

E-Skills of Delivery Managers

A case study of outsourced IS development in Ukraine

<Short paper, first phase findings, preliminary research>

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Abstract:

Geographically distributed development of information systems calls for a set of specific skills among middle managers, facilitating outsourced services. With a theoretical point of departure and a resource-based view on strategy, this paper explores the e-skills of a group of so-called 'Delivery Managers' in this role. The paper contributes with a research model to understand the specific skills needed and points out communicative e-skills as being quite important. The paper concludes with suggestions for how to proceed the research.

Keywords: e-skills, co-sourcing, delivery management

1 Introduction

Global competition, need for flexibility and resources with new types of expertise, as well as reduction of costs, drive software developing companies to engage in geographically distributed software projects (Lacity et al. 2009; Persson et al. 2009).

To cater the needs for managing geographically distributed projects, a business model with an intermediary company has emerged to facilitate the co-operation between a client's local (in-house) and external (outsourced) resources.

To further understand the skills needed to manage in this context, we would like to take part in the discourse on e-skills initiated by the European Commission (Tapscott, 2012).

We adhere to the definition of e-skills: *"E-leadership skills are seen as those which enable people with very strong ICT skills to lead qualified staff from ICT and other disciplines towards identifying and designing business models and exploiting key innovation opportunities. Their success is defined as making best use of developments in ICT and delivering value to their organizations"* ("E-Leadership: The new frontier of management," 2015).

This paper focusses on the e-skills needed by Delivery Managers, a specific category of middle managers in outsourced software system development. The primary task of a Delivery Manager is to facilitate the work by the staff in the outsourced processes and assure proper delivery of services to the clients. Secondly, important especially in the present context, the Delivery Manager is to contribute to the business goals of the service provider as well as the company buying services.

The paper takes a theoretical point of departure from the resource-based view on strategy and proceeds as follows: The next section reviews the literature regarding the resource-based view on strategy and

qualifications in outsourcing of IT development services as well as elements of the call from the commission for insight into e-skills to establish a theoretical base for the following analysis. This is followed by a section describing the research approach and the activities undertaken to get insight into the setting of the case. We then present and discuss the findings of the actual need for e-skills identified with the off-set in the empirically derived structure of skills dimension from the literature review. The paper concludes with implications for research and practice.

2 Theory

We take it for granted that the Delivery Manager is to contribute to the overall goal of the company (i.e. profit) and as such the generation of value. To understand the underlying dynamics, a resource-based view on strategy is applied.

2.1 Resource-Based View

The resource-based theory (RBT) has been widely used within IS research (Seddon, 2014), and Melville et al.'s (2004) seminal paper presents an integrative model for IT business value based on RBT. The model is divided into several layers, where the present paper focuses on (1) *IT business value generation process* consisting of IT resources and complementary organisational resources making up a business process which leads to business process performance, and (2) *Focal firm* consisting of many business processes leading to overall organisational performance. Basically these two exist in (3) *Competitive environment* with the organisational field entailing key suppliers, resource and product consumers, regulatory agencies and other organisations that produce similar services or products (DiMaggio & Powell, 1983, pp.: 148-149), and finally (4) the *macro environment* with country characteristics generally shaping any business (Melville et al., 2004).

The IT Business Value Generation Process (Melville et al., 2004; fig 1) is based on :

- IT Resources: Technological & Human
- Complementary Organisational Resources

Both of these contribute to the execution of *Business Processes* which further on contributes to better *Business Process Performance*. All in all it is the claim that this influences the *Organisational Performance*.

2.2 Qualifications in Outsourcing

Lacity identified three main components on which the success of IT Outsourcing (ITO) is dependent (Lacity, Khan, Yan, & Willcocks, 2010; Table 4):

1. The ITO Decision,
2. Contractual Governance
3. Relational Governance

The first of these, the ITO Decision, is historic and hence not relevant in the present context. The two next can further be decomposed into a set of 'client and supplier capabilities':

1. IS technical/methodological capability
2. IT human resource management capability
3. Supplier management capability
4. Contract negotiation capability
5. Domain capability
6. IS change management capability
7. Transition management capability
8. Client management capability

2.3 Structure

The terminology and structure derived above informed the development of the research model presented in next section.

