



**Strong contracts: the relationship between power and action**

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## Strong contracts: the relationship between power and action

### Abstract

**Purpose** – There is a view that strong preventative contracts are essential to control supplier opportunism and delivery during an outsourcing implementation. This paper tests the proposition that contractual environments, typical of outsourcing engagements, are essentially conflictual and that context and circumstance can act to overwhelm formal contractual and project control and lead to poor outcomes.

**Design/methodology/approach** – The paper reports on a supply case study focused on the outsourced delivery of an application development in the defence sector. Data was gathered by a participant observation in situ for a period of three years. A grounded analysis from observations, diaries, semi-structured interviews, focus groups, documentary analysis, and emails was carried out with six case organisations within the extended supply chain.

**Findings** – Collaboration between suppliers and buyers can be blocked by preventative fixed price contracts and as a result when requirements are incomplete or vague this adversely impacts success.

### Implications for practice

Strong contractual control focused on compliance may actually impede the potential success of outsourcing contracts especially when collaborative approaches are needed to cope with variability in demand.

### Originality/value

The research raises the important practical and conceptual notion that an outsourcing can be a conflictual inter-firm phenomenon, especially where multiple actors are involved and business uncertainty is present.

**Keywords:** Outsourcing, collaboration, power, conflict

### Introduction

Outsourcing is a co-operative activity undertaken to improve inter-firm transactions and is 'a decision taken by an organisation to contract-out or sell the organisation's IT assets, people and/or activities' (Willcocks and Kern, 1998: 29) to external vendors, who then manage the services for an agreed fee (Barthelemy, 2003, Dibbern et al., 2004, Lacity and Willcocks, 1998). It has been argued that the broad aim for organisations outsourcing internal

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3 functions is to achieve benefits in cost, flexibility and access to resources. However, actual  
4 outcomes have been mixed with some outsourcing contracts achieving poor results with a  
5 gap between expectations and actual service performance emerging (Deloitte, 2008, Wu et  
6 al., 2013).  
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10 Outsourcing is a prevalent practice and over 80% of organizations will outsource at  
11 least one service (Corbett, 2004). However, despite this widespread adoption there are  
12 performance issues, dissatisfaction and an apparent dichotomy as to why outsourcing is so  
13 prevalent, yet lacks empirical justification, and remains a largely unexplored puzzle (Jiang et  
14 al., 2006, Rouse, 2007). In this regard, outsourcing as a process, shares similar sub-optimal  
15 outcomes with other large scale changes, inter alia: Business Process Engineering (Holland  
16 and Kumar, 1995), Merger and Acquisitions (Cartwright and Cooper, 1993), the chronic  
17 problems of ERP implementations (Scarbrough et al., 2008) and even major failings in large  
18 scale project implementations (Bronte-Stewart, 2009). A recent survey of outsourcing  
19 illustrated that 65% of buyers renegotiated their contract, 30% cancelled and switched  
20 suppliers and 5% back-sourced the service in-house (Cullen et al., 2014: 51). These failings  
21 do not appear to derive from poor decision making per se but from internal factors,  
22 including poor professionalism and communication (Deloitte, 2008), lack of performance  
23 management systems and processes (McIvor et al., 2009), or possibly an attachment to  
24 implementation practices that 'lack any scientific justification' (Dietz, 2011: 2).  
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37 Cullen et al. (2005) suggested that anecdotal stories of failure may be a consequence  
38 of too high a level of analysis, and failure to consider the configuration of the outsourcing  
39 relationship. However, when proposing the configuration or governance as key factors  
40 researchers and practitioners often remain firmly focused on instrumental and technical  
41 matters and check lists (see Oshri et al., 2009, Willcocks et al., 2006). In addition, although  
42 this focus on configuration is a useful recipe, close collaborative relationships are much  
43 more important preconditions for success, and good communication and coordination  
44 underpin successful outcomes (Vanpoucke and Veereke, 2010, Whitley and Willcocks,  
45 2011).  
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53 Research into outsourcing has shown mixed results with some researchers arguing  
54 that balance sheets of the advantages and disadvantages, or the development of  
55 prescriptions, do not allow any kind of conclusion to be drawn in a specific situation (Clark  
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3 et al., 1995). Where outcomes are reported most consist of predictions or are desires to  
4 reduce cost (Lacity et al., 2010), are derived from expectations, and not on any grounded  
5 analysis (Rouse, 2007). Alsudairi and Dwivedi (2010), in reviewing the outsourcing literature  
6 showed the dearth of research into environmental/contextual issues, whilst Busi and Mclvor  
7 (2008) observed that there are key gaps in understanding and a need for more action  
8 research, processual and longitudinal studies focused on those processes and  
9 implementation practices underpinning success. The research reported in this paper focuses  
10 specifically on the implementation of outsourcing and the role power has in shaping  
11 collaboration and action. It is proposed that power and conflict emerges when there is  
12 uncertainty in demand or differences in objectives between the parties and that strong  
13 governance, rather than alleviating issues, can accentuate problems and inhibit the success  
14 of an outsourcing project.

