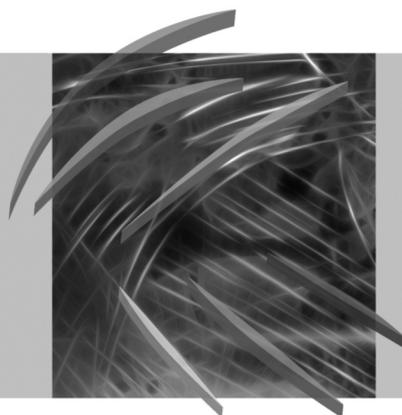


Advanced Information Technologies for Management – AITM 2011 Information Systems in Business



edited by
**Jerzy Korczak, Helena Dudycz,
Mirosław Dyczkowski**



Reviewers: Frederic Andres, Witold Chmielarz, Jacek Cypryjański, Beata Czarnacka-Chrobot,
Bernard F. Kubiak, Wojciech Olejniczak, Celina M. Olszak,
Marcin Sikorski, Ewa Ziemba

Copy-editing: Agnieszka Flasińska

Layout: Barbara Łopusiewicz

Proof-reading: Marcin Orszulak

Typesetting: Adam Dębski

Cover design: Beata Dębska

This publication is available at www.ibuk.pl

Abstracts of published papers are available in the international database The Central European Journal of Social Sciences and Humanities <http://cejsh.icm.edu.pl> and in The Central and Eastern European Online Library www.cceol.com

Information on submitting and reviewing papers is available on the Publishing House's website www.wydawnictwo.ue.wroc.pl

All rights reserved. No part of this book may be reproduced in any form or in any means without the prior written permission of the Publisher

© Copyright Wrocław University of Economics
Wrocław 2011

ISSN 1899-3192

ISBN 978-83-7695-178-2

The original version: printed

Printing: Printing House TOTEM

Contents

Preface	9
Kenneth Brown, Helwig Schmied: Collaboration management – a visual approach to managing people and results.....	11
Joanna Bryndza: Quantitative risk analysis of IT projects	32
Witold Chmielarz: The integration and convergence in the information systems development – theoretical outline	43
Iwona Chomiak-Orsa, Michał Flieger: Computeratization as the improvement of processes in local administration offices	63
Iwona Chomiak-Orsa, Wiesława Gryncewicz, Maja Leszczyńska: Virtualization of the IT system implementation process on the example of Protetic4You	73
Pawel Chrobak: Overview of business process modelling software.....	84
Mirosław Dyczkowski: Computer-aided economic effectiveness management in applying FSM systems	94
Damian Dziembek: Supporting the management of a company informatics infrastructure with applications offered in the form of e-services.....	109
Krzysztof Hauke, Mieczysław L. Owoc: Properties of cloud computing for small and medium sized enterprises.....	123
Payam Homayounfar: Limitations of agile software development method in health care.....	131
Jarosław Jankowski: Compromise approach to effects-oriented web design	143
Arkadiusz Januszewski: Procedure of creating activity-based costing system for higher education institutions in Oros Modeler environment.....	156
Dorota Jelonek, Iwona Chomiak-Orsa: Prerequisites for business environment scanning in virtual organizations.....	168
Krzysztof Kania, Rafał Kozłowski: Web 2.0 tools and leadership in the context of increased interaction complexity.....	177
Jan Królikowski: Management information systems for business logistics. Guidelines for SME companies.....	191
Adam Nowicki, Leszek Ziara: Application of cloud computing solutions in enterprises. Review of selected foreign practical applications.....	203
Michał Polasik, Janusz Kunkowski: Application of contactless technology on the payment cards market.....	214
Michał Polasik, Karolina Przenajkowska, Ewa Starogarska, Krzysztof Maciejewski: Usage of mobile payments in Point-Of-Sale transactions... ..	227
Małgorzata Sobińska: Chosen aspects of information management in IT outsourcing	240

Tomasz Turek: Selected areas of Web 2.0 technology application in partnership enterprises	248
Daniel Wilusz, Jarogniew Rykowski: The architecture of privacy preserving, distributed electronic health records system	259
Radosław Wójtowicz: The chosen aspects of real-time collaborative editing of electronic documents.....	270
Hubert Zarzycki: Enterprise Resource Planning systems selection, application, and implementation on the example of Simple.ERP software package	281

