

# Vendor Switching: Factors that Matter When Engineers Onboard Their Own Replacement

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**Abstract:** Offshore outsourcing is a common way of working, but sourcing collaborations do not always last, and sometimes vendors are switched. Vendor switching results in a complex form of relationship, in which the competing outgoing and incoming vendors are expected to cooperate. The success of such transitions highly depends on successful knowledge transfer and thus the willingness of the outgoing vendor to train their own replacement. While switching decisions have gained attention, the role of the vendor relationship is still relatively unexplored. In this paper, we report findings from a multi-case study of vendor switching in three projects based on 22 interviews with 27 interviewees. We developed a theoretical model explaining the complex interplay between the factors affecting such transitions. Our results confirm that opportunistic behavior of outgoing vendors is a probable threat. We found that the vendor relationship moderates the link between initial negative emotions and the opportunistic behavior of the outgoing vendor. Other important factors affecting the success of the transition include the relationship with the client, outgoing vendor's management engagement, and the cultural and organizational fit between vendors. We conclude with recommendations for companies switching vendors.

**Keywords:** Global software engineering, Offshore outsourcing, Vendor switching, Opportunism, Knowledge transfer, Empirical.

## 1. Introduction

Offshore outsourcing in software companies has become a common practice, and a plethora of experiences of different sorts and kinds of relationships have been reported in the research literature on global software engineering, offshoring, and outsourcing. Despite the numerous challenges and failures faced by companies involved in offshore outsourcing, it seems that after initiating sourcing once, companies are likely to continue source and resource [1]–[3]. Notably, many companies find themselves too dependent on allies and even if sourcing is no longer desirable, back-sourcing the work is not an option since companies do not maintain the capability to fulfill the sourced function internally [1], [4]. This is why establishing successful sourcing collaborations is crucial. In this regard, experts suggest that offshoring is trending from initial “win-lose” power relationships to “win-win” partnerships [5], [6]. The process of establishing a successful sourcing collaboration often becomes a journey of trial and error, in which the client company seeks the right partner out of the available suppliers, often by parting from unfitted candidates during the process.

Resourcing, also known as vendor switching, the focus of this paper, is a transition from one vendor to another, which can be initiated for different reasons. Many large companies in the initial phase of offshoring experiment with multiple vendors and as a result of gained experience later choose to consolidate the development in the hands of the preferable partner [4]. Consolidation also helps to avoid the delays and inefficiencies observed in distributed multisite development [7] which are sometimes caused by the lack of cooperation among the vendors [8]. Smaller companies are more likely to initiate a single-vendor collaboration hoping for it to succeed and choose to terminate the existing contracts only because of dissatisfaction with the current vendor [2], [9]. The transition from a dissatisfying relationship for companies of any size is always a delicate situation, which obviously raises a lot of concerns regarding the possible success of a vendor switching transition. However, while back-sourcing has gained some attention, the topic of resourcing or switching vendors is still relatively unexplored [3]. Moreover, while research exists on the subsequent sourcing relationships [2], [4], [10], what happens during the transition from one vendor to another has been barely researched.

Switching vendors is said to be a cumbersome exercise [11] and result in a complex form of relationship, in which the outgoing and incoming vendors cooperate and compete simultaneously [3], [12]. Switching vendors in a sourcing context often involves transferring development activities from where the work was previously performed (*sending site* or the *outgoing vendor*) to a new vendor

(*receiving site* or the *incoming vendor*). In this paper, we aim to explore the contexts of offshore resourcing situations and the factors that influence the transition of software development activities and responsibilities. Our research is thus driven by the following research question:

**RQ:** What impacts the success of the knowledge transfer in offshore vendor switching situations?

The rest of the paper is organized as follows. Section II outlines the research work related to outsourcing, post-outsourcing decisions, and vendor switching, as well as the nature of the onboarding activities. In Section III, we describe our research methodology. Section IV contains the results, followed by a discussion in Section V. Finally, Section VI concludes the paper with a summary of the findings, recommendations for companies switching vendors, and future research directions.

## 2. Related Research

### 2.1. Vendor Switching Decisions

Post-outsourcing decisions in the offshoring context have been explored before. Findings from surveying 160 IT managers involved in application development suggests that companies are inclined to backsource when being dissatisfied with the received product quality, service quality, and relationship quality, while the decisions to switch vendors are driven primarily by the dissatisfaction with the levels of relationship, even when the product and service quality is high [9]. In particular, low perceptions of trust, commitment, culture, and communication with vendors are all the most common determinants of switching decisions [9], [13]–[17]. Other reasons might include consolidation of work in the hands of fewer vendors [3], [18], or necessity to run regular public tendering due to procurement regulations [11]. In the light of the growing interest in partnerships between the clients and offshore vendors [15, 16], the focus on a good fit with the vendor is obviously of great importance. Notably, most of the studies related to back sourcing, vendor switching or sourcing in general in an offshore context focuses on the perspective of the client companies [2], [3], [9], [10], [13], [19] while the vendor perspective has not gained much attention [15].

Offshore vendor switching decisions have great consequences on the ongoing operations. The main task and the major risk when switching vendors in an offshore context is related to ensuring business continuity and at the same time building the capability of the new vendor prior to the final handover between the vendors [3], [11], [18]. While fulfilling the business requirements for the outgoing vendor is an integral part of the contract, the necessity to transfer the accumulated knowledge to a competitor is of marginal interest [20] and a potentially demotivating task, which often depends on the quality of the relationship between the vendors. At the same time, executing a successful knowledge transfer is vital for ensuring the business continuity after vendor switching, since the client company often loses the critical internal capabilities and skills as the result of continuous outsourcing [11].

### 2.2. Knowledge Transfer between Vendors

Vendor switching transition is special due to two reasons:

- First, the incoming vendor is tasked to continue someone else's work, i.e. the legacy handed over by the outgoing vendor, which is more challenging than being onboarded in a new project to start [21], [22]. The onboarding into legacy projects demands close mentoring from the original engineers [22], especially because the outgoing vendor might hold much of the critical experiential knowledge which is gained through learning-by-doing [11] and naturally depends on the good cooperation.
- Second, the onboarding of the new engineers does not happen through a traditional process of organizational socialization [21], when the new hires are facilitated in their transition from being organizational outsiders to being insiders [23] working among and with their mentors. In the vendor switching context, the outgoing vendor is tasked to support the incoming vendor regarding their performance adjustment to the job and hand it over. Little if any social integration happens, and the mentors leave the project right after transition. This means that the knowledge transfer window is the

only time when the new engineers can acquire the knowledge required for the job from the sources, which is often referred to as the Big Bang transition [3].

Unlike many other disciplines with mechanical or highly standardized tasks, software engineers depend on the knowledge transferred through socialization. This is because software engineers are expected to acquire the technical, methodological, and product-related knowledge necessary for their job [21], [24], which is rarely available among the new hires [18] and is not always well-documented especially in the legacy products [22]. Furthermore, research exists that views knowledge that software engineers need to perform well as a function of experience that is derived from indirect sources, i.e. through vicarious learning [21], rather than something that can be learned directly from, e.g. documentation. Therefore, the familiarization with a product under development is best acquired through supervised learning by doing [21], [22]. Similarly, the complex, tacit, and systemic knowledge related to work processes cannot be extracted from the documentation or by asking questions [18]. Since supervised learning in vendor switching situations occurs between the outgoing and the incoming vendor [11], the success of the knowledge transfer highly depends on ensuring the goodwill from the outgoing vendor, and their willingness and commitment to train and provide help to the new vendor. Naturally, in case of work consolidation, the transition from multiple to one or fewer vendors is found to be easier than the introduction of a completely new incoming vendor, since the existing vendor is already entrenched in the client's business and can relatively quickly take over the slack [3]. The importance of the relationship between the vendors grows, when onboarding a completely new vendor. The new vendor highly depends on close cooperation with the outgoing vendor, who can pursue two different exit strategies – either actively cooperate or choose a hostile strategy of being uncooperative [12].

