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Gregory Vial
gregory.vial@hec.ca

Suzanne Rivard
suzanne.rivard@hec.ca

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**Gregory Vial**
HEC Montreal
gregory.vial@hec.ca

**Suzanne Rivard**
HEC Montreal
suzanne.rivard@hec.ca

**ABSTRACT**

This study examines the role of differences between parties involved in outsourced information systems (OISD) projects, focusing on 1) the mechanisms vendors use to manage those differences; and 2) the long term impacts of those mechanisms. Using data from a revelatory case study, we anchor our theorizing in institutional theory to develop three main propositions emphasizing 1) the role of instances of conflicting institutional demands in OISD projects; 2) the relevance of the logics driving the enactment of institutionalized practices to explain how vendors respond to those instances; and 3) the ability for those responses to trigger a process of institutional change. Offering a comprehensive explanation of the management of differences in OISD projects, our work has implications for research and practice.

**Keywords**

Outsourced information systems development, outsourced information systems project management, institutional theory, conflicting institutional demands, strategic responses, institutional scripts

**INTRODUCTION**

The successful delivery of a software artifact requires the management of key aspects of information systems development (ISD), such as coordination and communication (e.g., Faraj and Sproull 2000). While it has been observed that ISD projects are complex and uncertain (Avison and Fitzgerald 2006), outsourced ISD (OISD) projects are even more challenging because they involve the management of an ISD project across organizational boundaries and literature on the topic has highlighted differences between parties as important sources of difficulties in those projects. For example, differences in national cultures (Rai et al. 2009) and time zones (Nicholson and Sahay 2001) can hinder coordination and communication, two key areas of project management (Project Management Institute 2013). Parties may also experience differences in their work practices (Gregory et al. 2009) or organizational cultures (Herbsleb et al. 2005). When those differences are not managed properly, they can cause significant challenges and have severe consequences on the execution of the project or its outcome (e.g., Natovich 2003).

Building on those insights, our work has three key motivations. First, because the literature has focused predominantly on the concerns and issues experienced by clients (Xu and Yao 2013) we still know little about how differences between parties in OISD projects are experienced and managed by vendors. The few studies that have taken a vendor's view (e.g.,Gopal et al. 2011; Islam et al. 2009; Kannabiran and Sankaran 2011; Sabherwal 2003; Xu and Yao 2013) have emphasized the importance of the relational aspect (e.g., knowledge sharing practices) of OISD projects. We argue that this point is especially relevant because traditionally, vendors are not the ones actively managing the project.

Second, the theoretical perspectives traditionally used in OISD research – e.g., transaction cost theory (Dibbern et al. 2008) or control (Choudhury and Sabherwal 2003) – focus on mechanisms clients use to *prevent* issues from occurring during an OISD project, such as written contracts and contractual negotiations. Notwithstanding, it has been argued that "reliance on the legal contract alone is insufficient, however, given the complexities of real-life outsourcing arrangements" (Koh et al. 2004:358). In line with recent works on OISD (Beck 2014; Gregory et al. 2009; Jain et al. 2011), we argue that the relational elements present *during* the execution of OISD projects are important to explain the unfolding of OISD projects and improve our ability to manage those projects.

Third, differences are traditionally conceptualized as undesirable occurrences that should be prevented, in line with arguments for a prescriptive view of project management. While empirical evidence provides ample support for this assertion, we argue that parties may also benefit from differences. Some studies have hinted at this possibility by looking at OISD projects as platforms where parties engage into a sense-making process during the course of a project. For example, Gregory et al. (2009) have shown how parties can build a negotiated culture that bridges their differences to improve collaboration. However, little is known on those experiences and on their impact over the long run.

Building on these observations, we adopted institutional theory to study, from the perspective of the vendor, two research questions:

1. How is a difference between parties in an OISD project managed by a vendor?
2. What are the long term impacts of the mechanisms used by vendors to manage that difference?

## THEORETICAL BACKGROUND

Institutional theory builds on the notion of institution, defined as "a social order or pattern that attained a certain state of property" (Jepperson 1991:145). To explain actors' compliance with prescribed patterns of behaviors, institutional theory emphasizes the role of legitimacy, defined as a "generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions" (Suchman 1995:574). Institutional theory assumes that ongoing compliance helps to maintain the legitimacy of an institution while over time, new patterns may become *institutionalized* as their legitimacy increases.

