GOVERNANCE IN OUTSOURCING RELATIONSHIPS –
THE ROLE OF INFORMATION TECHNOLOGIES

Research-in-Progress

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Abstract

This study investigates the role of information technologies (IT) in the governance of IT outsourcing relationships. Managers rely on contractual and relational governance to manage IT outsourcing projects. In addition, they use dedicated IT solutions to make the governance more efficient. While the role of IT in supporting the two governance approaches is appreciated in practice, it has not yet been comprehensively addressed in research. Through an exploratory case study comprising of five client and five vendor companies, this study investigates the impact of IT on contractual and relational governance. Our findings suggest that IT helps to support contractual governance in general and specific aspects of relational governance. In particular, vendors’ self-control is supported by IT. Further, we outline the facilitating role of IT to create transparency as a possible antecedent of trust.

Keywords: Contractual Governance, Relational Governance, IT Outsourcing, Formal Control, Informal Control, IT Outsourcing Governance Tools
Introduction

Within the established research area on information technology outsourcing (ITO), the efficient governance of ITO projects has become an emerging theme. Reasons for this focus on governance relate to the increased complexity of ITO projects due to the trend to outsource to multiple providers, and/or the pressures arising from high failure rates. Prior research on ITO governance has found contractual and relational governance to be the two main determinants to affect IT outsourcing success (cf., Lacity et al. 2009). In this study, we use contractual governance in a broader sense, as governance based on a contract. Thus, it comprises the contract itself as well as formal control. Formal control is the monitoring of whether contractual goals are achieved and processes followed. Similarly, we use relational governance as governance based on trust. Hence, beside trust itself, we see informal controls as the execution of relational governance (cf., Huber et al. 2011).

Recent research has acknowledged the increasing use of information technologies supporting contractual and relational governance (e.g., Gallivan and Depledge 2003; Mani et al. 2010). There are specialized technologies for different purposes, e.g., to monitor system availability, to manage contracts, or to improve the coordination and collaboration of the relationship. Further, there are integrated solutions, i.e., dedicated ITO governance tools, comprising functionalities to support the whole outsourcing lifecycle from the decision to outsource to contract termination (Hirschheim et al. 2009). Mani et al. (2010) have emphasized the role of IT to support contractual governance in helping “monitor and manage the performance of the provider” (Mani et al. 2010, p. 46). Besides the supporting role of IT for contractual governance, Gallivan and Depledge (2003) have found positive effects on relational governance. These are attributed to the notion that IT has the potential to reinforce trust and enable mutual information sharing and open communication (Gallivan and Depledge 2003).

Although it seems important for managers to understand the impact of IT on contractual and relational governance, research has not yet investigated the role of IT in the governance of ITO projects (Schwarz et al. 2009). Hence, in this study, we seek to answer the research question of how organizations rely on IT to govern ITO relationships. For this purpose, we explore the role of IT in five client and five vendor companies.

Our study contributes to research and practice by providing insight into the ways IT impacts contractual and relational governance in ITO projects. First, we demonstrate that both aspects of contractual governance are supported by IT outsourcing governance tools, i.e., the contract management itself as well as the monitoring of contractually agreed outcomes and behaviors. Second, we found IT as an amplifier for relational governance in the sense of improved information exchange or self-management opportunities for the vendor. Our findings show that IT tools establish self-control in vendor organizations. Finally, we found no evidence that trust itself is directly supported by IT outsourcing governance tools. Instead, IT enables higher degrees of transparency; and transparency might affect the level of trust between client and vendor.

Theoretical Foundation

In our study, we investigate the impact of IT on the two different governance mechanisms used to manage ITO outsourcing relationships, i.e., contractual and relational governance (Figure 1).

Contractual governance is theoretically based on transaction cost economics (TCE), stating that contractual safeguards mitigate exchange hazards (Williamson 1981). In this context, the contract is represented by contractual elements (Goo et al. 2009), contractual complexity (Poppo and Zenger 2002), or contract type (Gopal and Sivaramakrishnan 2008). These conceptualizations focus on the contract itself while neglecting its role in the day-to-day governance. Thus, to account for this important aspect of governance, we also include the concept of formal control, stemming from control theory (Ouchi 1979). In our understanding of contractual governance, formal control is derived from the contract. Formal control comprises formal outcome and formal behavior control (Kirsch 1996). Outcome control entails monitoring to determine whether contractually agreed goals and outcomes are met by the controller. Behavior control relates to whether the controller follows contractually agreed upon processes. For a
more detailed discussion on this conceptualization of contractual governance see Huber et al. (2011).

