

UNDERSTANDING THE VENDORS' NEEDS: A REPERTORY GRID STUDY ON CLIENT-VENDOR RELATIONSHIP QUALITY IN IT OUTSOURCING

Complete Research

Schmidt, Nikolaus, University of Cologne, Cologne, Germany, nikolaus.schmidt@wiso.uni-koeln.de

Rosenkranz, Christoph, University of Cologne, Germany, rosenkranz@wiso.uni-koeln.de

Abstract

The outsourcing of information technology (IT) to external vendors promises lower delivery cost while attaining higher delivery quality. Despite these positive prospects, many information technology outsourcing (ITO) projects still fail, often due to an unsuccessful client-vendor relationship. Most research to date has focused on investigating this relationship from the clients' perspective, even though the vendor is equally important for success. This study empirically identifies 65 vendor-focused factors influencing the development and maintenance of a successful ITO client-vendor relationship by applying Kelly's personal construct theory and the corresponding repertory grid (RepGrid) method. All factors were thoroughly analyzed and categorized based on an a priori conceptual framework for interorganizational relationships derived from organizational exchange theory. The analysis of the identified factors yielded client organization specifics such as top quality client team members, client involvement as well as client team member's networks as especially important for ITO relationship success from the perspective of the vendor, while identifying age of relationship and prior experience with similar projects as less essential compared to prior studies on this topic from a client perspective. With our results, we shed light on the as-of-yet under-researched perspective of the vendor's needs in ITO relationships and we provide indications for gaps in our knowledge on this important topic.

Keywords: Information Technology, Outsourcing, Client-Vendor Relationship, Vendor Perspective, Personal Construct Theory, Repertory Grid Method, Organizational Exchange Theory

1 Introduction

Information Technology Outsourcing (ITO) is defined as the subcontracting of an organization's information technology-related tasks such as software development or system maintenance to an external vendor (Jin Kim et al., 2013). Ever since the first outsourcing contract between Kodak and IBM in 1989, the collaboration of organizations in such ITO relationships is an important phenomenon in the business world (Seddon et al., 2007, Hall and Liedtka, 2005). Based on current market data, the global market for ITO is estimated at \$286 bn. USD in 2013, with an additional expected growth rate of 5.2% for 2014 (Gartner, 2014). Despite the long-term importance of ITO and the plausible vast experience of client and vendor organizations in managing ITO relationships, a large number of ITO engagements still fail (Alami et al., 2008). For example, a recent study revealed that 60% of organizations involved in ITO as clients did not reach their intended and predefined targets with ITO (Horváth, 2014).

In the last 20 years, two major research streams on ITO have arisen (Lacity et al., 2010): (1) research focusing on the analysis of the ITO decision process and (2) research aiming at identifying and explaining the ITO outcome as well as the corresponding client-vendor relationship process (Alagheband et

al., 2011, Kaiser and Buxmann, 2012). Current research demonstrates that the successful management of the client-vendor relationship is a key success factor for positive ITO outcome (Jin Kim et al., 2013, Cata and Raghavan, 2006) as well as one of the major cost drivers in ITO relationships for both client and vendor organizations (Landis et al., 2005). This is especially valid for information systems (IS) development projects, in which the global outsourcing of software development activities has become a well-used strategy in order to save cost and leverage the outsourcing vendor's experience and skills (Dey et al., 2010, King and Torkzadeh, 2008, Poston et al., 2010).

So far, extant research on successful client-vendor relationships has identified critical success factors (Gonzalez et al., 2005) and analyzed the effect of specific factors such as psychological contracts or boundary spanning on ITO success in detail (Langer et al., 2014, Jin Kim et al., 2013, Gregory et al., 2013, Rai et al., 2009, Koh et al., 2004). However, a large majority of these studies investigate only the perspective of the client. This is despite the known importance of vendor-related factors for ITO success (Lahiri and Kedia, 2011, Söderberg et al., 2013). Notwithstanding this alleged relevance, to the best of our knowledge, no studies so far focus on identifying and prioritizing factors for developing and maintaining a successful client-vendor relationship in ITO projects from a *vendor's* point of view. Even though the importance of the vendor and the differences between client and vendor organizations has been acknowledged in current research (Langer et al., 2014, Teo and Bhattacharjee, 2014), the gap on vendor-focused studies is currently leading to calls for further research on ITO in general and the ITO client-vendor relationship from a vendor's perspective (e.g., Xu and Yao (2013), Dibbern et al. (2004)). Therefore, our research addresses this gap by answering the following research question: *"What are relevant factors for developing and maintaining a successful client-vendor relationship in ITO projects from the vendor's point of view?"*

To answer our research question, we conducted an in-depth exploratory field study. Based on 10 interviews with project managers from globally leading ITO vendors, we identified 65 factors for developing and maintaining a successful ITO client-vendor relationship from the vendor's perspective. For our interviews, we applied the repertory grid (RepGrid) method, which originates in psychology and is based on Kelly's personal construct theory (Kelly, 1991). As our main theoretical lens informing our data analysis, we used organizational exchange theory, specifically the conceptual framework on inter-organizational relationships by Levine and White (1961). The framework was applied for analyzing, evaluating, and categorizing the factors identified by the repertory grids.

The remainder of the paper is structured as follows. The next section provides information on related work and theoretical background regarding ITO client-vendor relationships as well as known factors based on the existing body of knowledge. Section 3 introduces the research design including a description of the data collection and analysis methods as well as a brief introduction to the RepGrid method. Section 4 of this paper explains the results of our research with a focus on listing the factors identified within the interviews. Section 5 summarizes our findings, explains the limitations of the study, and provides guidance for future research.