3 Research Approach

This paper is one out of a stream of research done in out/co-sourced software development based on the Ukrainian *Conscensia* set-up. Other lenses applied are risks (Persson & Schlichter, 2015), trust (Schlichter & Persson, 2014) and software ecology. The present paper reports on eSkills based on general observation from the case and specific interviews with the *Conscensia* VP of Global Delivery. During the next phase of the research, these findings will be expanded and challenged by including interviews with delivery managers and other staff.

3.1 Approach

This section presents the case and its related context followed by an explanation of how we collected and analyzed data. The case study approach was in the terms of Cavaye's (1996) single case with interpretive use of qualitative data for discovery. An interpretive approach is particularly useful when addressing problems with a dominant social or cultural dimension, such as those frequently encountered when studying work practices in a globally distributed team setting (Clear & MacDonell, 2011). This interpretive research approach allowed us to investigate the management of offshoring in its organizational and cross-cultural context as being socially constructed and thus open to several interpretations by organizational actors, but also to us as researchers (Klein & Myers, 1999; Walsham, 1995, 2006). This research approach is prudent with the study's social constructionist view of eSkills (Boholm & Corvellec, 2010). Because, to understand eSkills in practice, researchers should delve into the logic of practice, analyze how people (managers) organize their experience, and follow how they navigate in their everyday lives.

3.2 Data Collection

The data collection included document studies and individual semi-structured interviews with team members, middle managers (Delivery and local Office Managers) and top management from both *Solid-Client* and *Conscensia*. We initiated the case study with informal meetings with managers in *Solid-Client* (in Denmark) and *Conscensia* (in Ukraine) in the spring 2012. To get an overview of the overall organization, we did exploratory interviews with managers and developers in the early summer 2012 in Lviv. We developed an interview guide based on this explorative phase focused on their offshoring challenges and mitigation strategies (all guides are available in Appendix A). This guide supported our semi-structured interviews in Lviv and Aarhus in the autumn 2012 and the spring 2013. The pilot interviews conducted with

managers of *Conscensia* and software engineers brought about several changes to the interview guide such as framing and focusing questions for management software professionals. These interviews furthermore provided an understanding of the environment and challenges faced by the organizations. In addition, these interviews helped identify additional candidates for interviewing. In general, we are following Meyer's and Newman's (2007) recommendations for qualitative interviewing by situating us as actors, minimizing social dissonance, representing various voices, inclusive interpretation, mirroring questions and answers, flexibility, and confidentiality of disclosures.

We interviewed four members of each team with different roles and nationalities as well as managers at different levels from *Conscensia* and *Solid-Client*. After interviewing the Danish side of the case, we interviewed the Ukrainian side once more to qualify observations and challenge provisional findings. Each interview lasted from 40 to 60 minutes, was recorded, and fully transcribed verbatim. To ensure correct information regarding e.g. use of technology and to maintain good relations with the interviewees, the transcriptions were sent for verification. In all, we have done +25 interviews combined with informal meetings. In addition to the interviews, we took pictures of the premises (offices and facilities for scrum-meetings) and collected supporting documents such as organograms, sketches of workplaces, presentations, and product descriptions.

To assure that the focus was kept on alternative interpretations and questioning of findings, two researchers made the interviews individually to take advantage of their different background and experience. Both researchers are Danish computer scientists and professors in Information Systems (A, specialized in systems development and B, specialized in management and implementation). In addition, researcher B is honorary professor at a leading Ukrainian Business School and has through many years of close co-operation established a reasonable insight into the Ukrainian context.

3.3 Data analysis

We analyzed the interview transcripts and documents to uncover the involved participants' attention to middle managers' skills related to offshoring. We searched for deviations from the established theory by approaching the analysis as a critical dialogue between the theoretical frameworks presented in the background section and our empirical work (Alvesson & Kärreman, 2007).

To identify incidents, mitigation, or perceptions related to offshoring, we searched and coded the transcripts in NVivo (Bazeley, 2007). We coded statements pertaining to eSkills, grouped them to reveal patterns or other findings. This coding did not emphasize explicit statements of something being an eSkill, but rather what the different stakeholders considered to be necessary for the success of managerial practice. We compared these value positions with the generic skills of out-sourcing as derived from (Lacity et al., 2010) and structured as presented in fig 1.