While institutional theory and its most current instantiation, neo-institutionalism, have emerged from the field of sociology, it has been used in many disciplines, including IS. For instance, Mignerat and Rivard (2012) studied the institutionalization of project management practices in IS. Their work highlights the legitimacy that practices gain over time once they have "acquired the status of norms or quasi-rules" (p. 126) and become taken for granted. Other works have used institutional theory to study phenomena such as technology adoption (Teo et al. 2003) or the decision to outsource IT services (Ang and Cummings 1997).

It has been argued that compliance with an institution results from one of three logics or *institutional pillars* (Scott 2008). Under a *regulative* pillar, compliance is enforced via penalties and sanctions (e.g., laws). Under a *normative* pillar, compliance results from a series of values and norms that specify: 1) what must be done; and 2) how it should be done. Under a *cultural-cognitive* pillar, compliance is built on the existence of a common frame of reference among actors. While institutional pillars are conceptualized independently from one another, the severity of the sanctions associated with a lack of compliance varies. For instance, under a regulative pillar, compliance is enforced through the fear of sanctions. Under a cultural-cognitive pillar, it is associated with a sense of moral obligation.

In institutional theory, *carriers* play an important role as virtual and physical objects that support compliance and provide a means to diffuse institutions. For Scott (2008), symbolic systems, relational systems, routines, and artifacts are all institutional carriers that take on different shapes depending on the institutional pillar with which they are associated. While all four types of carriers are relevant, it has been argued that artifacts are especially important in the context of research involving technology (Scott 2008:84). In line with this view, we propose that artifacts act as external representations of the demands placed by institutions. For example, in OISD, a client may send development standards to a vendor in order for them to produce software code that complies with those standards.

Notwithstanding the legitimacy of institutions and the role of the carriers that support them, organizations are often in a position where they face demands from multiple institutions (Kraatz and Block 2008; Pache and Santos 2010; Thornton et al. 2012). Indeed, it has been argued that *institutional pluralism* – a situation where an organization embodies multiple, concurrent logics – creates ambiguities for actors whose compliance with one institution may be done at the expense of another. While research has noted the existence of such *conflicting institutional demands*, there is still little research explaining how actors respond to them or on the consequences of those responses.

Toward that end, Pache and Santos (2010) have used the concept of *strategic responses* proposed by Oliver (1991) – in the context of demands from a single institution – to define responses actors may choose to enact when faced with

conflicting institutional demands (see Table 1). These responses have been useful in a variety of settings, such as transnational fields (Marano and Kostova 2016).

| Strategic response (Oliver 1991) | Definition (Pache and Santos 2010) |
|---|---|
| Acquiescence | "Adoption of arrangements required by external institutional constituents" (p. 462) |
| Compromise | "Attempt by organizations to achieve partial conformity with all institutional expectations through the mild alteration of the demands, the mild alteration of the responses, or through a combination of the two" (p. 462) |
| Avoidance | "Attempt by organizations to preclude the necessity to conform to institutional pressures of to circumvent the conditions that make this conformity necessary" (p. 462) |
| Defiance | "Explicit rejection of at least one of the institutional demands in an attempt to actively remove the source of contradiction" (p. 463) |
| Manipulation | "Active attempt to alter the content of institutional requirements and to influence their promoters" (p. 463) |

**Table 1. Strategic Responses to Institutional Pressure**

Institutions are conceptualized as stable entities, evolving slowly over long periods of time (Oliver 1992), often decades (Davis et al. 1994). Notwithstanding, it has been argued that institutions are relative rather than absolute (Jepperson 1991). In line with this view, Barley and Tolbert (1997) have proposed that institutional scripts, defined as "observable, recurrent activities and patterns of interaction characteristic of a particular setting" (p. 96), provide a means to observe the evolution of institutions over shorter periods as they go through four recursive phases, as illustrated in Figure 1.
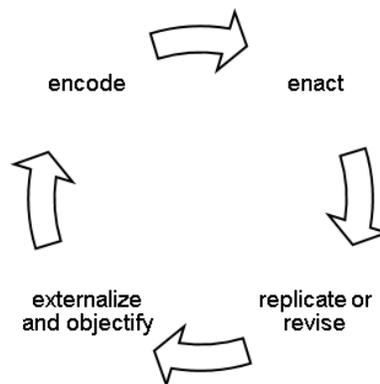


**Figure 1. The Evolution of Institutional Scripts** (adapted from Barley and Tolbert:101)

In the first phase, institutionalized practices are *encoded* into scripts that may be supported by artifacts (e.g., manuals, software tools). In the second phase, actors *enact* those encoded scripts. In the third phase, actors *replicate or revise* scripts, putting the legitimacy of the institution they support into question. In the fourth phase, the revised patterns become *externalized and objectified* as their legitimacy increases. This four-phase process then repeats itself on the basis of the revised institutional scripts.