### 25 **Conflict in outsourcing implementation**

26 It has been argued that organisations can be regarded as coalitions of interest groups  
27 competing and conflicting in micro political processes in ways that may be at odds with the  
28 overarching organisational goals (Marshall et al., 2015, Morgan, 1997, Quinn, 1980). From  
29 such a perspective it is assumed 'that power and politics are facts of life in organizations'  
30 (Ferris and Judge, 1991: 449) and organisations can be regarded as intrinsically political  
31 where managers have to manage 'politically diverse and conflicting interests' (Morgan,  
32 1997: 154). What is implied by this is that diverse groups within organisations can seek to  
33 alter major change programmes, to support their particular group needs, leading to sub-  
34 optimal implementations (Berente and Yoo, 2012, Marshall et al., 2015).

35 Outsourcing creates a reciprocal dependency between supplier and buyer and a  
36 power relationship comes into existence between them (Emerson, 1962, Kern and Kreijger,  
37 2001). From a structural perspective, resource dependency engenders a mutual power  
38 amongst supply chain partners (Chicksand, 2015, Cox et al., 2004). This level of dependency  
39 will be moderated by the complexity of outsourcing, the criticality of the resource,  
40 availability of alternatives as well as switching cost (Caniëls and Roeleveld, 2009, Cheon et  
41 al., 1995). In essence, outsourcing is generally controlled by a commercial contract between  
42 the parties and the economic exchange is a contracted service delivery (Emerson, 1987),  
43 whilst power in such circumstances is operationalised by the client disciplining the vendor to

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3 comply with requirements or by the supplier controlling critical resources (Heiskanen et al.,  
4 2008). Moreover, clients and vendors have different objectives; vendors need to manage  
5 profit margin, long and short term, whilst the client is motivated by delivery performance  
6 and short term cost. This creates a tension when partnering behaviours are required during  
7 periods of uncertainty and the need for adaptability is confronted by inflexible and strong  
8 contracting (Parker and Hartley, 2003, Weber and Mayer, 2011). This is further accentuated  
9 within a public sector context by the core ideologies of probity and equity and the need to  
10 manage cost that is often emphasised in fixed price contracts used to reduce risk and  
11 manage opportunism (Sanderson, 2009). These different perspectives are fundamentally  
12 conflictual and, consequently, implementation is a site of collaboration to create the  
13 service, and a site of conflict to claim value and deliver one's own objectives (Heiskanen et  
14 al., 2008).