Streszczenia

Kenneth Brown, Helwig Schmied: Zarządzanie współpracą – wizualne podejście do zarządzania zespołem projektowym i realizacją zadań	31
Joanna Bryndza: Ilościowa ocena ryzyka projektu informatycznego	42
Witold Chmielarz: Integracja i konwergencja w rozwoju systemów informatycznych – szkic teoretyczny.....	62
Iwona Chomiak-Orsa, Michał Flieger: Informatyzacja kierunkiem doskonalenia procesów w gminie	72
Iwona Chomiak-Orsa, Wiesława Gryncewicz, Maja Leszczyńska: Wirtualizacja procesu wdrożenia na przykładzie oprogramowania Protetic4You	83
Paweł Chrobak: Przegląd oprogramowania do modelowania procesów biznesowych w standardzie BPMN.....	93
Mirosław Dyczkowski: Komputerowe wspomaganie zarządzania efektywnością ekonomiczną zastosowań systemów FSM.....	108
Damian Dziembek: Wspomaganie zarządzania infrastrukturą informatyczną przedsiębiorstwa aplikacjami oferowanymi w formie e-usług.....	122
Krzysztof Hauke, Mieczysław L. Owoc: Własności <i>cloud computing</i> istotne dla małych i średnich przedsiębiorstw.....	130
Payam Homayounfar: Ograniczenia metod <i>agile</i> tworzenia oprogramowania w sektorze zdrowia.....	142
Jarosław Jankowski: Projektowanie kompromisowe witryn internetowych zorientowanych na efekty	155
Arkadiusz Januszewski: Procedura tworzenia systemu rachunku kosztów działań dla uczelni wyższej w środowisku Oros Modeler	167
Dorota Jelonek, Iwona Chomiak-Orsa: Przesłanki monitorowania otoczenia dla organizacji wirtualnej.....	176
Krzysztof Kania, Rafał Kozłowski: Narzędzia Web 2.0 i przywództwo w kontekście problematyki złożoności.....	190
Jan Królikowski: Oprogramowanie wspomagające zarządzanie w branży LST. Praktyka przedsiębiorstw sektora MŚP	202

Adam Nowicki, Leszek Ziara: Zastosowanie rozwiązań <i>cloud computing</i> w przedsiębiorstwach. Przegląd wybranych zagranicznych zastosowań praktycznych.....	213
Michał Polasik, Janusz Kunkowski: Zastosowanie technologii zbliżeniowej na rynku kart płatniczych.....	226
Michał Polasik, Karolina Przenajkowska, Ewa Starogarska, Krzysztof Maciejewski: Wykorzystanie płatności mobilnych w transakcjach w punktach sprzedaży	239
Małgorzata Sobińska: Wybrane aspekty zarządzania informacją w outsourcingu IT.....	247
Tomasz Turek: Wybrane obszary zastosowania technologii Web 2.0 w przedsiębiorstwach partnerskich	258
Daniel Wilusz, Jarogniew Rykowski: Architektura chroniącego prywatność, rozproszonego systemu informacji o pacjencie.....	269
Radosław Wójtowicz: Wybrane aspekty grupowego redagowania dokumentów elektronicznych w czasie rzeczywistym	280
Zarzycki Hubert: Wybór, zastosowanie i wdrażanie systemów ERP na przykładzie pakietu oprogramowania Simple.ERP	291

Małgorzata Sobińska

Wrocław University of Economics, Wrocław, Poland
e-mail: malgorzata.sobinska@ue.wroc.pl

CHOSEN ASPECTS OF INFORMATION MANAGEMENT IN IT OUTSOURCING

Abstract: Outsourcing, including the IT outsourcing, is one of the most frequently chosen business tools in the contemporary management practice. The aim of this article is discussing chosen aspects of information management in outsourcing projects, which, according to the author, has a huge impact on the shape and course of cooperation with the external IT services provider. Special attention will be paid to analysing information needs, managing documentation and the rules of communication in outsourcing projects. The choice of the topic is related to the author's conviction that the discussed management aspects are often neglected by organizations choosing to cooperate with the external IT services providers.

Keywords: IT outsourcing, information management, information needs, SLA agreements, communication.