We propose five arguments to support the use of institutional theory to inform our research questions. First, institutionalized practices are taken for granted by parties and are therefore likely to be a source of conflict during the course of an OISD project. Second, institutionalized practices remain close to the everyday actions of individuals involved in ISD. Third, institutional pillars and artifacts provide a conceptual frame to study the logic behind the enactment of a practice as well as the carriers that support it. Fourth, the concepts of conflicting institutional demands and strategic responses account for the fact that parties must often comply with behaviors that conflict with their own, e.g., through contractual obligations. Finally, contextual changes (Barley and Tolbert 1997) or

disturbances to pre-existing patterns (Oliver 1992) have been proposed as instruments of institutional change that have the potential to explain the long term impacts of OISD projects on a vendor's institutionalized practices.

## METHODOLOGY

In line with the exploratory nature of our work, we rely on a revelatory case study (Yin 2013). Although based on a single case, our approach builds on the principles proposed by Eisenhardt (1989) to develop theoretical insight from the analysis of empirical evidence gathered in case studies.

### Case Setting

We selected Postal, a logistics OISD project between Client, a large European service provider with several thousand employees, and Vendor, a small North American software development firm with less than thirty employees. Following a standard contract tendering procedure with multiple offers, Vendor demonstrated its business and technical expertise and was selected by Client. The project lasted six months and included three iterations. At the end of each iteration, Vendor delivered software, as well as technical and functional documentation.

### Data Collection & Data Sources

Data were collected after the completion of Postal using three main sources (see Table 2). First, semi-structured interviews were conducted, with key respondents from Client (face to face) and Vendor (telephone). The interviews followed an interview protocol; they were recorded and transcribed verbatim. Second, project documentation was made available and consulted. Third, email exchanges among developers at Vendor were also consulted. Evidence gathered from the three sources was triangulated and provided key contextual information on the potential for practices to evolve or remain stable at Vendor.

| Source | Vendor | Client |
|---|---|---|
| Interview | President<br>Software architect<br>Senior developer<br>Project manager | Project manager<br>Chief software architect<br>Senior developer (at Vendor during Postal) |
| Documentation | Project management methodology<br>Software development standards | Software development standards<br>Database standards |
| Emails | Email correspondence sent among developers during and after Postal | |

**Table 2. Data Sources**

Each interview initially focused on the roles, practices and processes in place within each respondent's organization. Questions regarding artifacts such as documentation, operating procedures and methodologies were also asked to build an understanding of the practices institutionalized within each organization along with their respective institutional pillars. The interview then focused on practices followed by Vendor while working on Postal. To identify instances of conflicting institutional demands, we asked respondents to isolate *events* where having to perform work in a certain way was perceived as problematic. Respondents were then asked to explain whether those issues were eventually resolved and if so, how. A final set of questions centered on the long term impacts of those issues after the project was completed.

### Data Analysis

The description of everyday, repetitive activities involved in the development of software at Vendor and Client helped us identify institutional scripts in place prior to the project. We used artifacts identified through this process as a means to understand the nature of institutionalized practices. Those pieces of raw data were then put into chains of evidence in the form of tables (see Appendix). We used those chains of evidence to analyze the nature and impacts of the events described by respondents. When those events were consistent with an ambiguity raised by the

need to comply with a practice that was against Vendor's institutionalized practices, we isolated them as instances of conflicting institutional demands. Finally, we analyzed the resolution of those instances and the changes brought to the institutional scripts – if any – initially identified by respondents to study the potential evolution of institutions at Vendor.

**RESULTS**

We focus on three instances of conflicting institutional demands experienced by Vendor; they are summarized in Table 3. None of those instances were considered problematic by Client's employees despite the fact that one of Client's employees was on site at Vendor for the duration of the project. This observation is in line with our previous argument that in an OISD project, a client may not realize – or care – that their requests conflict with the vendor's own practices.