2 Theoretical Background and Related Work

A client-vendor relationship in ITO is defined as "an ongoing, long term linkage between an outsourcing vendor and customer arising from a contractual agreement to provide one or more comprehensive IT activities, processes, or services with understanding that the benefits attained by each firm are at least in part dependent on the other" (Goles and Chin, 2005). The management of a client-vendor relationship is widely acknowledged as a key success factor for creating positive outcomes in ITO projects (Ang and Straub, 1998, Levina and Ross, 2003, Pannirselvam and Madupalli, 2011), whereas ITO outcome is commonly defined and researched in terms of outsourcing success (Lacity et al., 2010). The importance of developing and maintaining a successful client-vendor relationship is particularly valid for long-term

ITO engagements as well as engagements with ambiguous target descriptions due to the fact that contracts “often cannot respond to a dynamic business environment” (Chengxun and Siew Kien, 2006) and “it is not possible to address all facets of a relationship in a formal, written contract” (Jin Kim et al., 2013). This is especially true in today’s increasingly turbulent and dynamic business environment, which increases the need for appropriate resource management in organizations (Sirmon et al., 2007).

Grounded on the guidelines for literature reviews by Levy and Ellis (2006) and based upon the literature review of Lacity et al. (2010) on ITO research, we conducted an initial literature review on factors enabling the development and maintenance of a successful ITO client-vendor relationship (Schmidt et al., 2015). The literature review revealed a total number of 71 germane factors within 43 articles related to ITO outcome and ITO client-vendor relationship. In summary, our literature review revealed several studies focusing on evaluating the effect of specific factors for establishing and maintaining a successful client-vendor relationship in ITO. But despite the already existing research, there are, to the best of our knowledge, no studies available focusing on the general identification of factors for developing and maintaining a successful ITO client-vendor relationships in general and from a vendor’s perspective in particular. This is despite the claimed importance of vendor-related factors for ITO success (Lahiri and Kedia, 2011, Söderberg et al., 2013), which has led to calls for investigating this phenomenon in more depth (Xu and Yao (2013), Dibbern et al. (2004). Therefore, our research aims at exploring such factors and interdependencies for extending our knowledge on this topic.

One of the most important and prevalent theoretical frameworks in IS research in general (Schrader, 1991, Chatterjee and Ravichandran, 2004) as well as in ITO-related research in particular is the framework of Levine and White (1961). In ITO the framework has been widely used, for example, as a baseline for developing frameworks for strategic ITO partnerships (Willcocks and Kern, 1998) and alliances (Gulati, 1998). The framework is based on organizational exchange theory and defines the exchange between organizations in inter-organizational relationships “as any voluntary activity between two organizations which has consequences, actual or anticipated, for the realization of their respective goals or objectives” (Levine and White, 1961). Derived from this general definition on organizational exchange, Levine and White (1961) developed a conceptual framework on interorganizational relationships consisting of four dimensions relevant to the actual exchange situation: (1) *the parties to the exchange*, focusing on specific characteristics of the involved parties like organizational form, function, prestige and size; (2) *the kinds and quantities exchanged*, including the actual exchanged elements (consumers, services, resources) as well as information on the availability, rights and obligations of these organizational elements; (3) *the agreement underlying the exchange*, focusing on the underlying prior agreement (contract) of the exchange; (4) *the direction of the exchange*, differentiated by unilateral exchange (exchange from sender to receiver only), reciprocal exchange (exchange from sender to receiver in return for other elements), and joint exchange (exchange from two organizations acting in unison toward a third party). These four concepts are especially suitable to describe the elements of any client-vendor relationship on a general, high level. In addition, the framework originates from organizational exchange theory, which is a suitable theory for our study due to the exchange-driven focus of ITO engagements. We applied this framework as our theoretical lens and used the above concepts for analyzing, evaluating as well as categorizing the empirically identified factors.

3 Research Method and Design

3.1 Research Method Overview

For conducting the empirical study, we used RepGrid (Kelly, 1991, Tan and Hunter, 2002, Fransella et al., 2004). This technique originates from psychology and provides the methodical extension of Kelly’s personal construct theory (PCT). Kelly’s (1991) theory assumes that each individual, during their lifetime, invents a system of personal constructs based on her or his own experience. The individual then uses this system to interpret current situations and anticipate future events. The RepGrid method can be

used to identify and analyze such personal constructs by illustrating the individual's subjective view of a specific phenomenon through cognitive references (Tan and Hunter, 2002). Past studies using the RepGrid method demonstrate the suitability of both PCT as well as the RepGrid method for IS research in general. These studies focused, for example, on risk management in information technology projects (Moynihan, 1996) and cross-cultural analysis of systems analysts excellence (Hunter, 1997).

3.2 Research Design

There are various options for designing empirical research based on the RepGrid method (Tan and Hunter, 2002), including the definition of the *research objective* (e.g., human objects, technical objects, organizational objects), the *research perspective* (qualitative, quantitative), the *nature of the repertory grid* (ideographic, nomothetic), as well as the specific *research design* (e.g., element selections, construct identification, linking elements to constructs, result analysis, and sample size). Table 1 provides an overview about the specific research design for our RepGrid study.

Research Objective	"Identification of factors for developing and maintaining a successful client-vendor relationship in ITO projects" (organizational objects)
Research Perspective	Qualitative
Nature of the Repertory Grid	Idiographic
Element Selection	"Identification of elements by the participant" (elicited elements)
Construct Identification	"Construct elicitation from triads" (minimum context form)
Linking Elements to Constructs	"Mapping of an element to one pole of the bipolar construct scale" (Dichotomizing)
Result Analysis	"Analysis of the construct's content" (content analysis)
Sample Size	10 Interviews

Table 1. Research Design Overview (based on Tan and Hunter, 2002)

In detail and based on our research object and research question (see Section 1), we defined the ITO projects studied in our research as the elements of our construct system ("objects of interest"). Correspondingly, we defined the factors for developing and maintaining a successful client-vendor relationship as the constructs of our analysis. The goal of our research is therefore the analysis of relations between our elements (ITO projects) and constructs (factors for developing and maintaining a successful client-vendor relationship) from the research participant's point of view. Regarding the sample, we conducted information-oriented, purposeful sampling (Patton, 1990) and identified a priori 10 vendor project managers as interviewees whose projects represented "typical" ITO cases.