Relational governance is based on social exchange theory (Macneil 1980), suggesting that governance may also emerge from shared norms and values developed in social relationships (Poppo and Zenger 2002). As trust is "viewed as a necessary condition for relational governance" (Goo et al. 2009, p. 126) we consider it as the basis of relational governance. Based on a trusted relationship, relational governance is often referred to as the social processes which help to guide desired behavior (Goo et al. 2009; Poppo and Zenger 2002). As such, we conceptualize relational governance as trust and informal control. Informal control comprises both clan and self-control (Kirsch 1996; Kirsch 1997). While clan controls are exercised within groups of peers by enforcing goals which are not contractually agreed on, self-control in the context of IT outsourcing entails controls executed by the vendor himself. For a more detailed discussion on this conceptualization of contractual governance see Huber et al. (2011).

Information technologies in the context of ITO have different functionalities. To narrow down the scope for this study, we use a common distinction to differentiate between dedicated ITO governance tools and tools for infrastructure management (Tisnovsky and Banerjee 2007). Infrastructure management tools are not in the focus of this study. Those tools are commonly used by the vendor's operational team to monitor the technical infrastructure, i.e., whether all servers are up and running. The focus of this study is on dedicated ITO governance and comparable tools. Those tools deliver information for management level (e.g., service level manager, CIO, or sourcing manager) needed to manage the outsourcing relationship. Hence, these systems condense technical information (gathered by infrastructure management tools) to reflect the status and progress of an ITO project. These tools may be used by clients to govern their vendor as well as from vendors to deliver reports to their clients. Representatives of dedicated ITO governance tools are: Enlighta Govern, CA's Business Service Insight, EquaSiis Enterprise, or Janeeva Assurance. These solutions reflect an emerging market of tools designed to support the lifecycle of ITO projects, including relationship management and contractual governance issues (cf., Hirschheim and George 2007; Hirschheim et al. 2009; IAOP 2010; Leimeister et al. 2010). Moreover, besides dedicated ITO governance tools, there are many self-developed and composed tools. If composed, they consist of several commercial tools (e.g., Microsoft’s SharePoint or Atlassian’s JIRA) used together, comprising different functionalities, such as group support, contract management, and incident management functionality. Incident management systems are typically used by vendor companies to document incidents, i.e., service or change requests and errors, as reported by their clients. Then, a service desk employee may either handle the incident or transfer it to the first or second level support. Hence, the focus of this study is on dedicated ITO governance tools and self-developed or composed systems providing a comparable functionality.

![Figure 1. Possible effects of IT on ITO governance](image)

The effects of IT on contractual and relational governance have yet not been investigated within the ITO context. Ambivalent relationships between IT and contractual and relational governance have been suggested in prior research (Gallivan and Depledge 2003). Gallivan and Depledge (2003) conclude that IT may be used in two different ways for governance of interorganizational relationships; either for monitoring, and / or for open information exchange facilitating a shared understanding and trust. More
specifically, IT may contribute to successful contractual governance by enabling the automated monitoring of contractually agreed performance measures (Gallivan and Depledge 2003; Hirschheim et al. 2009). At the same time, IT may have a negative impact on relational governance, as its use may signal distrust (Gallivan and Depledge 2003).

**Research Method**

To examine the role of IT in IT outsourcing governance an exploratory case study research design (Yin 2009) was chosen. This research design seemed particularly appropriate to investigate the research question of how IT is used in ITO relationships and how it influences the role of established governance mechanisms.

Tools used in ITO relationships are introduced either by the client or by the vendor. Hence, we interviewed key informants in client and vendor companies. Data was collected from November 2011 to April 2012. As there is little research on the use of IT to govern ITO relationships and the degree of diffusion of dedicated ITO governance tools is still low (Hirschheim et al. 2009), we were not able to focus on a certain tool. Hence, we remained open to explore the use of IT in different client and vendor companies. We interviewed ten key informants (i.e., CIOs and executive managers) at five ITO client and five ITO vendor companies and gained insight into how ITO projects are governed. Table 1 provides an overview of the ten organizations interviewed and the IT tools mentioned within the interviews. The interviews followed semi-structured interview guidelines (excerpts are provided in the Appendix), were conducted face-to-face or by phone, and lasted about 45 minutes on average.