> "His actual role was probably that of a spy, even if within the context of the project that person was supposed to represent Client's standards and the technology that Client was bringing in because Client was bringing […] tools and practices." [President, Vendor]

| Instance | Institutional pillars | Strategic response | Long term impact |
|---|---|---|---|
| Modelling and documentation | Vendor: Normative <br> Client: Normative | Avoidance | Replication of existing scripts |
| Coding standards | Vendor: Cultural-cognitive <br> Client: Normative | Compromise | Revision of existing scripts; coding standards become a normative institution |
| Database coding | Vendor: None <br> Client: Normative | Acquiescence | Encoding of new script and institutionalization of database practices as a normative institution |

**Table 3. Instances of Conflicting Institutional Demands Experienced by Vendor**

**Instance #1: Modelling and Documentation – Avoidance**

The first instance of conflicting institutional demands dealt with the need to provide Client with particular models and pieces of documentation. At Vendor, the building of such models and documentation relied on a *normative* pillar, using specific tools and templates. The contract between Vendor and Client specified that UML models and other forms of documentation such as use case and test cases documents would have to be produced by Vendor. However Vendor did not foresee that the means required to build those models and documents would be problematic. Indeed, Client requested that Vendor use a specific software package, using guidelines designed by Client and all of its other vendors, reflecting the *normative* aspect of this institution at Client.

> "At first we spent a long time doing documentation with [Client's] tool and in the end we realized… we were not using it properly and the tool did not really work the way we thought it did so there was a problem. So in the end we hated the tool because we did not use exactly as we should have." [Software architect, Vendor]

While Vendor understood Client's requirements, they also perceived that Client's tool was inefficient and prevented them from working according to their own habits. Rather than comply with Client's request, Vendor studied the output produced by the tool and created a tool to convert, unbeknownst to Client, their models and documentation formats into the ones required by Client. This *avoidance* strategy helped Vendor conceal their lack of compliance by providing Client with the output they requested without altering their own institutionalized practices.

**Instance #2: Coding Standards – Compromise**

The second instance dealt with Client's requirements for software code. Vendor had, over time, built a series of *de facto* coding standards into its applications. Developers were all developing code in a similar manner although no specific documentation or standards were enforced by an external entity such as a software build system. Vendor relied on a *cultural-cognitive* pillar to enforce its coding standards wherein violations typically had two possible outcomes: 1) developers would call on one another to get the code fixed; or 2) developers would decide not to work on a specific module because of the code's lack of compliance.

> "Generally we have a very high standard of quality. […] We do not draw the picture of a high level standard as such but we follow one that is fairly high." [President, Vendor]

As a large organization involved in several OISD projects, Client's approach to enforce coding standards was based on a *normative* institution. First, there was an extensive amount of written documentation describing coding patterns and standards to follow. Second, Client used software tools to validate the source code against those standards at regular intervals. This strategy was also used in Postal. This eventually created an issue for Vendor in that their coding standards were not in line with Client's, effectively threatening the acceptance of a release regardless of whether it was fully functional.

> "At some point, there was a code audit, and we said wow! We have a lot of code to change. […] In the end, it was not about whether the code was working or not, it was to make sure, again, that the generation of documentation would work properly for [Client]." [Software architect, Vendor]

In this instance, Vendor appealed to Client to defer the validation of coding standards at a later date. This was done to ensure that the current release would be accepted and to minimize rework. To support their request, Vendor showed Client how some of the standards they were enforcing worked *against* the performance of the application. Through these discussions, Client and Vendor worked together to establish a new timeline for the validation of Vendor's code and to relax some of the rules enforced by Client's build system. This *compromise* strategy had two important consequences. First, it allowed Client and Vendor to start a dialogue on the relevance of their respective coding standards. Second, it provided Vendor with a valuable experience on the possibility to normalize their own coding standards. As a result, Vendor revised its practice and implemented the validation of their coding standards within their software development environments.