We solely focused on vendor organizations for identifying our research participants because our research focuses on the vendor's point of view. Within an initial selection, we identified three vendor companies based on the Luenendonk list of leading IT consulting and system integration companies in Germany (<http://luenendonk.de/>) as well as personal contacts. All three vendor companies have more than 40,000 employees and provide IT services for clients in different industries worldwide. Based on already established contacts within these companies, we identified 10 research participants with vast experience in ITO client-vendor relationship management for our empirical study (see Table 3). Based on Tan and Hunter (2002) and Guest et al. (2006), a sample size of 10 is sufficient for our purpose, because our study is the baseline work for an overarching large-scale empirical analysis of the ITO client-vendor relationship in further research. Hence, the goal of our study is not the identification of a complete factor list, but instead the initial identification of vendor-focused factors for developing and maintaining a successful ITO client-vendor relationship for further evaluation based on quantitative research methods. Small samples can be quite sufficient in providing complete and accurate information within a particular context, as long as the participants possess a certain degree of expertise about the domain of inquiry; samples as small as four individuals can render extremely accurate information with a high confidence

level if they possess a high degree of competence for the domain of inquiry (Guest et al., 2006). By definition, we also presume a certain degree of participant homogeneity because in purposeful samples, participants are chosen according to some common criteria (here: experience in ITO from a vendor's perspective).

ID	Position	Working Experience	ITO projects	Project Lead	Project Figures		
					TM	DUR	VEN
A	Consultant (m) "Technology Integration"	3	7	2	1-30	5-12	1-4
B	Engineer (m) SAP Security	7	10	4	2-100	2-18	1-2
C	Partner (m) "Financial Services"	15	50	35	1-30	3-36	1-7
D	Senior Manager (f) "CRM"	14	20	15	3-30	1-24	1-3
E	Senior Consultant (m) "Financial Services"	8	8	4	1-20	6-30	1-5
F	Senior Consultant (m) "Financial Services"	7	4	2	2-30	3-12	1-7
G	Senior Consultant (m) "Enterprise Applications"	8	9	3	6-40	3-18	1-3
H	Manager (m) "Financial Services"	9	35	30	1-150	1-24	1-8
I	Manager (m) "Financial Services"	12	7	3	2-1000	3-36	1-3
J	Manager (m) "Infrastructure Consulting"	10	10	8	2-1000	3-24	1-11

Legend: *Position:* Description of the research participant's level, gender (f = female; m = male) and role; *Working Experience:* Research participant's working experience in years; *ITO projects:* Number of ITO projects, the research participant was assigned to (overall); *Project Lead:* Number of ITO projects, the research participant was assigned to (as project lead); *Project Figures:* TM = no. of team members / DUR = Duration (in month) / VEN = number of involved vendors (all project figures listed as min to max (e.g. TM = 1-20 > min. 1 team member / max. 20 team members)

Table 2. Research Participants - Background Information

All interviews were based on a pre-defined interview guideline including five consecutive steps, starting with a brief introduction and followed by an explanation of definitions as well as concepts. The main part of the interview contained the identification of factors for developing and maintaining a successful client-vendor relationship in ITO projects based on the research participant's experience. This step also included the "laddering" of the identified factors to gain a deeper understanding of the factors and to provide an importance ranking of the factors (Tan and Hunter, 2002). Hereby, we explicitly asked the interviewee to provide further details in regards to the most important factors based on his or her point of view. For example, we asked the participants to explain how the specific factor affects a successful IOT client-vendor relationship ("positive laddering") as well as why other factors are less important for developing and maintaining a successful ITO client-vendor relationship ("negative laddering"). After identifying, ranking and laddering the factors, the interview was closed with a brief investigation of the participant's background and information as well as a general debriefing session for explaining the next steps of the research project to the participant. Figure 1 provides an overview about the interview cycle and the planned timeline. The interviews lasted between 1.5 hours and 2.5 hours. All interviews were tape-recorded, anonymized, and transcribed. The transcriptions formed the baseline for the data analysis described in Section 3.3.

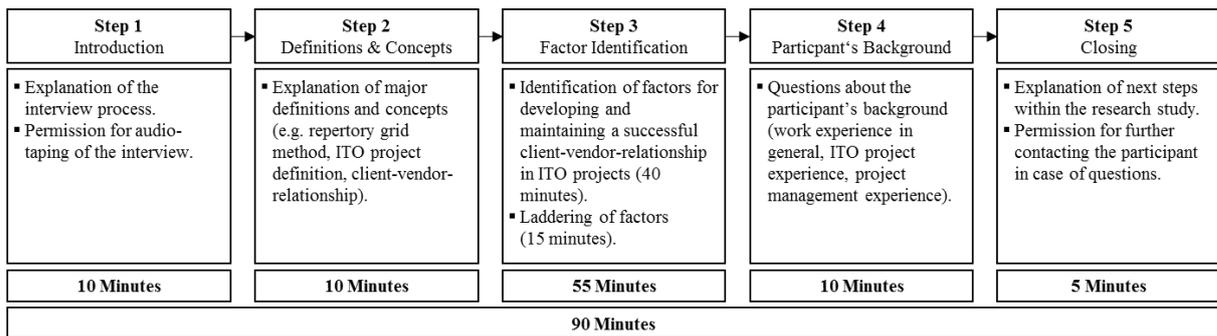


Figure 1. Overview of the Interview Process

3.3 Data Collection and Analysis

In the beginning of interview step 3 (“Factor Identification”), every participant was asked to name four relevant ITO projects where the participant took part in for a considerable and sufficient amount of time. Therefore, a total number of 40 ITO projects were identified as elements of our empirical study. 60% of these ITO projects originated in the financial services industry, whereas other branches included the chemical industry, logistics, telecommunications, and the public sector. The projects lasted between 3 and 36 months, with a majority of project lengths between 3 and 12 months. The identified projects included activities such as IS development as well as system transformation, migration, and conception tasks, with a strong focus on the development of individual software for the client organizations. Based on the different nature of the identified ITO projects within our empirical study, we presume that the identified common success factors allow for generalization across these projects.