### **2.3. Rivalry Behavior towards One's Own Replacements**

Existing research highlights a number of challenges associated with the knowledge transfer between competing parties in outsourcing arrangements. The topic of rivalry behavior and fears associated with training a potential competitor has gained attention in research related to initial outsourcing decisions and knowledge transfer situations between a customer and a vendor [5], [7], [14], [18], [25]–[27]. A well-documented challenge when initiating offshore outsourcing is the risk of onsite personnel sabotaging a sourcing strategy [7], [25], [26]. “Organizational opportunism” is found to derive from the poor clarity of the reasons for initiating offshore outsourcing [7], [25], onsite employees' disappointments toward the sourcing decisions, followed by distrust, fear of losing jobs at onsite and uncertainty about employees' future prospects [25]. Because vendor switching results in a “forced” relationship between competitors, the transfer of resources between the outgoing and incoming vendor is said to present a series of challenges not present in traditional outsourcing arrangements [12]. For example, the risk of opportunistic behavior surfacing among the trainers who onboard their own replacements is assumed to be higher when the trainers are employed by a vendor company and are not the client's internal staff, because of the lacking loyalty to the corporate goals of the client [5]. The motivational disposition of the trainers is especially questionable when they are to be laid off after the knowledge transfer [18]. Raza et al. [3] explored a transition from multiple vendors to a single prime vendor and found that resourcing decisions result in a complex form of relationship between the vendors, who compete while being required to cooperate. The opportunistic behavior and distrust have been found to manifest as a reluctance to share and/or hiding information [11], [14], [25], [27], reluctance to update documentation [11], [12], open unwillingness to collaborate [11], [14], [18], [25], severe self-protective behavior [11], [14], [25], conflicts [12], [14], and resistance to train their own replacements [7], [11], even with intentional hindrances to transfer knowledge [11], [12]. The “hard feelings” when being forced to transfer one's work are said to increase when personnel feels emotionally attached to the work being transferred [7]. The risk of opportunistic behavior surfacing among the trainers who onboard their own replacements is also assumed to be higher when the client company stays neutral and does not help resolve the conflicts between vendors [12], or when the trainers know they will lose their job after knowledge transfer, as in one of the studied cases in [18], in which the helpdesk staff was extremely unhelpful. Monetary rewards [11], [18], and contractual obligations [11] in such situations showed to be ineffective. The decision to

switch vendors and take away the work can, in the worst case, result in threats and antagonism from the outgoing vendor [12] and force people to quit, or result in such unwillingness to engage in training that the incoming vendor might be left with no source of knowledge and the only option of trial-and-error experimentation or reverse engineering [28], which pose a great risk to ongoing operations. Therefore, to avoid the outgoing vendor's engineers quitting early, it is not uncommon that decisions to switch vendors are not always announced before the actual transition begins [10].

Since actions, such as hiring the outgoing vendor's employees into the client organization or into the incoming vendor's organization, is not always possible [12], and contractual obligations and fees for providing experts and documentation to assist the client in the transfer do not always work [11], [18], companies are advised to stimulate the relationship between the trainers and the trainees [12].

In summary, the necessity to train one's own replacement in the case of initial offshoring or when switching vendors is associated with high chances of opportunistic behavior, and researchers have documented various emotional reactions and manifestations of opportunistic behavior. In some cases, however, the outgoing trainers and the incoming trainees succeed, but little prior research focused on the factors contributing to a successful transition and knowledge transfer [12], [20]. Notably, most of the studies on switching vendors focus on the decision to switch a vendor or include a new vendor in the supplier portfolio rather than managing the change-over [11], [12]. Related research evidence comes primarily from studying IT service outsourcing and, to the best of our knowledge, research focusing on the relationship between vendors, which in the vendor switching situations seems an important confounding factor, is scarce. The aim of this study is thus to understand what influences the vendors' behavior and capabilities to cooperate and engage in training and learning when one vendor is set to replace the other.

### **3. Research Methodology**

To answer our research question – What impacts the success of the knowledge transfer in offshore vendor switching situations? – we conducted an exploratory multi-case study of three vendor switching transitions in one client company, which for anonymity reasons we will call GlobCo. Our case study is a part of a larger study, the main focus of which is on the onboarding and knowledge transfers. In the large study, we have researched ten onboarding cases both with internal GlobCo sites and external vendors. The cases selected for the present study are all cases involving vendor switching.

Our study follows the guidelines of the case study design proposed by Yin [29]. Our unit of analysis, the “case” [29], is the transition between the outgoing and the incoming vendor in the context of a vendor switching situation. We chose the case study approach [29] with flexible design [30] because from one hand we rely on related literature that focuses on rivalry behavior in similar contexts (the behavior of the outgoing personnel in the client-to-vendor relationships, and in the vendor-to-vendor relationships in the IT-services context), on the other hand, there is little knowledge about the phenomenon under study, i.e. the relationship and the behavior of the outgoing and the incoming vendors, in the vendor switching context in global software development. The goal of our exploration is, therefore, to find out what is happening, seeking new insights, and generating ideas and hypotheses for the new research [30].

The cases selected for the study were chosen with the help of GlobCo representatives following convenience sampling with a criterion selection lens [18]. The selection criteria included having both successful and unsuccessful transitions, and relatively recent time, i.e. in the last two-three years, to avoid reliance on the memory about events that happened too long ago. All selected cases represent transitions between external vendors to complement the existing research focusing on the rivalry behavior of the client's personnel towards the outsourcing vendors.

### 3.1. Empirical Background

In the following, we present GlobCo, and its three vendor switching projects involving IndCo, IndOrg, EastEuropeCo, and EastEuropeOrg (all vendor names are anonymized for confidentiality reasons).

**GlobCo** is a large international company headquartered in Northern Europe that develops a wide range of software-intensive products and solutions, including generic software products offered to an open market and complex compound systems with customized versions. The company has been globally distributed for a long time with many own sites across the world, and a network of external vendors.

In this paper, we study three cases of vendor transitions, namely Project A, Project B, and Project C (see Fig. 1). Four vendors are involved in the selected cases, IndCo and IndOrg from India and EastEuropeCo and EastEuropeOrg in two different East European countries. All vendor companies are reputable vendors. Evidently, each project involved a different pair of vendors in each case, while two vendors (IndOrg and EastEuropeCo) appear in two cases and occupy both an outgoing and an incoming vendor role. Each case is presented in more detail in the Results section, while in the following, we provide details on our data collection and analysis strategies.

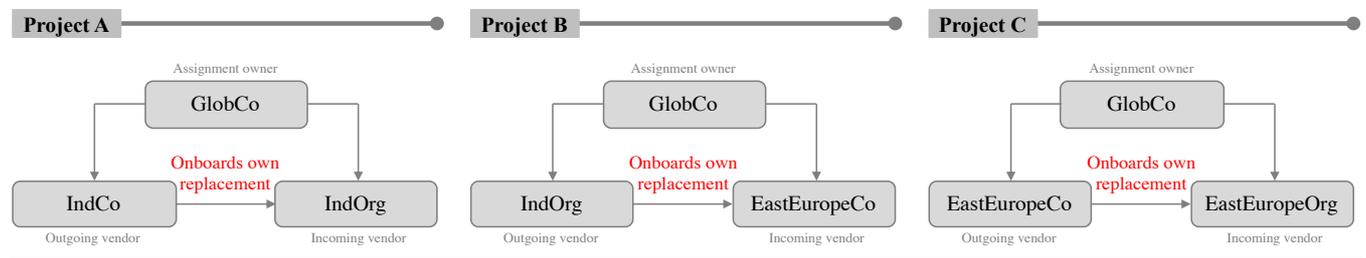


Fig. 1. Project structure and onboarding situations in the three studied cases of switching vendors

### 3.2. Data Collection

Qualitative data for our study was collected through the means of interviewing. We have performed twenty-two semi-structured interviews with twenty-seven interviewees in total across all cases. The interviewees were selected by the companies and were set to represent the key roles in all parties involved. In all three cases, we have interviewed the assignment owner from GlobCo, and two to seven representatives from the vendor companies. During the interviews, we asked the interviewees to recall the events of the transfer, and reflect on what went well, what did not go that well, and what recommendations could they give for future transition projects (see the interview guide in the Appendix). Special attention has been given to the perception of the vendor switching decision, and how that has influenced the relationship between the vendors. All interviews were conducted in May 2018 and mediated via Skype for Business teleconferencing tool. All interviews were recorded with the consent of the interviewees using AudioNote (special software tool for recording and note-taking) except for one interview with the Assignment owner for projects B and C.