1. Introduction

The significance of the IT outsourcing is still increasing. While organizations are discovering profits, they can gain from the cooperation with external providers, they are gradually outsourcing even advanced IT services. Work outsourcing, which requires advanced knowledge, is becoming more and more popular; it includes e.g. software development or research and development activities. It results from, on the one hand, opportunities provided by the dynamically developing outsourcing services market, and on the other hand – from the lack of possibility to satisfy all IT-related needs if relying only in the internal resources. Unfortunately, the outsourcing decisions are not always accurate, nor are all agreements successful.

Sometimes the outsourcing cooperation may lead to serious problems which most often are a consequence of mistakes made in the phase of the agreement preparation, and then are due to the negligence in administrating the contract by the customer organization and poor communication system. Outsourcing is frequently perceived only as a cost reduction tool (not requiring special attention), not the source of innovations, opportunity to increase operational efficiency or means of acquiring talents and competencies for the development of organizational knowledge. The lack of

sufficient knowledge about potential profits related to the cooperation with external IT services providers makes organization limit their participation in managing the outsourcing relation to the absolute minimum. Because of that the profits from the agreement are also smaller.

In this article such outsourcing projects management aspects will be discussed, which are crucial for the IT outsourcing to be successful and which may result in seizing optimum opportunities resulting from a long-term relation with specialized external companies.

2. Information needs in the process of planning IT outsourcing and ways of satisfying them

Gathering knowledge about the IT outsourcing market is especially significant in the situation when an organization does not have knowledge about the IT services market and experience in cooperating with providers of services it intends to outsource. One of the motives for collecting data about the IT services outsourcing market is the fact that it is constantly changing (strategies and capabilities of providers are different) and therefore it requires constant monitoring.

Early investigation into potential suppliers is often overlooked, especially if organizations view of all suppliers as equal envision that a potential deal will be done foremost on price. Although vendors share similar characteristics, predominately centred on the profit reason, they seldom have the same approach to their customers, contracts and relationships. Even if IT outsourcing contracts tend to be shorter (three years or less), they often have renewal terms that make the relationship much longer and the potential character of a relationship is worth investigating at an early stage.

Global organizations usually do not choose the same IT services providers as their international counterparts because of local optimum value for money assessments varying with the local capabilities and prices of the providers.

The kind of general information that can be used at the formative stage of the organization's/client's outsourcing strategies is often [Cullen, Willcocks 2006, pp. 20–21]:

- Market share in industry segments and services segments – Is there local competence in the organization's industry and architecture?
- Number of customers and percent of revenue major customers represent – Is there an over-reliance on a single customer?
- Financial viability – Is the provider's local business established and sustainable?
- Data-centres, solution centres, centres of excellence, etc. – Is there appropriate infrastructure in the locations that may service the organization's geographies?

- Use of subcontractor organizations – How do the providers use one another to fill capability shortfalls?
- Composition of top management – Who are they and what are their backgrounds?
- Strategies – Where is their short- and long-term focus and what are their target customers, industry and services?
- Timing – Are there other organizations seeking to have the provider respond to a competitive (or non-competitive) process during the time in which the organization is considering going to market? Might there be major changes to the provider in the foreseeable future? What impact may this have?
- If they have made low price bids in the past, find out in detail how they can do so and still make a decent profit.

This kind of information can be gathered either informally via discussions or more formally via a request for information process, whereby vendors are invited to provide required information in a formal response. In S. Cullen and L. Willcocks' opinion the most common approaches are to use the market intelligence of the organization's IT personnel, if they have such knowledge, or to use consultants with sufficient commercial experience in ITO (IT outsourcing) [Cullen, Willcocks 2006, p. 22].

Apart from analysing information about the outsourcing services market, an organization may also attempt to investigate its competitors in terms of implemented or planned IT outsourcing strategies. Of course, in the conditions of fierce competition, such knowledge may be well hidden and an organization may be forced to seek information among companies from similar industry, yet not being its competitors.

Another option is making use of non-classified/publicly available information, which, however, is usually not worth much due to their availability.

Gathering data from many sources minimises the risk of making a mistake in the initial phase of outsourcing. By analysing scrupulously experience of other companies, which implemented outsourcing, one may acquire knowledge about the following:

- where there are competitive markets;
- the quality and other characteristics of the providers;
- the kind of services insourced and outsourced;
- the type of services under consideration for further outsourcing or back-sourcing;
- the construction of the outsourcing contract;
- the retained organization and contract management to be put in place;
- the motivation, results and gained experience of the methods taken.