### 25 **The role of power in outsourcing contracts**

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27 Power is ubiquitous within the implementation stage of outsourcing and occurs in  
28 the control of 'deviancy' or delivery failure (Quinn, 1980), to co-opt groups in order to  
29 reduce conflict (Pfeffer, 1993), to manage culture and meaning (Magelssen et al., 2015,  
30 Schein, 1992) and as an embedded element of the supplier buyer delivery relationship (Cox,  
31 2001). Power is used to influence behaviour, 'to change the course of events', to manage  
32 resistance and as discipline to 'get people to act differently' (Li et al., 2014, Pfeffer, 1992).  
33 Politics is an amalgam of the process, actions and the behaviours by which power is  
34 practically expressed and operationalised (Horton, 2003, Senior and Swailes, 2010). 'Power,  
35 politics and culture ... are intertwined in the outsourcing process' (Allen et al., 2002: 170).

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37 Power dynamics shape all aspects of outsourcing's planning and execution from  
38 within the decision-making process, managing conflict between executives and IT managers  
39 (Chakrabarty and Whitten, 2011, Marshall et al., 2015) and controlling and disciplining the  
40 supplier if the service fails (Heiskanen et al., 2008). Furthermore, power is used to control  
41 supplier power and manage client dependency (Caniëls and Roeleveld, 2009, Stenbacka and  
42 Tombak, 2012) and to reduce the effects of conflict and resistance (Pfeffer, 1981, Pfeffer,  
43 1993). Power also arises in political and resisting behaviours, such as withholding or  
44 distorting information (Pettigrew, 1973), controlling the agenda (Eisenhardt and Zbaracki,  
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1992) managing decisions to 'side-line' potential opposition (Chakrabarty and Whitten, 2011) or using inducements as a bargaining tool (Hickson et al., 1986, Marshall et al., 2015).

The context and application of power directly effects collaborative behaviour and how suppliers adapt to the prevailing power context (Cox, 2004, Cox et al., 2004). Structurally, the power dynamic has a material influence on how suppliers are managed and can restrict their zone of manoeuvre and their capability to react to changing business requirements. Strong contractual control from this perspective can 'stymy' collaborative behaviour, engender vigilant and instrumental behaviour, and prevent relational governance (Sanderson, 2004, Vanneste and Puranam, 2010). This type of effect can be observed by poor adaptation to business change, cycles of negotiation in response to change as well as fragmented collaboration.

From the above discussion two research propositions will be explored:

*How strong contracts can place constraints on supplier manoeuvrability in responding to business uncertainty and secondly,*

*How a constrained project causes power and conflict to emerge as buyers and suppliers negotiate implementation.*

We will conclude by proposing that appropriate governance and contracting needs to account for uncertainty in business requirements as well as the complexity of the delivered service.

## Methods

The research was carried out between six collaborative buyer and supplier partners in the defence industry as they implemented a large-scale application development (HRMSys) for the headquarters HRM department, part of a large European multi-national defence organisation. The provision of the system was contracted by Agency to a buyer consortium led by a System Integrator (SI) that outsourced software development to a niche software house PersonSoft and the testing, validation and integration to a Romanian software testing company. The relationship between the collaborative partners and the extended supply chain that came into existence is shown as **Figure 1**. The research not just based on episodic observations over time but on day-to-day observations in 'medias res' (Van de Ven, 2007).

This research adopts a practice perspective, studying the work of purposive actors solving

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3 everyday problems as they work together to implement the solution within the influence of  
4 power (Currie and Swanson, 2009, March, 1981).  
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9 **Figure 1 - the outsourcing participants**

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11 *[Insert figure1 – the outsourcing participants.png about here]*  
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14 This was an explanatory case study approach designed to describe and explain the complex  
15 phenomena of the implementation as it occurred within its real-life context (Yin, 2011). The  
16 research was a longitudinal, in depth case study (Gummerson, 1991, Yin, 1994) using  
17 participant observation as the field study approach (Jorgensen, 1989, Waddington, 2004),  
18 including interviews and documentary analysis of contracts and substantial volumes of on-  
19 going e-mail traffic (May, 2005, Rowlinson, 2004). Research data for the implementation  
20 phase included: semi-structured and structured interviews, documented workshops,  
21 research diaries, contract documentation, project management and control documents,  
22 internal memos and all monitoring reports. The case reported here was monitored for five  
23 years from contract bid and award until the delivery was accepted but focused on the  
24 implementation of the initial operating capability starting in 2011. This scope is shown in  
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34 **Figure 2.**