For further triangulation, managers in *Solid-Client* and *Conscensia* reviewed the analyses, which lead to a few corrections providing alternative interpretations and questioning of findings (Klein & Myers, 1999). In the following, we present our findings related to the five skills relations (table 1) for the Delivery Management in software development offshoring.

3.4 Research Model

Based on the literature review of theories presented in section 2, the research model in Figure 1 was developed.

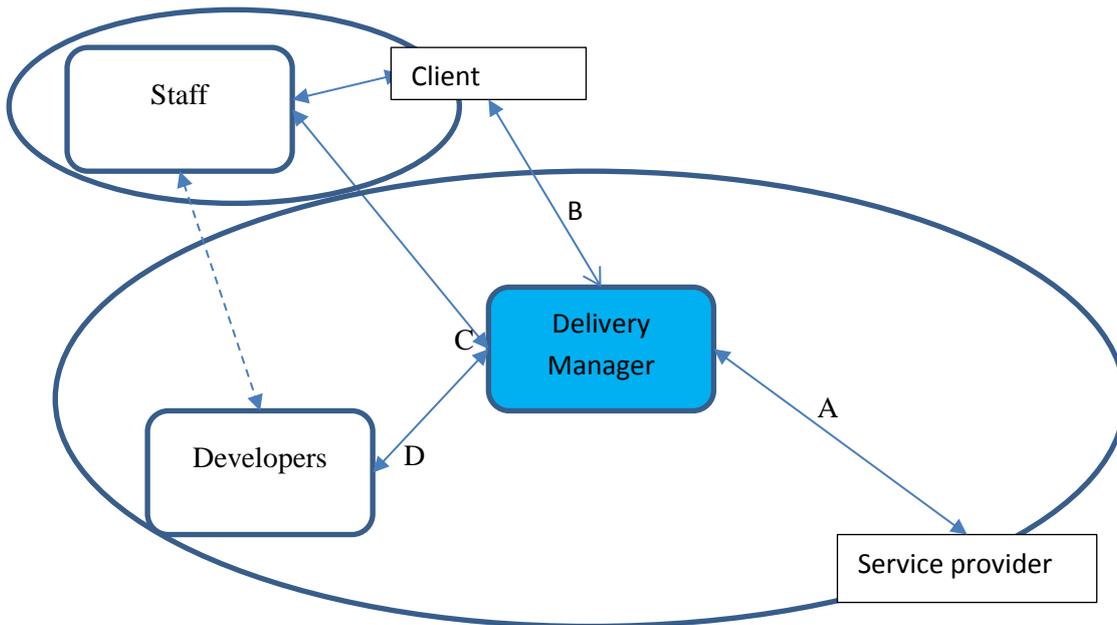


Figure 1: Research Model: The context of Delivery Managers

The main objective of the research model is to put the e-skills of the Delivery Manager into context. The model shows the two main institutional bodies in which the Delivery Manager acts: The Service Provider and The Client; and also indicates that the Delivery Manager is to process certain skills to span these two bodies.

According to the model the Delivery Manager should:

- A. Contribute to the goals and learning of the Service Provider.
- B. Contribute to the goals and learning of the Client.
- C. Mediate the interaction between the Clients home-office staff and the clients pool of Developers placed at the Service Provider's premises.
- D. Coach the clients pool of Developers.

The aim of the present research is to identify and discuss the eSkills needed by the Delivery Manager to support these interactions.

4 Case and Analysis

4.1 The case

Conscensia is a Danish company established in 2006 providing facilitation of software development offshoring to Ukraine (physically located in the cities of Lviv and Kiev).

At the location in Lviv, *Conscensia* is organized with two delivery managers (A and B) with reference to the Vice President (VP) of Global Delivery and a Ukraine-based Chief Operating Officer (COO) with reference to the CEO. The CEO and the VP are situated in Denmark. A local IT department manager, a Recruitment Manager, and a Career Advisor support the COO. In all, more than 130 developers are situated in the Lviv premises.