In addition to the qualitative data, we received transition project documentation, containing detailed assignment specifications and knowledge transfer documentation (see Table I for details). Assignment specifications were used to understand the assignment details, parties involved, and the amount of the work being transferred. Detailed transfer plans and personnel profiles were used to assess the scope of each transfer project and its transfer activities. Travel plans were used to check which transfer activities were carried out in co-location and how many people were given this opportunity. Progress reports were used to elicit the challenges and obstacles, as well as the carried mitigation actions reported during the transfer.

TABLE I. DATA COLLECTION

<i>Project</i>	<i>Company</i>	<i>Location</i>	<i>No of interviews</i>	<i>No of interviewees</i>	<i>Interviewees</i>
A	GlobCo	Europe	1	1	Assignment owner
	IndCo	India	2	3	Transfer manager, two senior developers
	IndOrg	India	3	3	Project manager, system owner, line manager
	Documentation: Assignment specification, travel plans, detailed transfer plans and schedule, competence buildup plans and follow up assessments, progress reports, list of contacts and incoming vendor's personnel profiles.				
B	GlobCo	Nothern Europe	1	1	Assignment owner*
	IndOrg	India	2	2	Two system architects responsible for the transfer
	EastEuropeCo	Eastern Europe	2	3	Transfer manager, team lead, test lead
	Documentation: Assignment specification				
C	GlobCo	Nothern Europe	2	2	Assignment owner*, supplier manager
	EastEuropeCo	Eastern Europe	4	7	Transfer manager, project manager, program manager, system manager, product owner, senior developer, test expert
	EastEuropeOrg	Eastern Europe	5	5	Assignment manager, system manager, product owner, senior and junior developer
	Documentation: Assignment specification, product information, detailed transfer plans and schedule, follow up on transfer activities, list of handover objects per area, progress reports, travel plans.				
<b>Total:</b>			<b>22</b>	<b>27</b>	

\* The assignment owner form project B and C was the same person and was interviewed only once.

### 3.3. Data Analysis

Preliminary data analysis was performed during the data collection by the researcher who conducted the interviews. The interviewer used a protocol, which contained open-ended questions and space to write responses to the interviewee's comments [31]. Information received during the interview was recorded in the interview protocol under the appropriate question, not necessarily following the chronological order. Although simultaneous note-taking is often seen as challenging, since quickly inscribed notes may be incomplete and partial because of the difficulty of asking questions and writing answers at the same time [31], we believe that this process was appropriate in our case, since it was led by an experienced researcher with fast touch-typing skills. These initial "jottings" and summaries [31] were later selectively transcribed using pointers from the notes to the recording automated by AudioNote. All notes and collected project documentation were then analyzed using NVivo, a tool for qualitative analysis.

The informal process of detailed note-taking and preliminary data analysis [31] was useful to develop a good understanding of each case and get a sense of cross-case patterns. We used a variety of strategies to analyze the material [32]. We started with a qualitative analysis of the interviews and the documentation which was inspired by the coding processes suggested in grounded theorizing, i.e., we used inductive and abductive logic to construct analytical codes and infer theoretical categories from the data by labeling interesting expressions of opinions, problems, events, happenings, or perceptions [33]. The labeling process was operated by assigning a note to an observation or quotation in an interview transcript or a document (called "node" in NVivo). From the set of nodes, several phenomena emerged, that is, a behavior, an attitude, an emotion, a factor or an action that is defined as being significant to the relationship and the transition between outgoing and incoming vendors. In particular, from the phenomena, the following three high-level categories emerged with corresponding sub-categories (see the summary of all codes in Table II). The first category was "Emotions and attitudes" and contained two sub-categories – positive and negative emotions and attitudes. In the second high-level category, we included "Behavioral reactions" with two sub-categories – cooperative and opportunistic behaviors. Finally, in the third category, "Actions and context factors", we included four sub-categories that were related to the vendors' relationship, i.e. "Enablers of cooperative behaviors", "Antecedents of

opportunistic behaviors”, “Actions that minimize the negative emotions and attitudes” and “Actions that help to cope with the opportunistic behaviors”.

The qualitative analysis was performed in iterations and involved continuous comparison of the data, notes, codes, categories and our interpretations and theoretical sorting, which involved going back and forth between the data and the theoretical constructs emerging from the data [33] as well as comparison with the related literature. For example, the following quotation was marked in the initial coding: *“One of the key points of the successful transfer is that the sending organization is very supportive. In this case, [EastEuropeCo] was very supportive. They did not put any intentional obstacles or problems. They were really fully cooperative”* and coded as “Good cooperation”, which was later included in the category “Cooperative behavior” under “Behavioral reactions”.

TABLE II. MAIN CODES RELATED TO VENDOR-TO-VENDOR RELATIONSHIP EMERGING FROM THE QUALITATIVE DATA ANALYSIS

Categories and subcategories	Number of quotations			
	Project A	Project B	Project C	Total
<b>Emotions and attitudes</b>				<b>28</b>
Positive emotions and attitudes	7	4	9	21
Negative emotions and attitudes	1	5	1	7
<b>Behavioral reactions</b>				<b>36</b>
Cooperative behaviors	11	2	14	28
Opportunistic behaviors	2	5	0	8
<b>Actions and context factors</b>				<b>89</b>
Enablers of cooperative behaviors	19	0	15	38
Antecedents of opportunistic behaviors	1	6	1	8
Actions that minimize the negative emotions and attitudes	5	3	5	16
Actions that help to cope with the opportunistic behaviors	0	27	0	27

We used NVivo to create connections between categories and their subcategories, as well as the three studied projects. The result of our analysis is a theoretical model depicting the link between the vendor relationship and the chances of opportunistic behavior of the outgoing vendor in the vendor switching situations (see Section 4.4). Due to the limited number of cases and limited availability of the interviewees we cannot claim theoretical saturation, therefore, we describe our approach as inspired by the grounded theory. However, we have ensured the validity of the findings representing the major events and actions in the three projects. For example, to collect multiple, and possibly contradictory interpretations of events we collected data from all parties involved in a transition and from multiple data sources. Furthermore, to improve the validity of our findings we compared the information gathered from the interviewees with the information documented in the assignment specifications, transfer plans, travel plans, progress reports and other project documents received for analysis. As a result, the transfer history was revisited whenever we found deviations in the factual information, to reflect the documented facts over the facts memorized by the interviewees.

Finally, we developed naturalistic generalizations [31] in the form of recommendations based on the codes related to the sub-categories of Actions and context factors (in Table II). Our goal is to give actionable advice to help companies succeed with vendor switching (see Section 5.3).

As a part of our qualitative analysis, we constructed case narratives (Sections 4.1- 4.3) to explain what was going on in the vendor-switching transition and the nature of the relationship between the outgoing and incoming vendors. To provide the traces between our interpretation of the relationship and the data, we illustrate each of the important characteristics with transcribed quotations from the interviewees. The case study narrative and findings have been presented to GlobCo and verified with the interviewees.

#### 4. Results

In this paper, we present our findings from studying what influences the collaboration between the outgoing and the incoming vendors during vendor switching in the offshore outsourcing context. We

found practices that help in reducing the competing nature of the relationship between the outgoing and the incoming vendors during this transition. In the following, we present the case narratives portraying the course of events in each of the three cases studied, followed by the discussion related to our research question in Section 5.

#### 4.1. Relationship Between Vendors in Project A

Project A is the development and maintenance of a complex, mature product with more than a thousand active deployments. The product has been developed in cooperation between different GlobCo sites and two external vendors, IndCo and IndOrg. IndCo has been involved in Project A since 2007 and has left its footprint in both requirements analysis and design, with less involvement in the release, which was the responsibility of IndOrg. In 2016, the project entered the harvest mode with the downhill phase of the product lifecycle as it was planned for replacement with a new generation product, followed up with significant reductions in development capacity. As a result, in the summer of 2016, GlobCo management decided to both significantly reduce the number of people involved in the project and consolidate all work in one vendor. Based on the results of a call for proposals, IndOrg was selected as the main vendor to receive the work.