> "There were certain ways in which we were optimizing code, and in the end we realized it did not pass the audit because we had tried to optimize the code. So… We were able to drop some of the audit by clearly explaining that it was better to do things in a different manner. But for the rest… I myself have kept… with Client's mentality in certain cases because it made sense, it was cleaner." [Software architect, Vendor]

**Instance #3: Database Standards – Acquiescence**

The third instance dealt with the need to build Postal's database using standards specified by Client. At Vendor, the production of database code was traditionally performed in an ad hoc manner by developers. While writing code, they would often have to create new database objects. However, there were no standards for database code at Vendor. As a result, database schemas were often hard to read because there was no pattern governing their creation and evolution. Overall, our data show that there was no institution in place with regards to this aspect of software development at Vendor.

For Client, things were very different. As they did for software code, Client had specific database standards including object naming conventions, standard patterns and other artifacts that supported a *normative* institution. When Vendor started work on Postal, Client provided them with a binder containing more than a hundred pages detailing these standards and explaining how vendors were expected to comply with them.

Interestingly, this instance was less problematic for Vendor. Due to contractual obligations, Vendor *acquiesced* to follow Client's standards. Our data show that compliance during the course of the project provided Vendor with an opportunity to experiment and appreciate those standards. Following the completion of Postal, Vendor decided to retain some of those standards and include them as part of its database development practices. To ensure compliance, Vendor later developed a software artifact that allowed developers to create standard-compliant database code using a simple user interface, thereby making the production of standard-compliant database code a normative institution at Vendor.

> "The database documentation has changed. All naming conventions, foreign keys, everything, all that was backported into our product. […] We now have a scripting tool that we have built to make modifications to the database. […] It validates everything." [Developer, Vendor]

**DISCUSSION**

Adopting a vendor perspective, our research questions focused on 1) the management of differences between parties in OISD projects and 2) the long-term impacts associated with the management of those differences. Our qualitative, revelatory case study provided some important elements of answers to those questions. Below, we reflect on those results to develop theoretical propositions (Eisenhardt 1989).

Consistent with extant research (e.g., Beck 2014), our data show that contractual negotiations have a limited ability to alleviate all the issues that can occur *during* the course of an OISD project. Indeed, some of the most common theoretical perspectives on the topic have relied on written contracts and other forms of control mechanisms to recommend strategies that seek to *anticipate* and *prevent* the occurrence of issues. Notwithstanding, those elements are not sufficient to ensure that differences do not cause issues *during* the course of an OISD project as vendors must enact practices that they have agreed upon during contractual negotiations (Nakatsu and Iacovou 2009). From an institutional perspective, this is especially relevant because institutionalized practices represent patterns of prescribed behaviors that are taken for granted. As a result, parties may not realize that those differences exist.

> Proposition 1: Regardless of contractual negotiations, instances of conflicting institutional demands are likely to occur during the enactment of an institutional script by a vendor, thereby revealing differences with a client's institutionalized practices.

Institutional theory originally envisioned acquiescence as the only response that actors would enact under institutional pressure. However, works have since suggested the ability for actors to enact alternative responses (Oliver 1991), especially in contexts of multiple, concurrent pressures from conflicting institutions (Pache and Santos 2010) and the literature on OISD project management follows this observation. While it may be assumed that vendors will always comply with a client's requests, empirical evidence has shown that there are often conflicts that exist between those requests and a vendor's objectives (Sabherwal 2003). These arguments are supported by our data. Specifically, the institutional pillars supporting institutionalized practices help explain the enactment of a strategic response over another. For instance, regulative institutions and their associated carriers provide the strongest incentive for compliance as they are based on sanctions and penalties, often enforced by external parties (e.g., courts of law). In comparison, cultural-cognitive institutions provide a weaker incentive for compliance because they are based on a shared frame of reference among actors and do not operate based on coercion. This observation leads us to propose that:

> Proposition 2: Institutional pillars provide varying incentives for compliance such that, in an instance of conflicting institutional demand, a vendor is more likely to comply with a regulative institution first, a normative institution second, and a cultural-cognitive institution third.

The definition of the quasi-hierarchy of institutional logics developed in Proposition 2 has important implications in the context of conflicting institutional demands. Our data show that based on whether the logics of the parties' respective institutionalized practices are similar or different, vendors enact different strategic responses. When a vendor and a client's differing institutionalized practices rely on the same institutional pillar, our data show that avoidance appears as a sensible option. We attribute this finding to the fact that in this context, each party sees their own way of working as legitimate and uses the same types of artifacts to enforce compliance. Even if a vendor can acknowledge the need to perform work in a certain manner as per the client's institutions, the legitimacy of their own institutions exerts a stronger pressure for compliance, challenging the assumption that vendors will always comply with clients' requests.