We analyzed the data following a two-step approach. First, we coded the six key concepts (contract, formal outcome control, formal behavior control, trust, informal clan control, and informal self-control) within our interviews by using NVIVO 9.2 software. Second, we analyzed how the use of IT was related to these concepts.

<table>
<thead>
<tr>
<th>Description of Client / Vendor Company</th>
<th>IT tools used to govern the ITO relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outsourcing Client 1 (C1)</strong></td>
<td>Large energy company having outsourced network and workplace services as well as servers and mainframes to several providers. Self-developed tools for incident management and SLA monitoring, based on Lotus Notes databases and Microsoft Office tools</td>
</tr>
<tr>
<td><strong>Outsourcing Client 2 (C2)</strong></td>
<td>Large telecommunication company having outsourced network and workplace services to three large providers. Self-developed tools for contract, incident and performance management, based on Microsoft SharePoint</td>
</tr>
<tr>
<td><strong>Outsourcing Client 3 (C3)</strong></td>
<td>European branch of a leading flower delivery service having outsourced application hosting and data centre to one provider. Self-developed and commercial tools for reporting, monitoring, and information exchange</td>
</tr>
<tr>
<td><strong>Outsourcing Client 4 (C4)</strong></td>
<td>Leading company in the area of road construction having outsourced workplace services and data centre to one provider. Self-developed cost allocation tool including SLA monitoring; Shared platform (Microsoft SharePoint); SAP for billing and quantitative analysis; incident management tool (ServiceNow)</td>
</tr>
<tr>
<td><strong>Outsourcing Client 5 (C5)</strong></td>
<td>The leading transport and logistics company within its country having outsourced workplace services and data centre to several providers. SAP for billing and quantitative analysis; iET service management solution including incident, change, and problem management functionality; Microsoft SharePoint and other collaboration suites</td>
</tr>
<tr>
<td><strong>Outsourcing Vendor (V1)</strong></td>
<td>This is a captive service provider of Outsourcing Client 5 providing complex technical infrastructure services to Client 5. Business Service Insight from CA</td>
</tr>
</tbody>
</table>
Outsourcing Vendor (V2) | A full-service outsourcing provider delivering network, workplace, cloud services etc. to various clients. The service provider is one of the largest in its country. | Business Service Insight from CA

Outsourcing Vendor (V3) | A service provider employing more than 2,000 employees, focused on SAP solutions. Its services include SAP consulting, system integration, maintenance, and operations. | SAP Solution Manager and self-developed tools, including contract management, SLA tracking as well as incident, change, and problem management functionality

Outsourcing Vendor (V4) | A small service provider specialized in operating infrastructure data centres. Based on this infrastructure it offers cloud computing services such as infrastructure-as-a-service (IaaS). | Self-developed service management tool, incl. incident, change and problem management; SAP for contract management

Outsourcing Vendor (V5) | Small service provider specialised on application change services. It offers software packaging and virtualization services to implement software in organizations worldwide. | Self-developed workflow-tool based on JIRA

## Results

### The Effects of Tool Usage on Contractual Governance (cf., Figure 1 a, b, c)

Some of the tools used by our interviewees provided functionality complementing the contract itself (see Table 1 and Table 2). This contract management functionality enabled client and vendor companies to access their contracts, to store templates, and to keep contact persons and dates updated. For instance, the tool “represents the contracts, the persons, playing a role for contract management, both at client and at our side, incl. his/her function or membership in a certain governance board” (V3).

Most client and vendor companies reported about using the tools for monitoring contractually agreed outcomes, i.e., formal outcome control (see Table 2). Formal outcome control is exercised by using tools, “because, if the providers don’t meet the SLAs we will get credits from them. So we did implement recently what we call an SLA tracker” (C1). In the same vein the other clients argued, e.g., “we have [a tool] that tracks and manages […] deliverables” (C2).

Tools are also used to observe vendor’s behavior, i.e., exercise of formal behavior control (see Table 2). One outsourcing vendor explained that “there are these workflow-based tasks [and with our] web-based application […] we can track each process step, and so does the client” (V5). The tools were also often used to manage and track the formal processes for incident and problem management. One client explained that they have a tool “that we use for issue and dispute resolution process. [It] helps us logging the issues [and] tracking metrics surrounding those issues” (C1).