The decision to switch vendors caused a lot of frustration and demotivated people in IndCo. It was said to be challenging for IndCo management to clarify that GlobCo had taken the right decision at the right time and the transfer was the best bet for the product. Along with the announcement of the transfer decision, people were alerted for the necessity to prepare for the knowledge transfer. Private talks were organized to ensure motivation among the trainers at IndCo. As an interviewee from IndCo reflected:

“The challenge for me was to identify the people who felt that the product was their own baby, they contributed [to the ongoing operations] the same [as prior to the announcement of the vendor switching] even though the hard decision was made. [...] Another category of people probably felt slightly offended, or they worked in this product for quite long to move on to a new thing. For them we had to go another way, I had to make them understand that this transfer project is a project itself; and the outcome of this [transfer] project will also decide the future opportunities that will knock their door”.

The employees at IndCo were informed that they will be moved to equal or better assignments after the transition, and performance indicators were set to assess the quality of the knowledge transfer, as an incentive for doing a good job. Notably, GlobCo did not discontinue the collaboration with IndCo entirely, there were other ongoing programs that remained active. The future prospects helped to motivate the engineers and keep the best experts engaged in the knowledge transfer and support activities until the end of the transition. Special attention was given to the relationship with the incoming vendor. Engineers were instructed to be open and engaging when training the incoming vendor staff.

The professional attitude from the outgoing vendor was also recognized and highly appreciated by GlobCo management and the incoming vendor representatives. As one of the IndOrg interviewees explained:

“The people on both sides were very professional, and they understood that there was nothing personal that someone is taking over somebody else’s work. [...] There was no apprehension, they were not suspecting us”.

The preparation for the transition started with an onsite visit by the IndOrg core team at IndCo, who have talked to the outgoing vendor’s representatives occupying different roles to create an understanding of what roles and competences are required. The knowledge transfer process was planned for three months. Three weeks were dedicated for onsite training, during which half of the incoming vendor’s engineers traveled for on-site training at IndCo, while the rest connected via video-conferencing. IndCo dedicated 2/3 of their staff members to carry out the training, which started with presentations and walkthroughs on the technical product details, followed by role-specific sessions and peer-to-peer links between the vendor representatives. Notably, there has been some prior collaboration between the vendor representatives primarily on the management level through their projects with GlobCo, which contributed to the positive relationship. Co-location for the engineers was seen as a critical success factor that helped to establish personal links, which were said to last even beyond the transfer project. Despite IndOrg expectations, people from the outgoing vendor were regarded as open. The same language and cultural similarities were also mentioned to have a positive influence on forming the relationship. In fact, the

trained teams received full floor access in the outgoing vendor’s offices and were integrated into the local teams’ work, allowed to observe the ongoing work, follow communication with the end customers. Apart from that, the trainers and the trainees went for joint lunches and organized sightseeing; many have connected via social media and even remained in contact after the transition. Upon the return from the onsite training, the incoming vendor’s engineers received extensive support remotely for three more months. As one interviewee explains,

“I received very good support. It helped me to understand the pain areas, where we need to focus”.

Interestingly, IndOrg has wished to have a few IndCo engineers onsite, but that was seen as a risky activity by the outgoing vendor management, who feared to lose their employees to a competitor.

GlobCo assignment management was also involved in fostering the relationship between the outgoing and the incoming vendors. As an interviewee explains:

“We wanted to build a partnership between the vendors”.

This was also reflected in the expectations expressed in the assignment specification:

“[IndOrg] personnel must be capable of creating good working relations and networks with the [GlobCo] and [IndCo] personnel in [locations]”.

At the same time, it was important for GlobCo to make both parties responsible for the outcome of the transfer, and the topic of open dialog, even if it required carrying out uncomfortable conversations, was discussed regularly until the outgoing vendor felt comfortable raising a flag when things were not going well. As a result, a few IndOrg engineers that did not match the competence profiles or did not make expected progress during the knowledge build-up activities were replaced based on IndCo feedback. The role of GlobCo management in Project A was also fundamental to ease the stress that could have negatively impacted the relationship between the vendors. This is why ensuring the successful transition was prioritized over the commitment to the initial schedule, and knowledge building activities in critical areas were extended. In the end, GlobCo was very satisfied with the results of transition, which was said to have very little impact on the operations, and later had a positive impact on the overall performance.

The summary of the relationships forming in Project A is visible in Fig. 2, in which we visualize the actions and reactions of the parties involved. Evidently, IndCo and IndOrg managed to establish a positive relationship and cooperated during the knowledge transfer. This was partly because of the actions taken by the local management in IndCo, and partially because of the characteristics of the relationship between the vendors.

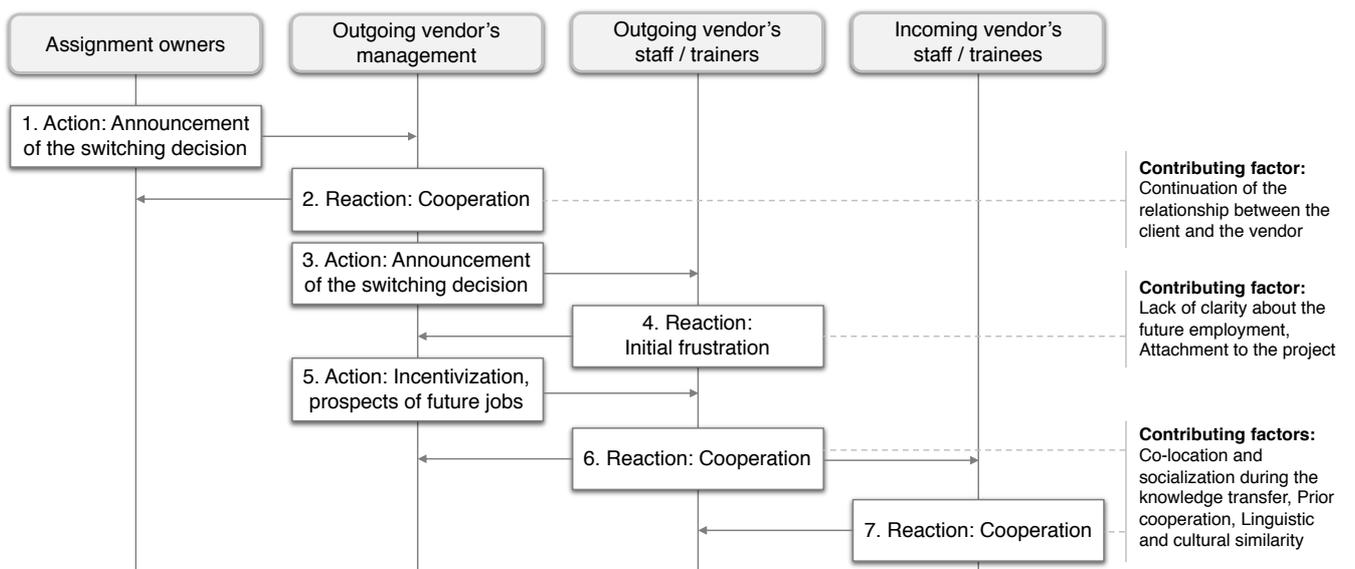


Fig. 2. Summary of actions and reactions in Project A.

## 4.2. Collaboration Between Vendors in Project B

Project B is developed and maintained by GlobCo in collaboration with an Indian vendor, IndOrg. The scope of the project contains two related products – an old and a new one. The old product is a large and complex product used in many platforms and by many customers, having a lot of legacy code and little new development. GlobCo plans to limit further enhancements and put the product into the maintenance mode. The new product is in the beginning of its lifecycle with no customers, bigger in size and complexity, and just stabilized. As a part of the supplier consolidation strategy, GlobCo decided to move the responsibility for Project B to EastEuropeCo, an external vendor, who maintains two other related products from the same portfolio. In this project, we studied the transition between IndOrg and EastEuropeCo. EastEuropeCo was chosen as one of the partners involved in the product portfolio, which was also seen as temporally, geographically, and culturally closer to GlobCo than IndOrg.