After identifying the ITO projects (elements), we asked the participants to name and explain factors that encouraged or prohibited the development or maintenance of a successful client-vendor relationship in the named projects. The last part of step 3 included both the importance ranking of the identified factors by the interviewee based on a three-point Likert scale (1 = low / 3 = medium / 5 = high) as well as the so-called “factor laddering” aiming at generating a deeper understanding of the factors itself and identifying further related factors (see Section 3.2). Based on this approach, we identified a total number of 144 factors. The largest number of factors identified in one interview added up to 18, the smallest number was 9 (average: 13 factors).

The analysis phase of our research started with evaluating the interview results grounded on the interview transcripts. Within this step, we eliminated 14 factors based on the reason that they were the same or very similar to other factors mentioned in the same interview. Therefore, we used 131 factors for our consecutive factor consolidation. In this particular step, we consolidated the factors across all interviews and unified factors that described similar situations or concepts. The outcome of this step was a final list of 65 consolidated factors, resulting in a consolidation quota of 2.05, which is comparable to other RepGrid studies in IS research (Moynihan, 1996). Prior to further categorizing the identified factors, we asked the research participants to evaluate the consolidated factor list based on the interview transcripts and a specific factor list including both the old and the new factor name, the factor description, as well as the reason for a specific consolidation. Based on the provided information, all research participants approved the consolidation results. Three research participants provided further information and enhancements, which were added to the consolidated factor list.

After analyzing and consolidating the identified factors, we categorized the factors based on the client-vendor relationship model by Levine and White (1961) described in Section 2. For the categorization, we used a double-blind coding approach with two researchers independently categorizing the factors, resulting in an inter-coder reliability of 0.72 based on Cohen’s Kappa measure, which is substantial and therefore suitable for our study (Landis and Koch, 1977). Based on the list of 65 consolidated factors,

27 factors were categorized into the dimension “the parties to the exchange”, 2 factors concerned the dimension “the kinds and quantities exchanged”, 13 factors were sorted into the category “the agreement underlying the exchange”, and 5 factors were categorized into the dimension “the direction of the exchange”. A total number of 18 factors could not be sufficiently categorized based on the framework of Levine and White (1961), which leads us to the conjecture that the client-vendor relationship model of Levine and White requires enhancements for ITO client-vendor relationship. Figure 2 summarizes our data collection and analysis approach.

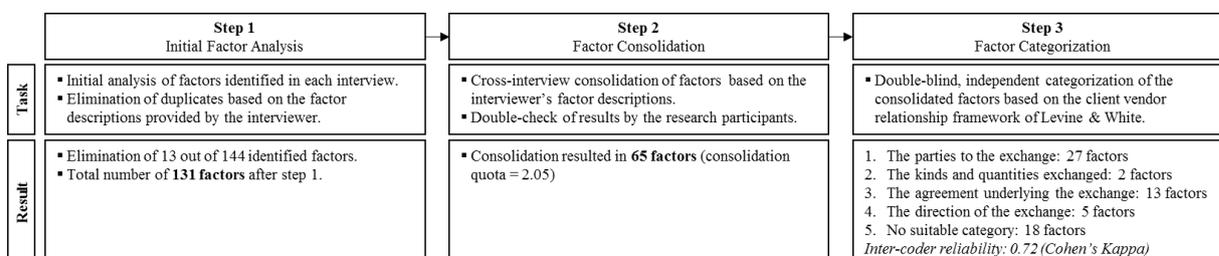


Figure 2. Data Analysis Approach and Results

4 Results

As described above, the factor analysis, consolidation, and categorization resulted in 65 factors categorized into 5 dimensions. The factors including the factor description, the factor's interview listings and importance ranking as well as the corresponding factor based on the literature review) are listed in Table 3. Due to space restrictions, detailed descriptions of the factors based on the interview transcripts are available from the authors on request.

ID	Factor Description	Interview Listings	Importance Ranking	Corresponding Factor
Dimension 1. The parties to the exchange				
1.1	Client employees accept vendor instructions.	1	5.00	▪ n/a
1.2	High reliability of client and vendor project team members.	1	5.00	▪ n/a
1.3	Technical experience of client and vendor project team members.	1	5.00	▪ Client Capabilities ▪ Vendor Capabilities
1.4	Consistent and open organizational culture on the client's side.	1	5.00	▪ Culture
1.5	Same market of client and vendor.	1	5.00	▪ n/a
1.6	Functional and technical knowledge is symmetrically available.	1	5.00	▪ Knowledge Asymmetries
1.7	Employee turnovers from vendor to client.	1	5.00	▪ n/a
1.8	Similar personality of client and vendor team members.	1	5.00	▪ Culture
1.9	Timely and sustained decisions from client.	1	5.00	▪ n/a
1.10	Appropriate time allocation of client team members for the project.	6	4.67	▪ n/a
1.11	Top management support (client & vendor)	5	4.20	▪ Top Management Support
1.12	High commitment of client in regards to the project.	2	4.00	▪ Commitment
1.13	Top quality customer client team members for the project.	3	3.67	▪ n/a