### The Effects of Tool Usage on Relational Governance (cf., Figure 1 d, e, f)

Perhaps surprisingly, no direct impact of IT on trust was found in our data (see Table 2). While the interviewees pointed out the importance of a good relationship, as “outsourcing is always about trust and cooperation” (V3), they also explained that “the real collaboration comes when you are in a room or a hall with your supplier. A tool can’t help you here […] What is more useful, is face-to-face meetings” (C2). Finally, C3 summarizes “in many matters, the face-to-face contact is the most important […] - not via a tool”. Instead of trust, we found the impact of IT in increasing transparency (see Table 2). As an example, different interviewees from client and vendor side explained the role of tools to open the black box of what the vendor does. One of the interviewed outsourcing vendors adapted commercial software in such a way that “via web fronted, the client is able to understand, what we are doing the whole day” (V5). This enables a shared understanding between client and vendor, “as based on this transparency, the client...”
comes back for further inquiries” (V5) about the why, what, and how of service delivery. Moreover, it was reported that transparency opens the solution space for “informal agreements” (C3).

Our data provide evidence that informal clan control is well supported by IT (see Table 2). For instance, a client described that “we have a shared platform […] this is the basis for meetings or for the almost daily interaction on service manager level” (C4). Further, incident management tools were used as communication platform. Based on these incident management tools, new task-related demands and requirements are communicated. Thus, these tools deal with the ongoing communication needs between client and vendor, as “there is always some part of the relationship between the outsourcers that is evolving. You need to be able to capture those changes or issues and manage them” (C2). Those are not necessarily prespecified in the contract and their fulfillment also depends on shared values. One of the service providers explained that they use their tool “to describe specific [client] situations. These can include ongoing projects about which we should know, such as ‘in this project we have anomalies, it is not off-the-shelf operations, we need to consider this and that’” (V3). Hence, the tool is used to develop a mutual understanding and shared norms.

As some of the tools are initiated by the vendor, they show their engagement in self-monitoring and self-evaluation (see Table 2). One service provider explained his motivation to develop an IT solution for self-control. “We use the tool as a control center and we had the ambition to integrate system monitoring, backup monitoring, interface monitoring, and client-specific tools” (V3). Hence, “it is clearly a tool, to increase transparency, for the client but also for the in-house operations” (V3). Similarly, another vendor explained: “we have parameterized [the tool] - based on our needs […] thus, we can track each process from beginning […] to test” (V5).

The following table provides an overview of the governance mechanisms supported within the ten cases.

<table>
<thead>
<tr>
<th>Governance Concepts</th>
<th>Typical Tool Support Reported</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>V1</th>
<th>V2</th>
<th>V3</th>
<th>V4</th>
<th>V5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract</td>
<td>Contract itself, its details, elements, type etc. (Goo et al. 2009; Lacity et al. 2009).</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Formal Outcome Control</td>
<td>Controlling pre-specified and measureable outcomes (Kirsch 1996; Kirsch 1997).</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Formal Behavior Control</td>
<td>Controlling pre-specified processes or behaviors (Kirsch 1996; Kirsch 1997).</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Trust</td>
<td>The belief that a controllee will perform future actions in a particular way (Goo et al. 2009).</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transparency (not part of the conceptualization of relational governance)</td>
<td>Tools increase transparency. Thus, the controller sees what the controllee does.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Informal
Clan
Control
Goals are pursuit which are not prespecified in terms of behavior or outcome and often evolve during the project (Kirsch 1996; Kirsch 1997).

Tools enable communication and information exchange. This helps to develop a shared understanding and enables informal agreements.

Informal
Self-
Control
Controllees set their own goals and follow self-defined processes and engage in monitoring themselves (Kirsch 1996; Kirsch 1997).

Based on the tool functionalities individual ambitions to achieve self-set goals are promoted.

Discussion and Contribution

In this study, we sought to gain insights into the effects of how IT supports the established mechanisms, i.e., contractual and relational governance, to manage IT outsourcing projects.

