handle the transfer.

4. Discussion

In this section findings from theory and practice are discussed, first separately and then together to compare them and present differences and similarities. From the literature review a couple of factors were found that are seen as motivational during the IS outsourcing decision process. The

factors are not divided according to the stages of the MeLo project since it was difficult to separate them into similar steps as in the project. The reason for this is, as described in the introduction, that outsourcing literature to a high extent emphasises the decision process as a one step of the outsourcing process. The list below shows factors found in the literature seen as motivational from a client management perspective.

- Cost savings
- Access to external technological expertise
- Focus on core activities and/or competencies
- Predictable IS costs
- A well-worked contract
- Close communication between involved parties
- A trustworthy relationship between client and provider
- The provider's reputation
- The provider's knowledge about the client's organisation
- The provider's ability to deliver needed capability
- The outsourcing strategy as part of the overall business strategy
- The client's control over core business activities
- Outsourcing used as a competitive tool
- Communication about outsourced IS functions

Although an attempt to divide the factors into steps has not been done it is clear when reading the literature that factor 1, 2 and 3 above motivate management in an early stage of the IS outsourcing decision process. Through the description of the MeLo project the next section aims to identify symptoms of factors seen as motivational during the steps of the IS outsourcing decision process. The purpose is to confirm the factors found through the literature review but also to find new factors motivating management during the outsourcing decision process. In table 1 are motivational factors found in the analysis summarised.

Table 1: Summary of motivational factors viewed by management during the IS outsourcing decision process – an empirical perspective.

	Request for information and invitation of tender	Tender invitation	Evaluation of tenders	Due diligence and agreement proposals	Negotiation
Factors seen as motivational from a client management	Cost savings Future demands of IT	Communication and participation among concerned parties	Provider should be able to meet requirements connected to	Let the provider get familiar with the organisation's	Communication among involved parties Specialists

	Request for information and invitation of tender	Tender invitation	Evaluation of tenders	Due diligence and agreement proposals	Negotiation
perspective	<p>The provider's ability to meet needed capability and flexibility</p> <p>Communication to spread the intentions about the IS outsourcing initiative</p>	<p>Transparency between provider and client</p> <p>Trustworthy relationships</p>	<p>IT development, contract duration and size</p> <p>Future IT development needs at the client's organisation</p>	<p>business processes</p> <p>Shaping a trustworthy long-term partnership with the provider</p> <p>Predictable and "normal" costs in a competitive market</p>	<p>participating during contract negotiation</p> <p>Well-worked contract</p>

That the cost perspective is of importance in an early stage of an outsourcing project is supported both in the literature review as well as by the steering committee for EffectIT. The steering committee judged that the difference between retaining the IT functions in-house or to outsource was that the outsourcing case was more likely to decrease costs. This was the main motive that led to the project being able to start the process of outsourcing. It was at this stage also important to discover future demands of IT, which was seen as one request when choosing a suitable provider. Other requests that were mentioned during this stage were that MeLo wanted a provider that could offer high flexibility and required capability at the right price. During this point of the project it was also found that a lot of the employees were negative about the project. One reason for this was the concern about the provider's ability to carry out the functions as they were in-house. Another reason for this negativity could have been that the project and its intentions had not been communicated among the concerned. One effort to meet these negative feelings was workshops with the units most negative to outsourcing and later in the project let the provider get familiar with the organisation's business processes.

During the activity of *tender invitation* it was seen that the negative feelings among the employees at the IT BU decreased since they were involved in the process and were seen as important. This motivates the need for communication and participation of the ones concerned by the project. At this stage there was also an initiative to terminate cooperation with a hired outsourcing consultant. The main reason for this was a wish to achieve openness during the tender evaluation

which can be seen as one step for reaching a trustworthy relationship. When the project reached the step of *evaluation of tender* demands on the future provider became clearer. Considerations about how the provider would fulfil future development, the provider's ability to remain in business for the duration of the contract and the size of the provider's organisation were seen as important. Again the question about future needs came to play a significant role, which was probably connected to the demand of the provider's ability to meet future IT demands.