Actions, which should be undertaken in order to fulfil the aforementioned information needs concerning outsourcing projects, may seem too difficult and time-consuming. However, it is worth remembering that wrong decisions in the field of the IT outsourcing, resulting from indolent actions and lack of knowledge of organization managers (customers), may have a catastrophic impact on the organizations' func-

tioning. The consequences of such mistakes include: signing a contract for services an organization does not need, unplanned increase of outsourcing costs, difficulties resulting from impaired communication, lack of possibility of using appropriate motivational stimuli in response to action of unreliable service providers.

3. Documentation management in IT outsourcing enterprises

One of the main functions of contract administration is to have a systematic repository and log of records and decisions. Maintaining diligent administration provides an efficient reference system and audit trail should any aspect of the arrangement be called into question by either party or external body.

Examples of the items requiring control files include [Cullen, Willcocks 2006, p. 191]:

- precursor documents (request for tenders, bids, etc.);
- agendas and minutes of meetings;
- correspondence and discussions between the parties;
- approvals and signoffs;
- deliverable acceptance forms (if used);
- governing documents and variations;
- issue logs;
- reports – performance, progress, audit, etc.;
- all financial data;
- supplier invoices and quotes;
- customer satisfaction surveys;
- audit reports and findings.

One of the ITO manager duties should be to ensure that results of re-negotiations, the outcomes of resolved issues, and current practices are reflected in the governing documents.

Performance reporting is one of the contract administration procedures which ensure that everyone understands who does what, when and how. Requirements for performance reports and management information should be defined in the agreement. There may be required information about all performance measures or only about “exceptions”, where performance differs from agreed standard. The reports serve as an analytical tool, showing the level of advance, providing key operational indicators and performance measures. They also define the spheres requiring improvement. There are many kinds of report prepared throughout the entire ITO agreement binding period. Usually they are defined in the service level agreements (SLA).

Service level agreements are one of the most important components of outsourcing contracts and are the powerful management and communications tool for both client organization and supplier alike. Derived from the statement of service requirements and including performance measures and reporting requirements, the service

level agreements are generally included as schedules to the outsourcing contract [Sparrow 2003, p. 154]. The reasons for preparing service level agreements include for example:

- They help to display the performance achieved by the outsourced services.
- Services levels are guaranteed as far as possible.
- They give support to the measurement and assessment of the outsourced services.
- By engaging users in the compilation and review of the service level agreement, organization can ensure that the outsourced services meet user demands.
- Fulfilment with external standards, such as the ISO 9001 quality management standards, can be specified.

The outsourcing contract and SLAs are the organization's formal "product" specification documents and must be detailed at some point. Leaving it until later means that the provider has a greater opportunity to drive the process – which may not be in the organization's best interest.

Service level agreements should be formally reviewed on a regular basis (such as annually), to ensure that they still meet business needs and the outsourcing objectives. Service level reports should be prepared as soon as the contract begins. Performance should be reported in contrast to service level agreement. Reports summarizing service performance need to be produced by the contract management team to participants in the performance reviews a few days before their meetings, so that any questions and disagreements about the results reported can be resolved ahead of the meeting. Such reports should include details of performance against all key targets, together with information about any trends and actions being taken to improve service quality [Sparrow 2003, p. 150]. The reporting cycle should be short enough in order to identify quickly the subjects requiring improvement. On the other hand, they must be sufficiently long so as not to flood managers with piles of reports and analyses too often.

4. The role of communication in the customer-IT services provider relations

Communication in the customer-IT services provider relation is another significant aspect in terms of information management in outsourcing projects. Managing cooperation of a few entities (functioning often on different continents, in different cultural and time zones) is a huge challenge, whose crucial element is an orderly communication and efficient mechanism of decision making.

Sole documentation administration and review of reports may prove insufficient in practice. Practice shows that direct contact has a key meaning for the success of outsourcing communication (e.g. Indian IT companies understood it and started creating so called "customer proximity centres", which are to facilitate project manage-

ment oriented at the main customers [Klincewicz 2008, p. 260]). It is very important for both sides of the contract to act in agreement and not solve problems separately.