ID	Factor Description	Interview Listings	Importance Ranking	Corresponding Factor
1.14	Similar (organizational) cultures of client and vendor.	3	3.00	▪ Culture
1.15	Same mother tongue of client and vendor.	2	3.00	▪ Culture
1.16	Good (IT) equipment at client site.	2	3.00	▪ n/a
1.17	Homogeneous business background from both client and vendor team members.	1	3.00	▪ Client Capabilities ▪ Vendor Capabilities
1.18	Pure project organization on client side.	1	3.00	▪ n/a
1.19	Good network of client team members within client organization.	1	3.00	▪ n/a
1.20	Expert knowledge available on both sides (client and vendor team member).	1	3.00	▪ Client Capabilities ▪ Vendor Capabilities
1.21	Variable organization structure on client side.	1	3.00	▪ n/a
1.22	Small age difference between client and vendor team members.	1	3.00	▪ n/a
1.23	Financially unimportant clients (from the vendor's turnover perspective)	1	1.00	▪ n/a
1.24	Small degree of work sharing within the client's organization.	1	1.00	▪ n/a
1.25	Experience with similar projects on both sides.	1	1.00	▪ Client Capabilities ▪ Vendor Capabilities
1.26	Client organization is publicly listed as a stock corporation.	1	1.00	▪ n/a
1.27	Client organization is a "start-up".	1	1.00	▪ n/a
Dimension 2. The kinds and quantities exchanged				
2.1	Active dialog between client and vendor throughout the project.	6	5.00	▪ Cooperation
2.2	Intensive exchange of information and knowledge between client and vendor.	6	3.80	▪ Knowledge Transfer / Sharing
Dimension 3. The agreement underlying the exchange				
3.1	Reliable project requirements (from client).	5	5.00	▪ Creditability
3.2	Adherence to warranties (from client).	3	5.00	▪ Creditability
3.3	Variable contract structure.	1	5.00	▪ Formal Contracts
3.4	Formal arrangements with the client concerning system maintenance (after the project).	1	5.00	▪ n/a
3.5	Securing of quality requirements from the vendor side.	1	5.00	▪ Requirements instability
3.6	Timely delivery of expected deliverables (from the vendor side).	1	5.00	▪ Commitment
3.7	Clear definition of project targets, tasks and responsibilities.	6	4.33	▪ Project Management (1053)
3.8	Written contracts and agreements.	3	3.67	▪ Formal Contracts
3.9	High degree of independence regarding project management and execution.	1	3.00	▪ Project Management
3.10	Suitable project timeline (based on contract).	1	3.00	▪ Project Management
3.11	Limitation of daily working hours for client and vendor team members.	1	3.00	▪ n/a

ID	Factor Description	Interview Listings	Importance Ranking	Corresponding Factor
3.12	The client abides to the contracted project volume (content-wise).	1	3.00	▪ Creditability
3.13	Fix term contract.	2	2.00	▪ Formal Contracts
Dimension 4. The direction of the exchange				
4.1	Jointly agreed-upon project approach.	1	5.00	▪ Mutual Understanding
4.2	Tight relationship and working behavior between client and vendor.	1	5.00	▪ Partnership and Relationship Quality
4.3	Personal relationship between client and vendor team members.	4	4.00	▪ Partnership and Relationship Quality
4.4	Client involvement in the project.	3	3.67	▪ n/a
4.5	Mutual and fair cooperation between client and vendor.	9	3.44	▪ Cooperation
Dimension 5. Further factors (no category based on Levine & White Framework)				
5.1	Vendor performs expectation management.	3	5.00	▪ Project Management
5.2	Nonpolitical project collaboration.	1	5.00	▪ Collaboration
5.3	Positive team atmosphere.	1	5.00	▪ n/a
5.4	Avoidance of external disturbances.	1	5.00	▪ n/a
5.5	Comprehensive project management methods.	2	4.00	▪ Project Management
5.6	Identification and integration of relevant stakeholders from client side.	3	3.67	▪ n/a
5.7	Small number of stakeholders.	4	3.00	▪ n/a
5.8	Quality assurance from client side.	2	3.00	▪ n/a
5.9	Low rate of escalations (client and vendor).	1	3.00	▪ n/a
5.10	Strong centralization of project organization.	1	3.00	▪ n/a
5.11	Vendor working directly at the client's site.	1	3.00	▪ n/a
5.12	Strong Collaboration on client and vendor executive level.	1	3.00	▪ Collaboration
5.13	Implementation of joint team events.	1	3.00	▪ n/a
5.14	High vendor appreciation from client.	1	3.00	▪ n/a
5.15	Centralized project teams.	3	2.33	▪ n/a
5.16	Long-term relationship between client and vendor.	5	2.20	▪ Age of Relationship
5.17	Consistent contact persons from the client.	1	1.00	▪ n/a
5.18	Fair accommodation of project team at project premises.	1	1.00	▪ n/a
<p>Legend: ID: X.Y with X = Dimension and Y = Factor ID (sorted by importance ranking); <i>Interview Listings</i>: number of interviews (sum: x out of 10), where the factor was named by the respective interviewee; <i>Factor Description</i>: factor description based on the participant's view (pole only, anti-pole description available on request); <i>Importance Ranking</i>: average factor importance ranking, measured on Three-Point Likert Scale (1 = low / 3 = medium / 5 = high); <i>Corresponding factor</i>: corresponding factor identified within literature review ("n/a" in case no corresponding factor identified). A full list of factors including corresponding references is available from the authors on request.</p>				

Table 3. Summary of Identified Factors

Due to space restrictions, we are not able to provide detailed insights into the description of all identified factors. Therefore, we will only provide example descriptions for some of the most frequently mentioned

factors. A complete list with all factor descriptions and corresponding interview transcripts is available from the authors' on request.

The most frequently mentioned factor in our study is *mutual and fair cooperation between client and vendor* (Factor ID 4.5). The factor was mentioned in 9 out of 10 interviews and received a combined importance ranking of 3.44. The study participants explained that a successful ITO client-vendor relationship requires a joint team-work across organizational borders as well as joint problem solving and decision making:

“The cooperation needs to be mutual and cooperative. For sure there needs to be a hierarchy [for decision making], but this should not be provided “top-down”. This should also be “bottom-up” to be successful in the end.” (Participant H, translated from German).