> Proposition 2a: In an instance of conflicting institutional demands, if the institutional pillars driving the enactment of two differing institutionalized practices are the same, a vendor is likely to enact avoidance to maintain compliance with their own institution while pretending to comply with the client's institution.

Conversely, in instances of conflicting institutional demands where the institutional pillars driving the enactment of parties' practices are different, our data show compromise as a viable strategic response for vendors. In this context, compromise allows parties to communicate with one another and decide on the enactment of a practice that partially satisfies the demands exerted by their respective institutions. In line with arguments emphasizing the relational aspects of OISD projects (e.g., Gopal et al. 2011), we argue that compromise provides a means for parties to negotiate a satisfactory outcome such that:

Proposition 2b: In an instance of conflicting institutional demands, if the institutional pillars driving the enactment of two differing institutionalized practices are different such that the client's institutional pillar prevails over the vendor's, a vendor is likely to enact compromise to seek partial compliance with both parties' respective institutions.

In some cases, a vendor's practice may not be institutionalized despite the presence of repetitive patterns of actions. While research on institutional pluralism and conflicting institutional demands acknowledges the ability for actors to comply with an institution at the expense of another, little is known with regards to their actions in cases where there are no legitimate institutions in place. Our data show that in the context of OISD projects, a vendor is likely to comply with the client's institution. This is consistent with traditional arguments on the topic asserting that a vendor performs work as per a client's requests. However, the institutional lens offers a complementary explanation that can help trace a vendor's selection of acquiescence over other available strategic responses. The lack of institutionalized practice for a vendor means that there is no specific argument that can be brought up to enact defiance, avoidance or compromise because no practices have the required amount of legitimacy to justify alternative responses.

Proposition 2c: When a vendor faces pressure to comply with a client's institution while they have no institution in place to question the legitimacy of the client's institution, the vendor is likely to enact acquiescence.

Finally, our work showcases the ability for OISD projects to act as platforms where the legitimacy of a vendor's institutions can be questioned through the enactment of strategic responses and lead to the revision of existing institutional scripts. Indeed, our data show that when a vendor selects a strategic response that exposes them to a client's institution through the enactment of practices that differ from their own, the legitimacy of their own institution may be questioned. Consistent with the idea that external disturbances can influence the recursive reproduction of institutional patterns (Barley and Tolbert 1997; Oliver 1991), our work shows that strategic responses such as compromise and acquiescence have the potential to motivate the revision of existing patterns. Conversely, strategic responses that reinforce existing patterns such as avoidance remain consistent with the replication of existing patterns. Through the study of strategic responses as a result of instances of conflicting institutional demands, our work provides insight into the evolution of institutional patterns, such that:

Proposition 3: Strategic responses that allow a vendor to enact patterns prescribed by a client's institutions such as acquiescence and compromise have the potential to trigger the revision of institutional scripts while other strategic responses (e.g., avoidance) are more likely to trigger the replication of existing institutional scripts.

**CONCLUSION, LIMITATIONS AND IMPLICATIONS**

In this work, we have used institutional theory to study 1) the mechanisms vendors use to manage differences between their institutionalized practices and those of the client; and 2) the long term impacts of those mechanisms on vendors' institutionalized practices. Using a revelatory case study of an OISD project, we have studied differences between parties' institutionalized practices as instances of conflicting institutional demands (Pache and Santos 2010) addressed by vendors through the enactment of strategic responses (Oliver 1991). We have also studied how the selection of a strategic response – based on the institutional pillars of the parties' respective practices – can provide vendors with the opportunity to experiment and revise existing institutional scripts or encode new institutional scripts.

Building on those empirical findings, we have developed three main propositions that represent the main contributions of our work. First, we add to research on OISD adopting the perspective of vendors (Gopal et al. 2011) and emphasize the importance of studying the impact of differences *during* the course of an OISD project (Huber et al. 2013) as practices must be enacted and differences are likely to become salient. Second, we explain how institutional pillars provide different incentives for compliance from the part of vendors. Strategic responses represent a fine-grained repertoire of actions available to vendors that emphasize the relational aspect of OISD projects (Gopal and Koka 2012) and the possibility for actors to negotiate (Gregory et al. 2009) how work must be performed during the course of the project. Finally, we conceptualize institutional demands and their associated strategic responses as opportunities to trigger processes of institutional change (Barley and Tolbert 1997). This conceptualization supports a long-term vision of the impacts of differences and acknowledges that notwithstanding the *a priori* undesirable nature of differences, the mechanisms used to manage those differences may provide an opportunity to reinforce or revise prescribed practices. Future work on the topic may study the occurrence and

impacts of instances of conflicting institutional demands over time to gain insight on the unfolding of OISD projects from a process perspective[1].