The timetable of meetings for individuals in charge of the contract, both on the customer's and the provider's side, should be agreed on in the phase of establishing cooperation. It is the best moment for agreeing ways of communicating and mechanisms of resolving disputes, which may occur in the course of the project. Therefore, there are many tasks which should be carried out. The most important ones are (on the basis of [Cullen, Willcocks 2006, p. 153]):

- relation management:
 - organizing introductory meetings of key employees,
 - conducting partnership workshops,
 - introducing communication protocols;
- adaptation:
 - organizing temporary offices for temporary teams (from outsourcing),
 - organizing permanent workstations for provider's personnel, which will be located in the customer's premises;
- access:
 - organizing users' profiles and in this way providing safety to all employees from both sides, who would require access to IT systems of the second party,
 - organizing physical access for both sides, each part;
- organization:
 - creating a new organizational model,
 - recruiting new employees,
 - conducting trainings.

New relations – customer-provider relations will need to be quickly formed, and people accustomed to a certain way of operating will need to operate in completely different manner.

The choice of information and knowledge management strategy, and therefore the choice of communication channels and means in outsourcing relations depend on many factors. Outsourcing companies such as the Indian Infosys focus on elaborate documentation of actions and recording experience gained in subsequent projects. Such an attitude to knowledge management is called codification and it may, because of time-consuming preparation of documents, limit the efficiency of service companies. An opposite strategy is knowledge personalisation – promoting communication and cooperation, stimulating the flow of knowledge and information independent of formal barriers [Klincewicz 2008, p. 274]. According to the author, organizations should make use of both strategies at once, in order to ensure an easy access to required information for both sides of the contract, and on the other hand not to overwhelm employees with excessive formality, but stimulate their creativity and involvement in actions related to the achievement of project/outsourcing contract objectives.

5. Conclusions

Summing up, the following conclusions may be drawn:

The IT outsourcing refers more and more often to the key competencies of an organization, such as application development or research and development works.

A reliable strategic assessment (preceded by gathering information from different sources) and clear formulation of outsourcing goals are very crucial for further cooperation goals.

Organizations which want to optimize business profits and minimize risk in cooperation with external providers should involve their whole personnel in every phase of the outsourcing process (service providers cannot bear the entire responsibility).

Establishing contract administration rules is a necessity if an organization wants to monitor the work of service providers effectively and quickly respond to the emerging problems.

The SLA agreements are, apart from a contract, one of the basic tools supporting management and communication in the customer-IT services provider relations.

Communication, especially direct one, plays a very important role in all phases of an outsourcing project. Establishing advantageous conditions for customer-provider communication may additionally broaden the knowledge of the organization about the cooperation, as well as increase the service competence of the IT personnel by means of different kinds of contacts with the employees of the provider's company (on formal and informal grounds).

The author is aware of the fact that the elaborations presented in the article do not exhaust the topic and hopes that her future research in this field will result in further scientific publications.

References

- Cullen S., Willcocks L. (2006), *Intelligent IT Outsourcing: Eight Building Blocks to Success*, Butterworth-Heinemann, London.
- Klincewicz K. (2008), *Indyjski model offshoringu. Wnioski dla Polski*, [in:] A. Szymaniak (Ed.), *Globalizacja usług. Outsourcing, offshoring i shared services center*, Wydawnictwa Akademickie i Profesjonalne, Warszawa.
- Sparrow E. (2003), *Successful IT Outsourcing*, Springer, London.

WYBRANE ASPEKTY ZARZĄDZANIA INFORMACJĄ W OUTSOURCINGU IT

Streszczenie: Outsourcing, w tym outsourcing IT, to jedno z najczęściej wybieranych narzędzi biznesowych we współczesnej praktyce zarządzania. Celem niniejszego artykułu będzie omówienie wybranych aspektów zarządzania informacją w projektach outsourcingowych, które, zdaniem autorki, w istotny sposób wpływają na kształt i przebieg współpracy z zewnętrznym dostawcą usług IT. Szczególna uwaga zostanie poświęcona analizie potrzeb informacyjnych, zarządzaniu dokumentami oraz zasadom komunikacji w projektach outsourcingowych. Wybór tematu wiąże się z przekonaniem autorki, że poruszane w artykule aspekty zarządzania są zbyt często zaniedbywane przez organizacje decydujące się na współpracę z zewnętrznymi dostawcami usług IT.