To provide an example of an actual supplier-client relationship to be facilitated by the Delivery Managers in *Conscensia* (and to form the basis for observations) the case of '*Solid-Client*' is presented below (*Solid-Client* is not the real name for reasons of anonymity).

Solid-Client has its headquarter in a European Country outside of Ukraine. It has in all +400 employees and provides advanced software solutions to a variety of customers spread around the globe. The group of software development teams (7-15 persons) is each divided between the HQ and *Conscensia's* premises in Lviv. The two *Solid-Client* teams, supported by Delivery Manager A, develop mission critical software, primarily based on .Net and Java. Both teams apply Scrum in their development process and they sit in their own open offices at each location. The teams use Intelli/IDEA as Integrated Development Environment, Rational Team Concert (RTC) to manage source code, and Concurrent Version System (CVS) to manage documentation. Lync facilitates the majority of communication, such as live calls and shared screens. Daily scrum meetings are held for 15 minutes in the morning in dedicated rooms, using large screens and laptops showing each other's environments. The teams are organized with a product manager and headed by a project manager, and there are one or more scrum-masters for each sub-team.

4.2 Findings

In this section the roles/task of all actors are presented, and the eSkills (qualifications) of the Delivery Managers are derived.

Table 1: Actors and roles

Actor	Role	Comment
Delivery Manager	Each Delivery Manager is in charge of their own client portfolio .. being a trustworthy mediator managing the relationship through the full client life cycle [1].	Refers to the VP of Global Delivery
Staff	At clients' home-office. Define tasks for developers and coordinate with their own organization/needs.	
Developers	Located at the premises of the Service Provider. The persons actually do development of software.	
Client	The company buys services from the service-provider. Employs the Developers.	<i>Solid-Client</i> in the present case
Service Provider	The company sells its facility services to the clients. Employs the Delivery Manager and hosts the Developers.	<i>Conscensia</i> in the present case.

Table 2 shows the first results of applying the analytical framework on the first set of interviews.

Table 2 eSkills of Delivery Managers

Relation to	eSkills, ability to /have...	Comment
Client	Analyzes the client in relation to a sourcing setup, and plans accordingly. Provides the best of breed sourcing experience. Provides experience from commercial software industry. Provides experience with multiple stakeholder management. Provides excellent problem solving, judgment and decision making skills. Contributes to the learning process.	
Service Provider	Identifies improvements on cooperation with clients. Reports on predefined KPI's. Supports a high level of knowledge sharing. Is customer oriented. Is result oriented (new and up-selling). Contributes to the business / profit. Contributes to the learning process.	Evaluated qualitative
Staff	Handle (experience) distributed teams. Gain experience from commercial software industry.	
Developers	Support the integration of developers into the clients' organization/staff. Gain experience with difference SDLC processes. Gain good coaching skills.	Professional, technical skills Do not have any formal power
General/Personal	Development background (Java or .NET). Certified PMI or Scrum(Master) Excellent communication skills (oral/written). Conflict management. Multitasking.	Also technical Formal education is an underlying competence

During the next phase of the research project the table above will be extended with observations from the remaining interviews and verified with references from the interviews.

5 Concluding Remarks

The objectives of this paper were to frame the research, set up a research model and perform the first explorative analysis.

Figure 1 shows the Research Model with the four 'dimensions' and table 2 extends this model to actual skills – called eSkills for Delivery Managers in out/co-sourced domains.

Of special interest are the many indications that 'communicative' skills are very important, and during the next phase of the research we will further investigate how 'communicative' skills can be conceptualised in the present context.

Limitations and further research

We acknowledge the need for a more in-depth analysis and hence a description of the presented constructs and their relationships. During the next phase of our research we will refine the model given in figure 1 by harvesting from the pool of interviews. We will also look into the contrasting of views from the respondents as well as backup claims with quotes from the interviews. Finally, it is our intention to explain how coding was done and provide a detailed description of the analytic process.

We would appreciate feedback on the above mentioned issues and especially to discuss the basic assumption of the research model and how this can be related to the wider discourse on eSkills.

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Appendix

List of interviewees (to be added in the next version of the paper)

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