The opposite of a *mutual and fair cooperation between client and vendor* would be a *classical ITO client-vendor relationship*, in which the client is only executing an overarching control function and without joint team-work. This classical type of relationship between client and vendor is, based on the study participant's view, generally leading to a lower relationship and output quality, because in such a relationship, there is no mutual information and knowledge sharing available:

“[A relationship should not be in a way], that the client says he paid for it and now we should leave him alone. Also, he should not only control, what we [as the vendor] need to do, despite taking into account our knowledge of the system or the technical details. This is fatal for the project.” (Participant B, translated from German)

Furthermore, the study participants mentioned the factor *appropriate time allocation of client team members for the project* (ID 1.10) as important for developing and maintaining a successful ITO client-vendor relationship. The factor was mentioned by 6 out of 10 interviewees and received an overall importance ranking of 4.67. Based on the interviewee's factor descriptions, the appropriate time allocation of client team members is especially important because, due to the mostly long-term nature of an ITO engagement, an exhaustive definition of all requirements in an ITO contract prior to the start of the implementation phase is neither feasible nor appropriate. Hence, an ITO engagement always includes requirements changes, which need to be discussed with the client. Therefore, it is important to have an appropriate access to client employees during the implementation phase to discuss requirement changes, gather further knowledge and gain change approvals:

“[As the vendor] I am not part of the client organization and I cannot put all the client employees' knowledge into the system specification documents beforehand. Therefore I need to talk to the people who will use the system in the end, if the ITO object is for example a system implementation. And I need to speak to them, to get them involved in the project. We will leave the project at some point in time, afterwards the client needs to live with the solution. [...] The earlier I involve the client employees, the higher is the later acceptance rate.” (Participant D, translated from German)

Another frequently mentioned and high-ranked factor is the *active dialog between client and vendor throughout the project* (ID 2.1). The factor was mentioned by 6 interviewees and received an average importance ranking of 5.0. The factor describes the active communication between client and vendor team members. During an ITO engagement, various problems, issues and changes occur on a constant basis. In such situations, it is essential that both the client and the vendor teams actively communicate this issues to the other partner to proactively define a joint solution plan:

“I would say openness, more specifically the openness, how problems are discussed in the [ITO] project. On the one hand, there are clients, who do not discuss problems. Cause for them, there are no problems and the vendor needs to solve everything. On the other hand, there are clients, who accept that there are problems [in ITO engagements] and who openly discuss them to find suitable solutions. [Question from interviewer: Could this be described as an active dialog?]. Yes, this is perhaps even a better description.” (Participant J, translated from German)

One participant explicitly mentioned the role of the integration manager within the discussion of Factor ID 2.1 in the interview. An integration manager from both the client and the vendor side can facilitate such an active dialog between the ITO parties to make sure that all participants are always aware of relevant issues and changes:

“I would also say [one important factor] is the integration of all client and vendor team members throughout the project. Actually, the role of the integration manager. [...] Someone, who makes sure, that there is an active dialog between the different parties. Someone, who makes sure, that there is coordination.” (Participant G, translated from German)

5 Discussion

5.1 Summary of Findings and Implications

The major outcome of our study is the identification and categorization of factors contributing to the development and maintenance of a successful client-vendor relationship in ITO projects from the vendor’s perspective. Based on the general research objective, our study contributed to IS research in general and ITO-related research in particular by several means.

(1) *Enhancing our knowledge on ITO client-vendor relationships from the vendor’s point of view.* As described in Section 2, most studies available on ITO and the client-vendor relationship in ITO focus on the client’s point of view. By solely focusing on the vendor instead of the client, our study enhances our knowledge on factors for developing and maintaining successful ITO client-vendor relationships from the vendor’s perspective. This enhanced knowledge is especially observable when comparing the empirically identified factors with the factors extracted from the literature review. Our empirical analysis identified 65 factors contributing to a successful ITO client-vendor relationship. Out of these 65 factors, we were able to attach 33 factors with already known factors based on our literature review, resulting in a list of 32 new factors. This finding is especially remarkable when looking at the matching quotas for each of the dimensions based on Levine and White’s (1961) framework listed in Table 4. A low matching quota (41% respectively 28%) is especially valid for dimension 1 (*parties to the exchange*) and for dimension 5 (*further factors*), which leads us to presume that our research revealed so far unknown factors concerning the client’s organization specifics for developing and maintaining a successful ITO client-vendor relationship from the vendor’s point of view, for example, the *acceptance of vendor instructions by the client* (ID 1.01), the *appropriate time allocation of client team members for the project* (ID 1.10), or the *network of client team members within their own organization* (ID 1.19). Based on this analysis, our research indicates that there is still a gap in our knowledge on vendor-specific factors for developing and maintaining a successful ITO client-vendor relationship, especially concerning the set-up of the client organization.

Dimension (based on Levine & White)	Matching Quota
Dimension 1: <i>Parties to the exchange</i>	11/27 (41%)
Dimension 2: <i>The kinds and quantities exchanged</i>	2/2 (100%)
Dimension 3: <i>The agreement underlying the exchange</i>	11/13 (85%)
Dimension 4: <i>The direction of the exchange</i>	4/5 (80%)
Dimension 5: <i>Further factors</i>	5/18 (28%)
Legend: <i>Matching Quota:</i> Provides the quota of matched factors (empirical-induced and literature-induced) with the total number of empirically-induced factors per dimension (e.g., 27 empirically identified factors in category 1; 11 of these factors could be matched to a literature-induced and therefore already known factor).	

Table 4. Matching Quota per Dimension (Empirical-induced vs. Literature-induced Factors)

(2) *Identifying needs for enhancing client-vendor relationship models in ITO related research.* Within our study, we used the conceptual framework on interorganizational relationships of Levine and White

(1961) as our theoretical lens. The framework originates from organizational exchange theory, which was chosen for our study due to the exchange-driven focus of ITO engagements. The categorization of the empirically identified factors into the framework's dimensions showed that the framework is in general suitable for describing and explaining client-vendor relationships in ITO and could be used as a baseline for further developing ITO client-vendor relationship models. Nevertheless, the relatively high number of non-assignable factors (18 out of 65 factors) indicates that there are important gaps in the model for further usage in ITO-related research. An initial analysis of our results in the light of potential extensions of the framework suggest three further dimensions, which could be included in the framework to enhance the model's suitability for ITO related research: the (1) *aspects of the underlying IT artifact*, (2) *interpersonal aspects of the exchange*, and (3) *dynamic aspects of the exchange*. Furthermore, the model of Levine and White (1961) is based on (long-term) interorganizational relationships in general, without a specific focus on project-related aspects of the exchange. On the other hand, ITO engagements are mostly based on particular projects and particular IT artifacts (e.g., systems, specific software), which often require temporary organizational structures, relying on a large amount of interpersonal exchange during the project lifecycle and being temporary by nature. Due to the limited scope of our study, an enhancement of the framework or the development of a new framework for client-vendor relationships in ITO projects requires additional research and empirical evidence. Nevertheless, our study indicates that currently applied models such as the conceptual framework of Levine and White (1961) are not fully sufficient and further theory development of ITO client-vendor relationship models is required. This implication is in line with the recent call for further research on indigenous ITO theories by Lacity et al. (2010).