To avoid demotivation and keep the outgoing vendor focused on ongoing work tasks, GlobCo managers decided to announce the vendor switching decision very late, i.e. just two weeks before the training was planned to begin. This put IndOrg in a challenging situation. An interviewee revealed that when the information has finally reached the engineers selected for onboarding the incoming vendor, they had just one week for planning the transfer and preparing of the training material, in a project where the policy was to create only the minimal amount of documentation. The decision as such was also said to create a shock among the outgoing vendor's engineers. This naturally resulted in opportunistic behavior, as an interviewee from IndOrg explained:

“There are different human emotions involved in this. Initially, you get the shock, that something you are working on, eventually you won't be part of, as it will be given to someone else. So that itself is a little demotivating initially. [...] And then, other emotions, once you are not responsible for something in the future, you can tend to not be serious about it”.

IndOrg management put effort into clarifying the importance of acting as professionals and executing the transfer successfully to secure a good relationship with their customer, GlobCo, which went beyond the Project B. As one interviewee from IndOrg explained:

“You have to face the same higher management [from GlobCo] tomorrow”.

Besides, IndOrg engineers were “*pacified*” with their personal future plans and that their careers will be taken care of by the company.

The transfer started with a joint transfer management kick-off organized at GlobCo, followed by two weeks long preparation, during which the outgoing and the incoming vendors developed a detailed transfer specification and activity plan. IndOrg said to have dedicated knowledgeable people with broad competence in the areas to prepare the training material. The knowledge transfer phase was largely driven by the incoming vendor. As one of the interviewees from IndOrg described:

“Responsibility [for the transfer] at the receiving side is working better than having that at the sending side. The sending side is occupied with the future plans”.

The actual onboarding and knowledge transfer started with “classroom” sessions with material delivered by IndOrg via teleconferences. This was followed by self-study by the incoming vendor and analysis of the old product errors, support cases, features and test documentation. The incoming vendor management selected highly competent people for the project ensuring relevant domain knowledge and familiarity with the GlobCo processes from related projects. This is why they requested to put more emphasis on on-the-job training and involvement in real tasks as soon as possible. On request, actual work tasks were therefore assigned to the new teams and supported by the trainers, starting from low priority tasks and increasing the task complexity as their experience grew. The interviewees from the incoming vendor complained that the IndOrg provided limited support for competence build-up by dedicating team leads as trainers who had more administrative roles and were not that knowledgeable about the technical details. The EastEuropeCo management suspected that the best IndOrg engineers were involved in finishing the ongoing work. This might have been a result of the agreement between GlobCo and IndOrg documented in the transfer specification, in which the key experts' involvement in the actual knowledge transfer was not a necessity, as evidenced in the following quote from the transfer specification:

“Contribution to the transfer process from key technical experts. Mainly to help with transfer plan creation, alignment, and review. Participation in competence build-up as consultants and possibly trainers”.

Notably, co-location was delayed until the support phase due to challenges with travel and visa arrangements that could not be solved given the short preparation time. By then the incoming vendor's teams already took over the formal responsibility. During the support phase, three outgoing vendor's engineers visited EastEuropeCo to coach the new teams. The selection of supporters who traveled from IndOrg was uneven – while two developers in the critical area were the best experts, the tester dedicated for support had the wrong profile (manual testers instead of the automated testers). The relationship was further injured by the willingness of the new vendor to exclude the outgoing vendor representatives, who were not invited to any meetings, or made aware of the new operational decisions related to the newly started work tasks. Because of this behavior, IndOrg perceived to have made little contribution to the coaching.

Evidently, communication between the vendors did not always work well as admitted by both parties. The EastEuropeCo developers further noted that for one of the product areas IndOrg shared the knowledge unwillingly because they perceived that the incoming vendor's engineers already had related knowledge and experience. This behavior was said to improve after a while. IndOrg admitted that it was unfortunate that the co-located training was not organized, and that the full potential of available technology was also not exploited, as the trainers opted for just an audio channel and not videoconferencing. At the same time, some interviewees from IndCo perceived that limited English language fluency among the Eastern European engineers was also one important limitation since not everybody could ask questions, and those with poor language skills had to be mediated by those with good skills. In retrospect, both sides recognized that many of the mentioned problems have been addressed and resolved through establishing a continuous mutual dialog on the management level.

Finally, despite the challenges, Project B was regarded by GlobCo as a successful transfer and both sides attributed the success to thorough planning and highly experienced personnel at the incoming vendor's side.

The summary of the relationships forming in Project B is visible in Fig. 3, in which we visualize the actions and reactions of the parties involved. Evidently, IndOrg and EastEuropeCo had an injured relationship which was improved with the help of the joint efforts. Finally, our results suggest that the opportunistic behavior of the outgoing vendor could be also attributed to a number of contributing factors brought up by the interviewees.

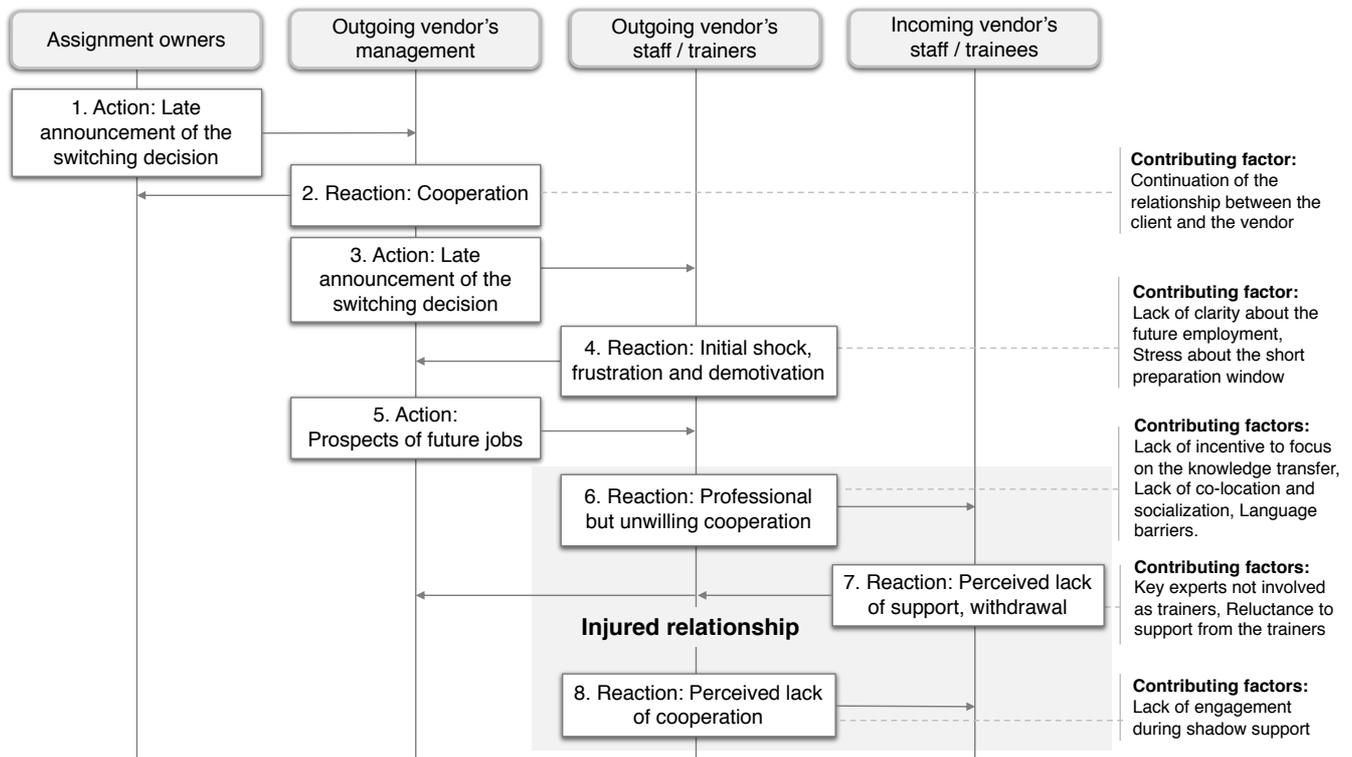


Fig. 3. Summary of actions and reactions in Project B

### 4.3. Collaboration Between Vendors in Project C

Project C has a long history rich in events. It was initiated in GlobCo, and over the years grew in the number of vendors and partners involved. In 2005, the responsibility for the project was transferred to EastEuropeCo. The project was expected to move to maintenance, but due to the popularity and wide deployment of the product its active development continued for many more years. However, when the market needs started to decline, it was finally decided to move the product into the maintenance mode, which meant reducing the number of developers, and vendors. The decision to consolidate the work fell on EastEuropeOrg situated in the East European location different from EastEuropeCo.