Due diligence and agreement proposals concentrated on short-listed providers and the process of letting them becoming familiar with the client's organisation. This step was characterised by openness and trust and was seen as an opportunity to create a long-term partnership. It was also mentioned that there existed a wish to get IT costs predictable and "normal" in a competitive market. The last step, *negotiation*, could be seen as ideal as the negotiation involved all parties concerned in the outsourcing decision process. An example of this was when the group discussed a special area of the organisation the group was supported by employees that had expert knowledge in that certain area. By performing these steps, the result turned out to be a well-worked contract. Table 2 presents motivational factors found both in theory and in the empirical data. The table emanate from table 1. Motivational factors found in the literature review and not mentioned in the case study are represented in bold. They are also placed in that step of the project where they are seen as most likely to occur.

Table 2: Comparison of the motivational factors – a theoretical and empirical perspective.

	Request for information and invitation of tender	Tender invitation	Evaluation of tenders	Due diligence and agreement proposals	Negotiation
Factors seen as motivational from a client management perspective	<p>Cost savings</p> <p>Future demands of IT</p> <p>The provider's ability to meet needed capability and flexibility</p> <p>Communication to spread the intentions about the IS outsourcing initiative</p> <p>Focus on core activities and/or competencies</p>	<p>Communication and participation among concerned parties</p> <p>Transparency between provider and client</p> <p>Trustworthy relationships</p>	<p>Provider should be able to meet requirements connected to IT development, contract duration and size</p> <p>Future IT development needs at the client's organisation</p> <p>The IS outsourcing strategy is part of the overall strategy</p> <p>The provider's reputation</p>	<p>Let the provider get familiar with the organisation's business processes</p> <p>Shaping a trustworthy long-term partnership with the provider</p> <p>Predictable and "normal" costs in a competitive market</p>	<p>Communication among involved parties</p> <p>Specialists participating during contract negotiation</p> <p>Well-worked contract</p> <p>The client has control over core business activities</p>

5. Conclusions and further research

When comparing the motivational factors found in the literature and the ones from the case study, we can see differences and similarities. It is found that the cost perspective is of great interest in an early stage and so also are the future needs of IT. We believe from both theoretical and empirical research that what management means by future IT requirements can be met by getting access to external expertise. This is one way of fulfilling future demands. Communication is seen to be important and insufficient communication could lead to a catastrophic result in an IS outsourcing decision process. Communication is needed to spread information among those involved and to reach consensus about contractual questions. It is also seen that the relationship with the provider becomes more and more important during the decision process. A relationship distinguished by openness and trust motivates a long-term partnership. The provider's stability in the market, its reputation and its ability to meet the demanded capability are also of great interest from a management client perspective. The factor cost savings, seen as most motivational in the beginning of the process, is not longer in focus and it seems that the relationship with the provider and its characteristics are more important the longer the decision process goes. Costs are of course also on the agenda in the end but perhaps

instead of saving money it becomes more important to make costs predictable and normal from a competitive stance. These are the similarities between the theoretical and empirical views.

The differences are that the theory mentions focus on core activities and/or competencies as an important factor during the early stage of the IS outsourcing decision process. This factor is not clearly mentioned in MeLo's outsourcing project. Instead the outsourcing project was an initiative to become competitive in the IT area. The case study further mentions that the size of the provider is important which was not found in the literature. The theory also emphasises that the IS outsourcing strategy should be part of the overall business strategy, which we found to be missing in the case study. The main conclusion from the study is by being aware of the factors that motivate and influence the IS outsourcing decision and by being aware of how these change during the process managers can make better decisions that can result in more successful IS outsourcing. Future research from this study could be to categorise presented factors according to Lacity and Hirschheim's (1994a) categorisation. They suggest that factors influencing the outsourcing decision process could be grouped as motivational, financial, technical, strategic and political. Doing that would probably increase the

knowledge of how different factors influence the decision process as well as how decision-makers act in a decision process of IS outsourcing.