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38 **Figure 2 - Data collection across the implementation phase**

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40 *[Insert figure2 – Data collection across the implementation phases.png about here]*  
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43 The interview protocol during the implementation stage focused primarily on project  
44 interactions, problems and outcomes, post the initial operating capability (IOC). These  
45 interviews explored how the process had evolved over time, and in particular critical  
46 incidents. As a complete timeline was constructed we were able to triangulate and validate  
47 respondents' recall by referring to email exchanges, project and meeting reports. The  
48 number of personnel in the project across the six main organisations was sixty-one with  
49 twenty-one core participants who were tracked closely. The interviews during the  
50 implementation were carried out on location and varied in length between twenty minutes  
51 and two hours and were focused over time onto specific critical incidents (the initial and the  
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3 follow up protocols are available on request). No recording of the interviews was permitted  
4 at the locations, due to high security requirements, and interviews were written up from  
5 hand-written notes immediately following each interview. This data was stored  
6 electronically in archive folders covering the general project control (13 folders, 535 files),  
7 design (12 folders, 675 files), emails (4,921) and memos/reports (1389). All data, including  
8 extracted emails, was entered to a password protected database, NVivo10. The data  
9 analysis steps were executed following IOC system acceptance during 2014. In addition,  
10 after IOC acceptance a round of semi-structured interviews was conducted during 2015 with  
11 key project participants structured around the main themes of power, conflict and  
12 contractual constraints and related points the analysis uncovered. These interviews lasted  
13 from one and a half to three hours, were recorded and transcribed then also loaded into  
14 NVivo10. The overall data collection model and interview structure for the implementation  
15 of HRMSys is shown as **Figure 3**.  
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28 **Figure 3 - Interview schedule across organisation structure**

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30 *[Insert figure3 – Interview schedule across organisation structure.png about here]*  
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33 **Data Analysis**

34 The framework for analysing the qualitative data extracted from the interviews, email  
35 narratives and documents followed the model described by Strauss and Corbin (1998) for  
36 grounded theory, and the data analysis was carried out in four main phases following the  
37 procedure outlined by Gioia et al. (2013). First, field notes and project log, interview  
38 transcripts and archived project document data were thoroughly reviewed to get a broad  
39 understanding of the main project events and their sequence, which were then used as a  
40 guide for the initial coding. Analysis was based on identifying the themes of control and  
41 resistance observed at identified critical moments during project implementation using the  
42 theoretical lens of power in institutions as a sensitising framework (Lawrence, 2008). The  
43 first stage of analysis involved coding and classifying documentation, emails and interview  
44 transcripts chronologically, across organisations and participants to construct a complete  
45 timeline, in monthly segments, of the project from its initiation in February 2011 to final  
46 system acceptance in December 2013. In the second step we coded 'in vivo' for delivery  
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3 service concepts and power themes based on the literature review and converged on the  
4 final model by a process of constant comparison, using framework matrices, iterating  
5 between the raw data with that encoded in the current construct.  
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### 8 9 **Data representation**

10 The derived empirical clusters, second-order theoretical constructs, and dimensions are  
11 shown in the data model **Figure 4**. For each of the empirical clusters representative  
12 quotations were extracted from the case raw material and clustered around the theoretical  
13 second order themes. As a final step we combined the second-order themes into aggregate  
14 categories as suggested explanations for the themes of power observed. This analysis is  
15 shown in **Tables 1 to 4** and enables a trace to be made from empirical evidence via  
16 constructs and themes to the four high level categories: controlling actions and decisions,  
17 creating a negotiated order, institutional and systemic power, and enforcing compliance to  
18 rules.  
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### 28 **Figure 4 - Extracted power dimensions from analysis**

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30 *[Insert figure4 – Extracted power dimensions from analysis.png here]*  
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### 33 **Findings – the evidence for the power dimensions**