EastEuropeCo received the news about the transition just two weeks before the knowledge transfer was planned to start, after the incoming vendor, EastEuropeOrg has started the preparation. The feelings of EastEuropeOrg engineers triggered by the announcement of the vendor switching decision in Project C were similar to the ones experienced by the outgoing vendors in the other two projects. The outgoing vendor's engineers questioned the decision and wanted to understand what was happening. The transfer manager from the outgoing vendor explained that he spent 11 years with the product, felt for it and considered it as a baby, and so did many others. At the same time, there was not much active work left in the project, which alleviated the negative feelings. The management team at EastEuropeCo carried out the dialog to clarify the future for the people involved in the project, ensure the motivation, professional climate and the attitude of constructive cooperation during the transfer. Notably, as in the other two cases, the outgoing vendor in Project C continued their collaboration with GlobCo, which meant that the engineers, who were likely to be moved to other projects with GlobCo, did not have a fear of losing their jobs, and cared about their reputation. This is why they were motivated to execute the transfer well.

The transition was primarily driven and planned by the incoming vendor, while the content for the knowledge transfer came from the outgoing vendor. The preparation started with a co-located kick-off meeting for planning. The outgoing vendor selected experts for trainers' roles to cover all areas of the product. Since the time to prepare for the knowledge transfer was very short, the trainers worked on the necessary documentation and presentations in stressful conditions. Some received just one week for preparation. Besides the common training material, outgoing vendor's representatives were assigned to

recreate the history of the product covering major developments and architectural decisions. At the same time, people said to be motivated to do a good job.

The training started with onsite training containing introductory presentations, followed by a set of lectures and exercises, code walkthroughs, on-the-job training and personal mentoring. In Project C, the onsite visits were organized both ways for practical reasons related to the limited office space and necessity to have access to the outgoing vendor’s hardware. Software developers’ training was hosted by EastEuropeOrg, while the testers traveled to EastEuropeCo. Travel was seen as instrumental in building a good relationship, while the close cultural fit and sincere interest in each other’s cultures worked as additional enablers. Notably, a few people across the sites were colleagues prior to the transition working closely together for at least five years before the transfer. Familiarity, common tools and ways of working were also said to help a lot. Those engineers who have come to visit EastEuropeCo were said to take part in the local celebrations, join entertaining programs, some were even invited to visit the families of the local engineers. The supportive attitude from the outgoing vendor was also highly acknowledged by the incoming vendor, as one of the interviewees from the incoming vendor commented:

“One of the key points of the successful transfer is that the sending organization is very supportive. In this case, [EastEuropeCo] was very supportive. They did not put any intentional obstacles or problems. They were really fully cooperative”.

Notably, the established relationship remained supportive even after the cut-off date, which can be evident in the readiness of the outgoing vendor’s engineers to respond to queries from the incoming vendor’s engineers informally, without hesitation. Besides, the two companies continue cooperating in other projects with GlobCo, and the positive relationship developed during this transition helped establish good cooperation in future assignments.

The summary of the relationships forming in Project C is visible in Fig. 4, in which we visualize the actions and reactions of the parties involved. Evidently, EastEuropeCo and EastEuropeOrg managed to establish a supportive relationship. This could be also the result of a number of contributing factors as marked in the figure.

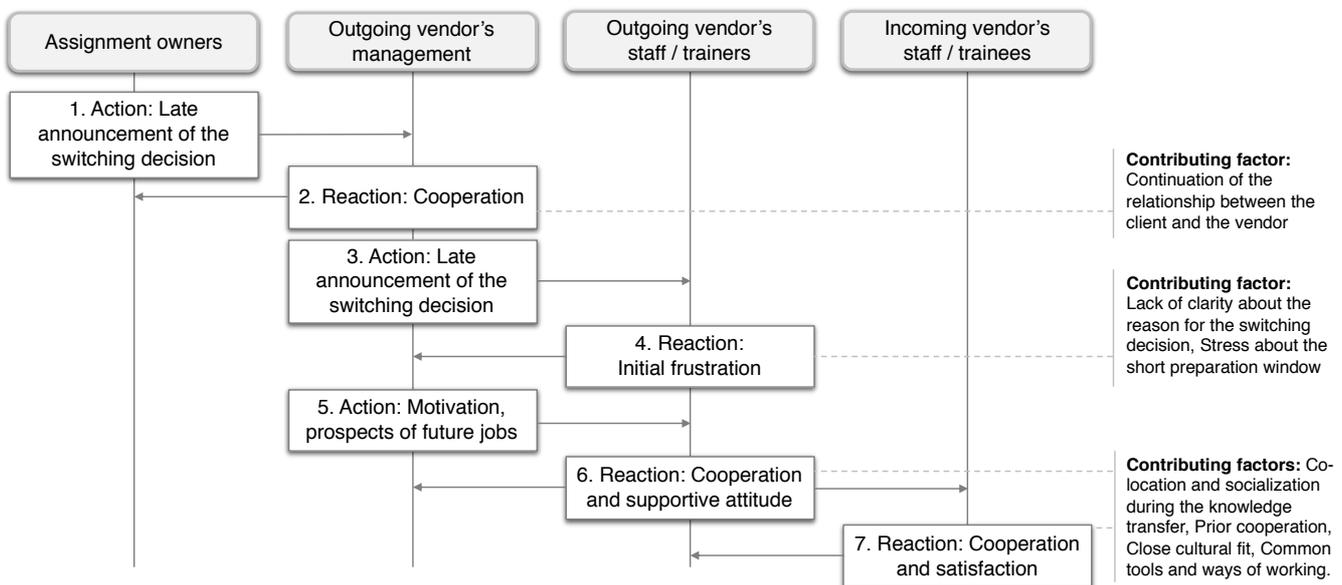


Fig. 4. Summary of actions and reactions in Project C

#### 4.4. Factors Affecting the Transition When Switching Vendors

In this section, we present a theoretical model depicting the factors affecting the transition and the knowledge transfer in the offshore outsourcing vendor switching situations (see Fig. 5). Our model is based on the process inspired by the grounded theory approach and emerging from combining the findings from all three cases. To introduce our theoretical model, we first summarize the major findings

from the cases, paying special attention to the nature of the relationship between the vendors, the outcome of the knowledge transfer, the behavior of the outgoing vendor, and the factors that influenced or moderated these relationships.

All three vendor switching transitions started with negative reactions, including what the interviewees referred to as an initial shock and frustration, but finished positively, as acknowledged by the client organization, i.e. GlobCo assignment owners. This means that the incoming vendor at the time of switching was capable of continuing the work in the projects. In two of the cases, Project A and C, the outgoing and the incoming vendors established a positive and collaborative relationship, in which the outgoing vendors have willingly supported the learning of the incoming vendors, despite the competing nature of their relationship. At the same time, in one of the cases, Project B, the collaboration between the vendors was limited.