Our work also has some limitations. First, our findings – while based on a strong theoretical foundation – are based on a single case study. Second, our propositions are developed on three instances of conflicting institutional demands. Future work is therefore needed to confirm our findings and extend them to other strategic responses that were absent from our data, namely defiance and manipulation.

Finally, our work has implications for practitioners. First, we draw attention to the relevance of institutionalized practices as sources of differences and invite practitioners to reflect on those patterns that they take for granted as they may become problematic *during* an OISD project. Second, institutional pillars provide a means for practitioners to understand the logic driving the enactment of practices and their ability to select strategic responses over others. In doing so, we invite practitioners to consider strategic responses such as acquiescence and compromise as opportunities to trigger a reflective process that has the potential to alter practices currently in place.

## NOTES

1: We thank an anonymous reviewer for this suggestion.

## REFERENCES

Ang, S., and Cummings, L. L. 1997. "Strategic Response to Institutional Influences on Information Systems Outsourcing," *Organization Science* (8:3), pp. 235-256.

Avison, D., and Fitzgerald, G. 2006. *Information Systems Development: Methodologies, Techniques & Tools*. New York, NY: McGraw-Hill Education.

Barley, S. R., and Tolbert, P. S. 1997. "Institutionalization and Structuration: Studying the Links between Action and Institution," *Organization Studies* (18:1), pp. 93-117.

Beck, R. 2014. "'Looking for Trouble' in Global Information Systems Development and New Product Development Outsourcing Projects," in *Innovation and IT in an International Context: R&D Strategy and Operations,* F. Rowe and D. Te'eni (eds.). New York, NY: Palgrave Macmillan, pp. 236-248.

Choudhury, V., and Sabherwal, R. 2003. "Portfolios of Control in Outsourced Software Development Projects," *Information Systems Research* (14:3), pp. 291-314.

Dibbern, J., Winkler, J., and Heinzl, A. 2008. "Explaining Variations in Client Extra Costs between Software Projects Offshored to India," *MIS Quarterly* (32:2), pp. 333-366.

Eisenhardt, K. M. 1989. "Building Theories from Case Study Research," *Academy of Management Review* (14:4), pp. 532-550.

Faraj, S., and Sproull, L. 2000. "Coordinating Expertise in Software Development Teams," *Management Science* (46:12), pp. 1554-1568.

Gopal, A., Espinosa, J. A., Gosain, S., and Darcy, D. P. 2011. "Coordination and Performance in Global Software Service Delivery: The Vendor's Perspective," *IEEE Transactions on Engineering Management* (58:4), pp. 772-785.

Gopal, A., and Koka, B. R. 2012. "The Asymmetric Benefits of Relational Flexibility: Evidence from Software Development Outsourcing," *MIS Quarterly* (36:2), pp. 553-576.

Gregory, R. W., Prifling, M., and Beck, R. 2009. "The Role of Cultural Intelligence for the Emergence of Negotiated Culture in IT Offshore Outsourcing Projects," *Information Technology & People* (22:3), pp. 223-241.

Herbsleb, J. D., Paulish, D. J., and Bass, M. 2005. "Global Software Development at Siemens: Experience from Nine Projects," *Proceedings of the 27th International Conference on Software Engineering,* G.C. Roman, W. Griswold and B. Nuseibeh (eds.), St. Louis, MO: IEEE, pp. 524-533.

Huber, T. L., Fischer, T. A., Dibbern, J., and Hirschheim, R. 2013. "A Process Model of Complementarity and Substitution of Contractual and Relational Governance in Is Outsourcing," *Journal of Management Information Systems* (30:3), pp. 81-114.

Islam, S., Joarder, M. M. A., and Houmb, S. H. 2009. "Goal and Risk Factors in Offshore Outsourced Software Development from Vendor's Viewpoint," *Proceedings of the Fourth IEEE Conference on Global Software Engineering,* J.M. Verner and D.J. Paulish (eds.), Limerick, Ireland, pp. 347-352.