5.2 Limitations and Future Research

While the identified factor list for developing and maintaining a successful client-vendor relationship in ITO projects enhances our knowledge on ITO in general and the ITO client-vendor relationship in particular, there are some limitations and corresponding future research directions that need to be acknowledged.

First, we need to take into account the low number of interviews used within our study in general and the level of saturation in particular. Due to the exploratory nature of our study, we chose a small number of interviews to conduct an initial identification of success factors for developing and maintaining a successful client-vendor relationship from the vendor's perspective. Based on this approach, we were able to identify a suitable list of factors including descriptions and importance rankings. Nevertheless, due to the small sample size, we cannot assume that the identified factor list is complete or exhaustive. For example, the last interview revealed a total number of 7 new factors, which were not identified in the prior interviews. Hence, further interviews could reveal, to a certain extent, additional important factors.

Second, in addition to the sample size, our results need to be further generalized by incorporating the clients' point of view. The purpose of our study was the identification of factors solely from the vendor's perspective to enhance our knowledge on this particular part of the ITO relationship. Nevertheless, to increase the generalizability of the identified factors for ITO client-vendor relationships in general and to enable a comparison between the client's and vendor's needs, a similar study focusing on clients' needs should be performed.

Third, we need further empirical research to enable sufficient theory development. Therefore, this study is part of an overarching research project on ITO client-vendor relationships. The goal of this research project is the development of a theoretical model and framework for ITO client-vendor relationships and thereby extending our theoretical foundation of this important phenomenon. Based on the study results, we are confident that the identified factors permit a certain degree of generalizability. Nevertheless, to enable sufficient theory development, the generalizability of our results needs to be extended by conducting further empirical research. This includes, for example, multiple case studies to validate the

identified factors in different contextual set-ups (e.g., different cultures, countries) as well as testing and confirmation of the identified factors by practitioners with different backgrounds concerning organization size, culture, and ITO experience.

6 Conclusion

For the very first time, our study provides empirical insights into factors contributing to the development and maintenance of successful ITO relationships from the vendor's point of view. By further using the RepGrid method in the context of ITO for the first time, we were able to generate knowledge based on 40 different ITO projects in a relatively short timeframe and with adequate effort. To the best of our knowledge, there is no study available using PCT and RepGrid in the field of ITO-related research, therefore further enhancing this study's contribution to the body of knowledge. Based on our research design and the nature of the projects used as elements of our research, we are confident that our results have a certain degree of generalizability. When comparing our results with past research on the topic of ITO client-vendor relationship management, we were able to identify several factors which hitherto were not known or considered in academic research, therefore contributing to our body of knowledge. In addition to our theoretical contribution, our study provides guidance for practitioners in terms of developing and maintaining a successful ITO client-vendor relationship, especially by shedding light on relevant factors concerning the setup of the client organization. Furthermore, based on the chosen theoretical lens, our research showed the need for the development of a suitable ITO client-vendor relationship model or framework. Accordingly, our results can be used as a baseline for developing such a model or framework. Therefore, we lay the groundwork for further theory development on ITO client-vendor relationship management with this study, which will be detailed in further research.

References

- ALAGHEHBAND, F. K., RIVARD, S., WU, S. & GOYETTE, S. 2011. An assessment of the use of Transaction Cost Theory in information technology outsourcing. *The Journal of Strategic Information Systems*, 20, 125-138.
- ALAMI, A., WONG, B. & MCBRIDE, T. 2008. Relationship Issues in Global Software Development Enterprises. *Journal of Global Information Technology Management*, 11, 49-68.
- ANG, S. & STRAUB, D. W. 1998. Production and transaction economies and IS outsourcing: a study of the US banking industry. *MIS quarterly*, 535-552.
- CATA, T. & RAGHAVAN, V. V. 2006. Lifecycle of Outsourcing Relationships: A Case Study Investigation1. *Journal of Information Technology Case and Application Research*, 8, 11-26.
- CHATTERJEE, D. & RAVICHANDRAN, T. Inter-organizational information systems research: a critical review and an integrative framework. *System Sciences*, 2004. Proceedings of the 37th Annual Hawaii International Conference on, 2004. IEEE, 10 pp.
- CHENGXUN, T. & SIEW KIEN, S. 2006. Managing Flexibility in Outsourcing. *Journal of the Association for Information Systems*, 7, 179-205.
- DEY, D., FAN, M. & ZHANG, C. 2010. Design and Analysis of Contracts for Software Outsourcing. *Information Systems Research*, 21, 93-114,203,205.
- DIBBERN, J., GOLES, T., HIRSCHHEIM, R. & JAYATILAKA, B. 2004. Information systems outsourcing: a survey and analysis of the literature. *ACM SIGMIS Database*, 35, 6-102.
- FRANELLA, F., BELL, R. & BANNISTER, D. 2004. *A Manual for Repertory Grid Technique*, Wiley.
- GARTNER, I. 2014. Forecast Analysis: IT Outsourcing, Worldwide, 4Q13 Update. *IT Outsourcing Worldwide*. Stamford, USA: Gartner.
- GOLES, T. & CHIN, W. W. 2005. Information systems outsourcing relationship factors: detailed conceptualization and initial evidence. *ACM SIGMIS Database*, 36, 47-67.
- GONZALEZ, R., GASCO, J. & LLOPIS, J. 2005. Information systems outsourcing success factors: a review and some results. *Information Management & Computer Security*, 13, 399-418.
- GREGORY, R. W., BECK, R. & KEIL, M. 2013. Control Balancing in Information Systems Development Offshoring Projects. *MIS Quarterly*, 37, 1211-A4.
- GUEST, G., BUNCE, A. & JOHNSON, L. 2006. How many interviews are enough? An experiment with data saturation and variability. *Field methods*, 18, 59-82.
- GULATI, R. 1998. Alliances and networks. *Strategic management journal*, 19, 293-317.
- HALL, J. A. & LIEDTKA, S. L. 2005. Financial Performance, CEO Compensation, and Large-Scale Information Technology Outsourcing Decisions. *Journal of Management Information Systems*, 22, 193-221.
- HORVÁTH 2014. IT Outsourcing Satisfaction Survey 2014.
- HUNTER, M. G. 1997. The use of RepGrids to gather interview data about information systems analysts. *Information systems journal*, 7, 67-81.
- JIN KIM, H., SHIN, B. & LEE, H. 2013. The mediating role of psychological contract breach in IS outsourcing: inter-firm governance perspective. *European Journal of Information Systems*, 22, 529-547.