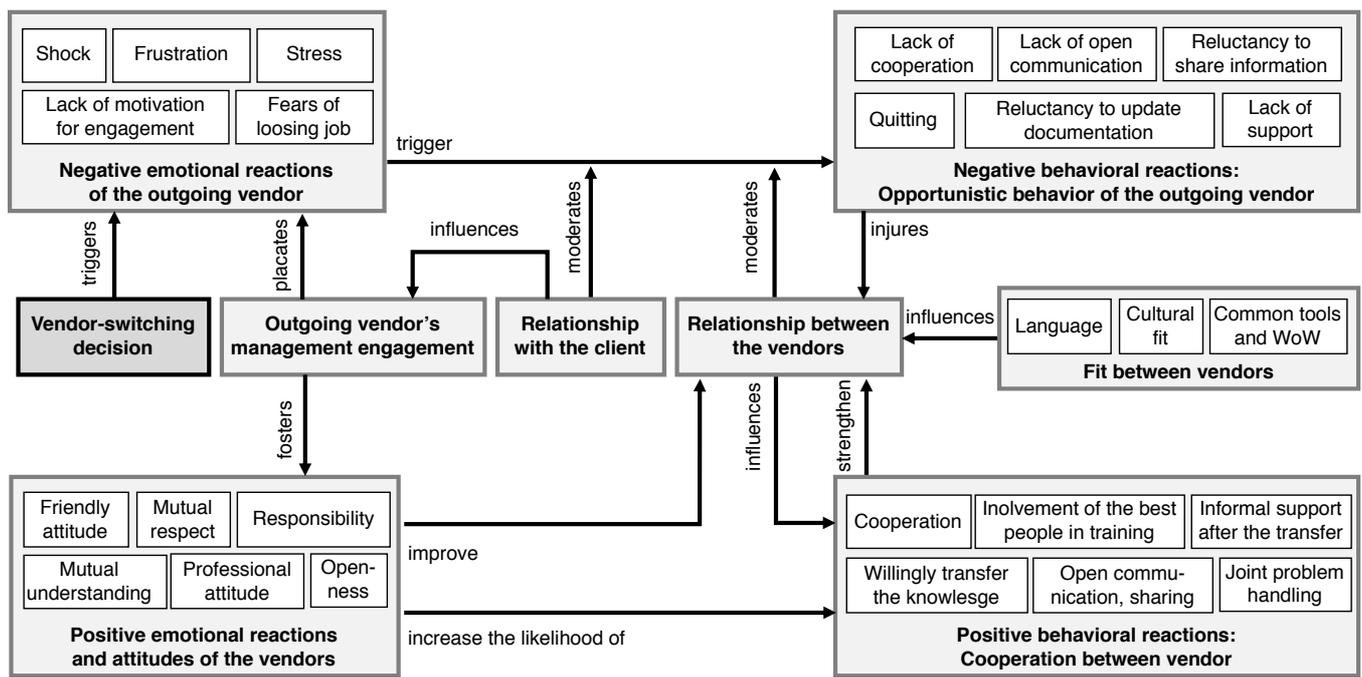


Fig. 5. Theoretical model depicting the role of the vendors relationship in the knowledge transfer in vendor switching situations

Fig. 5 summarizes our findings in a theoretical model. The model depicts chains of possible actions and reactions described in the Sections 4.1-4.3, starting from the vendor-switching decision with links to the possible negative emotional reactions, which trigger opportunistic behavior of the outgoing vendor, which is found to have a negative impact on the quality and the outcome of the knowledge transfer. The role of the relationship between the vendors is multifold. We found that the positive vendor relationship in the two cases was acknowledged by the interviewees as a success factor, while the success of the latter case required a number of actions that helped to cope with the effect of the poor relationship. We, therefore, suggest that the relationship between vendors moderates the link between the negative emotional reactions of the outgoing vendor, such as initial frustration or fears of losing the job, and the opportunistic behavior. In other words, a positive relationship decreases the likelihood of the negative emotional reactions leading to the opportunistic behavior and increases the chances of cooperation between vendors, while a negative relationship between the vendors might strengthen the negative behavioral reactions, which further injure the relationship and hinder the formation of a positive relationship between the vendors. This is evident, for example, in how the outgoing vendor's support and cooperation in Project C strengthened the relationship between the vendors and led to reciprocal cooperation from the incoming vendor trainees. In Project B, in its turn, the unwillingness to cooperate

and transfer the knowledge from the outgoing vendor's side triggered reciprocal unwillingness to cooperate and include the trainers in the local work during the onsite support.

Our results also suggest that the positive emotional reactions, such as friendly attitude, mutual respect, responsibility, mutual understanding, professional attitude and openness from the outgoing vendor's side are likely to lead to the cooperative behavior between the vendors. According to our findings, the positive emotional reactions and attitudes have a positive influence on the relationship between the vendors and can be fostered by the outgoing vendor's local management engagement.

Similarly, we found that the good fit between the vendors, in terms of cultural and language fit, and similarities in tools and ways of working, have a positive influence on the vendor relationship, while the poor language skills and poor cultural fit have the opposite effect.

Finally, we found that the continuing relationship between the outgoing vendor and the client company plays an important role in the vendor switching transition. Our findings suggest that the outgoing vendor's local management was eager to ensure the success of the knowledge transfer because they were likely to face the same management again in related assignments. This is why they placated the negative emotional reactions and attitudes and fostered the positive reactions and attitudes of the personnel.

## 5. Discussion

In this paper, we have described GlobCo, and its three vendor switching projects involving external vendors IndCo, IndOrg, EastEuropeCo, and EastEuropeOrg. We paid special attention to the way incoming and outgoing vendors collaborated in each project. We presented a theoretical model based on the emerging categories and their relationships in the three cases, which depicts the role of the vendor relationship in the knowledge transfer and the other confounding factors. We now discuss the case in light of our research question: *What impacts the success of the knowledge transfer in offshore vendor switching situations?* In this section, we discuss our results by first summarizing our contribution in relation to existing literature, then discuss the implications in the offshoring context, and finally put forward a set of practical recommendations for organizing vendor switching. We conclude our discussion with the research limitations.

### 5.1. What have we learned?

Switching vendors was previously found to be a cumbersome exercise [11] and result in a complex form of relationship, in which the outgoing and incoming vendors cooperate and compete simultaneously [3], [12]. All outgoing vendors in the studied projects have indeed initially experienced negative emotional reactions, but we found that the transition does not necessarily need to be a cumbersome exercise! While our results support that there is a risk of opportunistic behaviors of the outgoing vendor [5], [7], [14], [18], [25]–[27], we found cases where the outgoing trainers and the incoming trainees have managed to establish a well-functioning relationship that contributed to a successful vendor transition, which has not been much discussed in prior literature [12], [20]. This helped us to complement the findings with examples of cooperative behavior, positive emotions and attitudes, and factors that foster the vendor relationship.

Our results deepen the understanding of the complex interplay between the emotional and behavioral reactions, and the role of the vendor relationship and other factors in it, as depicted in our theoretical model in Fig. 5. We found that the vendor relationship plays an important (as previously suggested [3], [12], [14], [15], [25]) but not a critical role in the successful transition between vendors. Positive relationships in two projects did help in transferring the knowledge efficiently, while the injured relationship prevented efficient knowledge transfer and forced the incoming vendor to rely on a self-learning, as previously suggested [28]. This was possible thanks to the incoming vendor's relevant experience and expertise. We also found several interesting chains of reactions related to emotions, attitudes, and behaviors. There seem to be a positive and a negative loop of emotions, attitudes, and behaviors, which is mediated by the vendor relationship.

We confirm the previous findings that client involvement and mediation of the vendor relationship plays an important role [12], [20]. Our results suggest that the continuing relationship between the client and the outgoing vendor contributed to the motivation to perform well during the knowledge transfer, as well as the client's involvement in monitoring the progress and resolving potential conflicts that helped the vendors to have a smoother collaboration.

Our findings regarding the role of the local management at the outgoing vendor's side confirm the multidimensional nature of the relationship as proposed by Kern and Blois [8] who differentiated between the management level and operational level personnel. They found that on a management level the relationship was good, while the cooperation on the operational level suffered from opportunism. We found a similar phenomenon in Project B, where senior management staff was found to act differently than junior engineers. This is in contrast to findings from Chua et al. [18] who found that managers suffered from political disputes and competing behavior while the cooperation on the operational level was smooth. We believe that the continuing relationship with the client is a factor that plays an essential role in determining the reaction of the local management at the outgoing vendor side.

Finally, while the "hard feelings" when being forced to transfer one's work were previously found to increase when personnel feels emotionally attached to the work transferred [7], our findings suggest that those engineers who care for the product, although feeling sad to depart, are likely to do a better job in training the incoming engineers.

## **5.2. What are the implications for switching vendors in the context of global offshoring?**

While we have studied vendor switching in the global offshoring context with two of the cases of transition across countries, and one within-country transition with a client company situated in a different country, many factors found are generic to the switching rather than the offshoring context as such, with few exceptions.

First of all, we found that cultural and linguistic similarities influence the vendor relationship in the following way: a good fit is likely to strengthen the relationship, while a poor fit is likely to weaken the relationship. This confirms prior research viewing cultural and language differences as barriers to communication [34] and the establishment of trust [14]. The implication of this finding is that farshore vendors having a poor cultural fit and linguistic differences would likely to have larger barriers while switching vendors in the same geographic neighborhood or within the same country might alleviate the knowledge transfer.