Jain, R. P., Simon, J. C., and Poston, R. S. 2011. "Mitigating Vendor Silence in Offshore Outsourcing: An Empirical Investigation," *Journal of Management Information Systems* (27:4), pp. 261-298.

Jepperson, R. L. 1991. "Institutions, Institutional Effects, and Institutionalism," in *The New Institutionalism in Organizational Analysis,* W.W. Powell and P. DiMaggio (eds.). Chicago, IL: University of Chicago Press, pp. 143-163.

Kannabiran, G., and Sankaran, K. 2011. "Determinants of Software Quality in Offshore Development - an Empirical Study of an Indian Vendor," *Information and Software Technology* (53:11), pp. 1199-1208.

Koh, C., Ang, S., and Straub, D. W. 2004. "IT Outsourcing Success: A Psychological Contract Perspective," *Information Systems Research* (15:4), pp. 356-373.

Kraatz, M. S., and Block, E. S. 2008. "Organizational Implications of Institutional Pluralism," in *The Sage Handbook of Organizational Institutionalism,* R. Greenwood, C. Oliver, K. Sahlin and R. Suddaby (eds.). London, U.K.: Sage Publications, pp. 243-275.

Marano, V., and Kostova, T. 2016. "Unpacking the Institutional Complexity in Adoption of Csr Practices in Multinational Enterprises," *Journal of Management Studies* (53:1), pp. 28-54.

Mignerat, M., and Rivard, S. 2012. "The Institutionalization of Information System Project Management Practices," *Information and Organization* (22:2), pp. 125-153.

Nakatsu, R. T., and Iacovou, C. L. 2009. "A Comparative Study of Important Risk Factors Involved in Offshore and Domestic Outsourcing of Software Development Projects: A Two-Panel Delphi Study," *Information & Management* (46:1), pp. 57-68.

Natovich, J. 2003. "Vendor Related Risks in IT Development: A Chronology of an Outsourced Project Failure," *Technology Analysis & Strategic Management* (15:4), pp. 409-419.

Nicholson, B., and Sahay, S. 2001. "Some Political and Cultural Issues in the Globalisation of Software Development: Case Experience from Britain and India," *Information and Organization* (11:1), pp. 25-43.

Oliver, C. 1991. "Strategic Responses to Institutional Processes," *Academy of Management Review* (16:1), pp. 145-179.

Oliver, C. 1992. "The Antecedents of Deinstitutionalization," *Organization studies* (13:4), pp. 563-588.

Pache, A.-C., and Santos, F. 2010. "When Worlds Collide: The Internal Dynamics of Organizational Responses to Conflicting Institutional Demands," *Academy of Management Review* (35:3), pp. 455-476.

Project Management Institute. 2013. *A Guide to the Project Management Body of Knowledge: Pmbok® Guide*. Project Management Institute.

Rai, A., Maruping, L. M., and Venkatesh, V. 2009. "Offshore Information Systems Project Success: The Role of Social Embeddedness and Cultural Characteristics," *MIS Quarterly* (33:3), pp. 617-A617.

Sabherwal, R. 2003. "The Evolution of Coordination in Outsourced Software Development Projects: A Comparison of Client and Vendor Perspectives," *Information and Organization* (13:3), pp. 153-202.

Scott, W. R. 2008. *Institutions and Organizations: Ideas and Interests*. Thousand Oaks, CA: Sage Publications.

Suchman, M. C. 1995. "Managing Legitimacy: Strategic and Institutional Approaches," *Academy of Management Review* (20:3), pp. 571-610.

Teo, H.-H., Wei, K.-K., and Benbasat, I. 2003. "Predicting Intention to Adopt Interorganizational Linkages: An Institutional Perspective," *MIS Quarterly*), pp. 19-49.

Thornton, P. H., Ocasio, W., and Lounsbury, M. 2012. *The Institutional Logics Perspective: A New Approach to Culture, Structure, and Process*. New York, NY: Oxford University Press.

Xu, P., and Yao, Y. 2013. "Knowledge Sharing in Offshore Software Development: A Vendor Perspective," *Journal of Global Information Technology Management* (16:1), pp. 58-84.

Yin, R. K. 2013. *Case Study Research: Design and Methods*. Thousand Oaks, CA: Sage publications.