5.1 References

- Bahli, B. and Rivard, S. (2005) Validating measures of information technology outsourcing risk factors. *Omega*, 33, 175-187.
- ComputerSweden (2005) Så väljer du rätt strategi. Wallström, M., Tema den 21 oktober, 16-17.
- ComputerSweden (2006a) Läs på innan outsourcingen. Wallström, M., v. 15, s. 14.
- ComputerSweden (2006b) Renommé viktigast vid outsourcing. Höij, M., v. 39, s. 10.
- Cronk, J. and Sharp, J. (1998) A Framework for IS Outsourcing Strategy in Private and Public Sector Contexts. In Willcocks, L. P. and Lacity, M. C. (Eds.) *Strategic Sourcing of Information Systems - Perspectives and Practices*. Chichester, John Wiley and Sons Ltd.
- De Looft, L. A. (1995) Information systems outsourcing decision making: a framework, organisational theories and case studies. *Journal of Information Technology*, 10, 281-297.
- Dibbern, J., Goles, T., Hirschheim, R. and Jayatilaka, B. (2004) Information Systems Outsourcing: A Survey and Analysis of the Literature. *The DATA BASE for Advances in Information Systems*, 35, 6-102.
- Diromualdo, A. and Gurbaxani, V. (1998) Strategic intent for IT outsourcing. *Sloan Management Review*, 39, 67-80.
- Gonzales, R., Gasco, J. and Llopis, J. (2005) Information systems outsourcing success factors: a review and some results. *Information Management and Computer Security*, 13, 399-418.
- Gupta, U. G. and Gupta, A. (1992) Outsourcing the IS function: is it necessary for your organisation? *Information Systems Management*, 9, 44-50.
- Harland, C., Knight, L., Lamming, R. and Walker, H. (2005) Outsourcing: assessing the risks and benefits for organisations, sectors and nations. *International journal of Operations and Production Management*, 25, 831-850.
- Ketler, K. and Walstrom, J. (1993) The outsourcing decision. *International journal of Information Management*, 13, 449-460.
- Lacity, M. and Hirschheim, R. (1993) *Information Systems outsourcing - Myths, Metaphors and Realities*, Chichester, John Wiley and Sons Ltd.
- Lacity, M. and Hirschheim, R. (1994a) Is Outsourcing Evaluations - Lessons from the Field. *Business Process Re-Engineering*, 54, 343-355.
- Lacity, M. and Hirschheim, R. (1994b) Realising Outsourcing Expectations - Incredible Expectations, Credible Outcomes. *Information Systems Management*, 11, 7-18.
- Lacity, M. and Willcocks, L. (2001) *Global Information Technology Outsourcing - In search for Business Advantage*, Chichester, John Wiley and Sons Ltd.
- Lonsdale, C. (1999) Effectively managing vertical supply relationships: a risk management model for outsourcing. *Supply Chain Management*, 4, 176-183.
- McFarlan, F. W. and Nolan, R. L. (1995) How to manage an IT outsourcing alliance. *Sloan Management Review*, 36, 8-23.
- McIvor, R. (2000) A practical framework for understanding the outsourcing process. *Supply Chain Management*, 5, 22-36.
- Saunders, C., Gebelt, M. and Hu, Q. (1997) Achieving success in information systems outsourcing. *California Management Review*, 39, 63-79.
- Tafti, M. H. A. (2005) Risk factors associated with offshore IT outsourcing. *Industrial Management and Data Systems*, 105, 549-560.
- Yang, C. and Huang, J. B. (2000) A decision model for IS outsourcing. *International journal of Information Management*, 20, 225-239.
- Zhu, Z., Hsu, K. and Lillie, J. (2001) Outsourcing -a strategic move: the process and ingredients for success. *Management Decision*, 39, 373-378.