Our findings with regard to relational governance provide two new insights. First, a direct causal effect between the use of IT and trust was not reported or observed. Hence, it could be argued that using IT for contractual governance is a signal of distrust (Gallivan and Depledge 2003). However, supporting the “counterintuitive examples” given by the same study (Gallivan and Depledge 2003, p. 179), IT offered an indirect effect on trust, by increasing transparency about what the vendor is doing. Nevertheless, the role of transparency is controversial. While Durkee states that “transparency is one of the first steps to developing trust in a relationship” (Durkee 2010, p. 68), others are more critical about the relationship between transparency and trust (Pirson and Malhotra 2011).

Second, we have found support for the facilitating role of ITO governance tools in respect to self-control. As our study included also interviews with vendors, we were able to capture this impact, thereby adding to the findings of Choudhury and Sabherwal (2003). We conclude that clients insisting on the use of IT outsourcing governance tools within the vendor company, may promote vendor’s self-control. This offers an opportunity for managers to make the tool usage a contractual obligation. In addition, this finding may also stimulate future research to investigate self-control in the ITO context again, as it has been neglected by recent studies in the IT outsourcing context (Tiwana 2010).

We also contribute to the understanding of the development and exercise of clan control. For instance, Chua et al. (2012) investigated the enactment of clan control. In light of the findings of our study, we suggest that the three aspect of clan building, i.e., structural, cognitive, and relational ties (Chua et al. 2012; Nahapiet and Ghoshal 1998), may be well supported by IT outsourcing governance tools. As such, ITO governance tools, may help to remove or overcome “physical and organizational obstacles that impede interactions” (Chua et al. 2012, p. 594) and, hence, may help to build the foundation for clan control.

The supportive effects of IT on contractual governance (Gallivan and Depledge 2003; Hirschheim et al. 2009; Mani et al. 2010) have been supported in this study. First, the management of the contract itself is promoted by governance tools in keeping contract information easily accessible and up to date. Second, governance tools enable efficient monitoring of contractually agreed outcomes (e.g., service levels) and behavior by tracking whether contractually agreed processes are followed (e.g., change processes).

Limitations and Research Outlook

In this research in progress, we have conducted exploratory interviews to gather insights from IT outsourcing client and vendors. We are aware that the number of interviews in total and per case warns us
to be careful in drawing conclusions. Hence, the findings of this study shall be further examined by future research.

A topic not yet investigated within this research in progress is the impact of IT on the relationship between contractual and relational governance, i.e., whether they are complements or substitutes. So far, we focused on the impact of IT on contractual or relational governance. An in-depth case study investigating the role of IT and its impact on the relationship between contractual and relational governance over time would be a promising avenue for future research, as this relationship is hypothesized to change over time (Gallivan and Depledge 2003; Huber et al. 2011).

Moreover, as the tool market is emerging (Hirschheim et al. 2009), we suggest to investigate the differences in tool functionality. A dedicated and integrated IT outsourcing governance tool might be more efficient in supporting various aspects of governance than a self-developed or composed system.

Finally, quantitative measures should be developed to investigate the impact of tool usage on ITO performance. A promising moderator in such a study might be the task being outsourced (i.e., complex software development projects vs. highly standardized infrastructure-as-a-service projects).

References


Appendix

Excerpts from the semi-structured interview guideline used for IT outsourcing clients.

**Primary Question 1: How did you decide to use a tool?**

- What did you use before for managing outsourcing arrangements? OR Did you previously have another tool in-house for managing ITO arrangements? AND Are you currently using other tools within this ITO arrangement (e.g., incident management solutions or MS Excel spreadsheets ...)?
- Was the use of the tool included as part of the contractual agreement between you and the service provider(s)? OR was it implemented as a reaction on a certain event (e.g. bad performance) OR was it already used by your company before, ...?
- If it was your organization’s decision to use the tool, how willing was the service provider(s) to use it?

**Primary Question 2: Have your expectations regarding the tool been realized?**

- Who uses the tool the most within your organization (hierarchy levels)?
- How often and how regularly is the tool used?
- How is the tool used in the governance of the outsourcing arrangement(s) – performance management, contractual administration, financial management, system monitoring, ...?
- Which influence had the tool on other formal agreements (e.g. contract or guidelines)?
- Which influence had the tool on the relationship in terms of trust, informal communication and collaboration?
- What are the positive / negative comments that you have had on the use of the tool?