- KAISER, J. & BUXMANN, P. 2012. Organizational design of IT supplier relationship management: a multiple case study of five client companies. *Journal of Information Technology*, 27, 57-73.
- KELLY, G. 1991. *The psychology of personal constructs*.
- KING, W. R. & TORKZADEH, G. 2008. Information Systems Offshoring: Research Status and Issues. *MIS Quarterly*, 32, 205-225.
- KOH, C., ANG, S. & STRAUB, D. W. 2004. IT Outsourcing Success: A Psychological Contract Perspective. *Information Systems Research*, 15, 356-373.
- LACITY, M. C., KHAN, S., YAN, A. & WILLCOCKS, L. P. 2010. A review of the IT outsourcing empirical literature and future research directions. *Journal of Information Technology*, 25, 395-433.
- LAHIRI, S. & KEDIA, B. L. 2011. Co-evolution of institutional and organizational factors in explaining offshore outsourcing. *International Business Review*, 20, 252-263.
- LANDIS, J. R. & KOCH, G. G. 1977. The measurement of observer agreement for categorical data. *biometrics*, 159-174.
- LANDIS, K., MISHRA, S. & PORRELLO, K. 2005. Calling a Change in the Outsourcing Market: The Realities for the World's Largest Organizations. 2005. *Deloitte Consulting Report*.
- LANGER, N., SLAUGHTER, S. A. & MUKHOPADHYAY, T. 2014. Project Managers' Practical Intelligence and Project Performance in Software Offshore Outsourcing: A Field Study. *Information Systems Research*, 25, 364-384.
- LEVINA, N. & ROSS, J. W. 2003. From the vendor's perspective: exploring the value proposition in information technology outsourcing. *MIS quarterly*, 331-364.
- LEVINE, S. & WHITE, P. E. 1961. Exchange as a conceptual framework for the study of interorganizational relationships. *Administrative science quarterly*, 583-601.
- LEVY, Y. & ELLIS, T. J. 2006. A Systems Approach to Conduct an Effective Literature Review in Support of Information Systems Research. *Informing Science*, 9.
- MOYNIHAN, T. 1996. An inventory of personal constructs for information systems project risk researchers. *Journal of information technology*, 11, 359-371.
- PANNIRSELVAM, G. P. & MADUPALLI, R. 2011. Antecedents of Project Success: The Perception of Vendor Employees. *The Quality Management Journal*, 18, 7-20.
- PATTON, M. 1990. Purposeful sampling. *Qualitative Evaluation and Research Methods*. London: Sage, 169-183.
- POSTON, R. S., SIMON, J. C. & JAIN, R. 2010. Client Communication Practices in Managing Relationships with Offshore Vendors of Software Testing Services. *Communications of the Association for Information Systems*, 27.
- RAI, A., MARUPING, L. M. & VENKATESH, V. 2009. Offshore Information Systems Project Success: The Role of Social Embeddedness and Cultural Characteristics. *MIS Quarterly*, 33, 617-A7.
- SCHMIDT, N., MÜLLER, M. & ROSENKRANZ, C. 2015. Identifying the Giants: A Social Network Analysis of the Literature on Information Technology Outsourcing Relationships. *Proceedings of the European Conference on Information Systems (ECIS) 2015, Münster, Germany (in press)*.

- SCHRADER, S. 1991. Informal technology transfer between firms: Cooperation through information trading. *Research policy*, 20, 153-170.
- SEDDON, P. B., CULLEN, S. & WILLCOCKS, L. P. 2007. Does Domberger's theory of 'The Contracting Organization' explain why organizations outsource IT and the levels of satisfaction achieved? *European Journal of Information Systems*, 16, 237-253.
- SIRMON, D. G., HITT, M. A. & IRELAND, R. D. 2007. Managing Firm Resources in Dynamic Environments to Create Value: Looking Inside the Black Box. *Academy of Management Review*, 32, 273-292.
- SØDERBERG, A.-M., KRISHNA, S. & BJØRN, P. 2013. Global Software Development: Commitment, Trust and Cultural Sensitivity in Strategic Partnerships. *Journal of International Management*, 19, 347-361.
- TAN, F. B. & HUNTER, M. G. 2002. The repertory grid technique: A method for the study of cognition in information systems. *Mis Quarterly*, 39-57.
- TEO, T. S. H. & BHATTACHERJEE, A. 2014. Knowledge transfer and utilization in IT outsourcing partnerships: A preliminary model of antecedents and outcomes. *Information & Management*, 51, 177.
- WILLCOCKS, L. P. & KERN, T. 1998. IT outsourcing as strategic partnering: the case of the UK Inland Revenue. *European Journal of Information Systems*, 7, 29-45.
- XU, P. & YAO, Y. 2013. Knowledge Sharing in Offshore Software Development: A Vendor Perspective. *Journal of Global Information Technology Management*, 16, 58-84.