Secondly, in line with numerous related studies [14], [22], [25], [35], we found that co-location and socialization opportunities significantly contributed to the potential to establish and maintain a good vendor relationship during the knowledge transfer, while the lack of co-located training and socialization did the opposite, as previously suggested [21], [36]. This means that client organizations, when planning vendor switching, shall be aware of the necessity of co-location and plan all appropriate measures to ensure it.

Finally, geographic distribution clearly limits the ability of the incoming vendor to employ and transfer people from the outgoing vendor, as recommended in related studies [11], [18]. In Project B, we also found that extra measures against the loss of employees to competitors during vendor switching can be taken by the competing companies situated in the same country.

## **5.3. What can be done to ensure a successful transition?**

The experiences reported in this paper might be highly related to the continuation of the collaboration between the client and the outgoing vendor, which creates incentives for ensuring a successful transition but is far from being a common practice. Yet, several lessons learned, as follow, can be applicable to many companies in vendor switching situations.

While some researchers recommend the client companies to plan to have sufficient expertise in-house so that the client is able to train the new vendor [20], this is not always possible in companies that outsource to free up resources for other tasks or reduce internal operations. Furthermore, much of the operational knowledge is only visible to the people involved in everyday operations [11]. This is why based on our findings we recommend **the client companies** putting effort into stimulating the relationship between outgoing and incoming vendors during the transition. Finding incentives for the outgoing vendor's collaboration is of prime importance. The atmosphere of the vested interest and the necessity for a high degree of collaboration [6] shall be reinforced by the client company in regular steering meetings. Hence, the responsibility for the preparation for transition shall be assigned to both the outgoing and the incoming vendors, and that the announcement of the vendor switching decision shall be made reasonably in advance, to allow enough time for preparation.

**For the outgoing vendors**, we emphasize the importance of clarifying the future career developments to the employees affected by the transition [7], [25], [37] and providing incentives that are tied to the outcome of the training of the incoming vendor. We also found that the outgoing vendor's readiness to allocate the key experts for training and support, and openness to integrate the incoming vendor's staff into their own ongoing operations during the training play a great role in ensuring a good relationship and the positive outcome of the knowledge transfer. Finally, expression of the goodwill and successful execution of the knowledge transfer is said to have a possibility to lead to the continuation of contractual relationships with the client in other projects [12].

**For the incoming vendors**, we suggest ensuring proactive engagement and "pull behavior" during the vendor switching transition. Our case findings and prior research [7], [37] suggest that so-called "pull transfers" are more successful than the transfers that rely on the ideas, estimates, and plans of the outgoing vendor. A "pull transfer" requires finding leaders and staffing the project with fast learners with relevant competence and experience that also helps to mitigate the impact of potential opportunistic behavior from the outgoing vendor's side. Besides, competence and commitment have been found to positively influence the cognitive dimension of trust and ease the relationship between remote sites [14], [25].

#### **5.4. Limitations, Threats to Validity and Future Research Needs**

Although the transitions studied in this paper are diverse and cover different contexts, we cannot say for sure that our findings are conclusive or comprehensive. Our study contains a small sample of projects with one client company and three different supplier companies, therefore the examples of emotions, attitudes, and behaviors included in our theoretical model (Fig. 5) is limited by the context studied. The depth of insight into the studied phenomenon is also limited by the number of interviews conducted in each company. The number of interviewees among supplier companies ranged from two to seven (3,8 as average), which means we cannot claim the conceptual saturation of our findings. Further research in similar and different contexts is needed to validate and potentially enhance our findings, including more cases with vendors with a high degree of competition, more cases with culturally different vendors, more cases with a high degree of emotional attachment to the product, cases with a completely new incoming vendor with no prior collaboration with the client company, and especially cases, in which outgoing vendors do not continue their collaboration with the client company after the vendor switching transition. Another aspect we have not studied is the contractual relationship. Since we did not have access to the contracts between the client and the vendors, some recommendations for addressing the relationship in the vendor switching situation might have failed to surface in our research, such as contractual plans of an exit strategy [20].

Our findings are also prone to a number of biases and threats to validity. First of all, our study is based on perceptions of the interviewees of their mutual relationship, which can be highly dependent on individuals. We have mitigated this by triangulating our observations by interviewing multiple people from each of the vendor's sides and also comparing the stories told by the outgoing and the incoming

vendors. Second, there is a chance that the interviewees chose not to reveal the true state of the relationship. Convincing individuals to participate in the study, building trust and credibility at the field site, and getting people from a site to respond are all important access challenges [31]. Interviewees may fear that their issues will be exposed to people outside their community, and this may make them unwilling to accept the researcher's interpretation of the situation [31]. In our case, the researchers might have been perceived to represent the client company. To address this, we have informed the interviewees that we are not paid by the client company, that the case-specific findings would be only available for the case participants and used anonymously in the summary format across the cases. We also explicitly stated at the beginning of each interview that the purpose is to learn how to or how not to carry out such transfers and elicited the interviewees' experience, calling to the expert-nature of each of the interviewees. Interviewees were not requested to specify the actors from the organization in any of the critical incidents mentioned during the interview. The information about the critical incidents, if any, was verified by the counterpart of the relationship. To stimulate the openness and seek the negative relationship-related reflections which the interviewees could try to avoid revealing, we specifically sought reflections on whether a certain conflicting situation was at all relevant for their experience in the form of "if I were you, I would have felt ...". Finally, our findings in the form of case narratives were verified with all interviewees and approved by the case representatives to avoid misinterpretations and mitigate the researcher bias.

Last but not least, it is important to note that we make no strong causal inferences between the derived concepts. We have tried to describe the emerging nature of each relationship in the theoretical model. Our findings indicate that some factors are related, while others have only a mediating impact on improving an already positive or worsening an already poor relationship between the vendors. However, more research is needed to understand the complex interplay between the factors and validate the relationships emerging from our empirical cases.

## **6. Conclusions**

In this paper, we reported our findings from studying three vendor switching transitions, which are recognized to result in a complex form of relationship between the outgoing and the incoming vendors who are expected to cooperate while competing at the same time [3]. Our results confirm a number of related research findings from studying the behavior of outgoing engineers in in-house projects whose work is being outsourced, as well as those based on studying vendor switching. We confirm that opportunistic behavior and its negative consequences on the trainers' behavior during the knowledge transfer [5], [7], [14], [18], [25]–[27] is a real risk in vendor switching situations. However, we also found cases where the outgoing trainers and the incoming trainees have managed to establish a well-functioning relationship that contributed to a successful vendor transition. Our analysis established that the vendor relationship has a moderating effect between the initial negative emotional reactions and opportunistic behavior. Besides, we found that while the relationship is certainly very important for successful knowledge transfer (as previously suggested [3], [12], [14], [15], [25]), it is not critical. In the case of an injured relationship, there are ways to cope with these challenges by employing, for example, competent engineers who can gain knowledge by self-learning.

Like in related research [9], the continuity of the relationship between the client company and the outgoing vendor played the major role in mitigating opportunism from the outgoing vendor. Our findings confirm that the outgoing vendors that are a part of a larger partnership are likely to strive to ensure the high-quality knowledge transfer and positive relationship with the incoming vendor (at least on the management level), to secure their reputation and the future contracts with the client company.

Finally, we provide recommendations for client companies facing the necessity to switch vendors and vendors involved in similar transitions, emphasizing the importance of creating a relationship of vested interest and a high degree of collaboration.

## Acknowledgment

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## Appendix 1: Interview guide.

### Questions for the assignment owners

What is your role? Can you describe your role during the transfer?

What went well and why?

- *[for incoming vendors]* Have you received enough support to build the competence during the transfer? How was that organized?

What was challenging and why?

Outgoing vendor's behaviour and characteristics

- Were there any positive characteristics that enabled performance and transfer?
- Were there any negative characteristics that hindered performance and transfer?

Incoming vendor's behaviour and characteristics

- Were there any positive characteristics that enabled performance and transfer?
- Were there any negative characteristics that hindered performance and transfer?

What should have happened differently? What advice can you give for the new transfers?

Can you comment on the performance of the incoming vendor after the transfer?

- *[for incoming vendors and assignment owners]* Did you trace any KPIs after the transfer
- What is your perception about the performance?