#### 34 **Dimension – controlling actions and decisions**

35 Rules, regulations, contracts and the recording of minutes are examples of mechanisms that  
36 control how work should be done and monitored. Controlling decision-making by managing  
37 access between parties, and determining who is included or excluded in discussions,  
38 controlling information flows, and defined modes of work are characteristic of the power of  
39 processes (Hardy, 1996). An extract of the data model shown as **Figure 5** and the empirical  
40 data trace to categories as **Table 1**.  
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### 50 **Figure 5 - Extract empirical model controlling actions and decisions**

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52 *[Insert figure5 – Extract empirical model controlling actions and decisions.png here]*  
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55 The contractual framework required by the Defence customer to implement a new human  
56 resource (HRMSys) specified, in detail, the governance, legitimate communication channels,  
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3 delivery flows from suppliers to customers, and the ways in which the design must be  
4 achieved and documented. No aspect of the development process was left open or  
5 unspecified. Furthermore, selective control, access and release of information as well as a  
6 non-integrated team facilitated poor information sharing that was characteristic of day-to-  
7 day work practices.  
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11 Extensive process control inhibits supplier performance since it does not allow the  
12 supplier to show competence in managing service delivery (Tiwana and Bush, 2007). Tight  
13 and inflexible control quickly became an obstacle to progress, especially around the  
14 definition of the design. A fixed price project demands a known scope, whereas it was  
15 observed here the business requirements were far from fixed and required much more  
16 development, and this acted as an impediment to success (Beaumont and Sohal, 2004).  
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20 A fragmented supplier team was evident that exhibited poor knowledge sharing  
21 processes. Hong and Fiona (2009) showed that social inclusion is a prerequisite for joint  
22 development, and partners that remain largely distinct and distant cannot create a common  
23 identity and community of practice essential for a successful outcome. Accentuating this  
24 problem, declarative knowledge in documents is often insufficient and a high level of shared  
25 knowledge, especially deep tacit knowledge, is essential and this is only acquired by face-to-  
26 face interactions that were largely prevented. As was observed in this research a social  
27 process is essential and a separated non-integrated team impedes this (Collins and Hitt,  
28 2006). The lack of integration and the strong control exerted by the buyers actively  
29 prevented the outsourcing team adapting to changing circumstances and added delays to  
30 the implementation.  
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#### 42 **Table 1 - Dimension control over actions**

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44 *[Insert Table 1 – Dimension control over actions.docx here]*  
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#### 47 **Dimension – creating a negotiated order**

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49 The exchange and bargaining for resources is a political process that creates a pattern of  
50 exchange that varies over time - the outcome representing the status of the power relations  
51 at a particular moment (Dawson, 1994). An extract of the data model is shown as **Figure 6**  
52 and the empirical data trace to categories detailed in **Table 2**.  
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**Figure 6 - Extract empirical model creating a negotiated order**

[Insert figure6 – Extract empirical model creating a negotiated order.png here]

There was latent conflict at the heart of the project which was manifest in a mismatch between a niche supplier of bespoke software and a requirement for a commercial off the shelf (COTS) solution. From the beginning, how new requirements could be offset against existing functionality in the incumbent software application triggered negotiation. Agency and HRMDept insisted that new requirements should be included within the existing scope at no extra cost and suppliers disagreeing and stating new requirements were *'not included in the bid submission'* and must be paid for. Furthermore, HRMDept claimed that there was *'substantive functionality already present'* in the incumbent application that could be *'reasonably assumed'* to be already delivered. This meant from their perspective that there was development time saved that could be offset against new requirements.

This process during the requirements and later stages revolved around this type of formal and informal negotiation, brokering and blaming, to reduce or contain scope. Resistance was observed, and conflict emerged, as cycles of negotiation over failures in deliverables, blaming failures on partners, the settling of old scores, and conflict over the requesting and denial of help became a characteristic of the project. The strong contractual governance constrained adapting to change and suppliers responded to this by questioning and re-negotiating every element of the contract, which added to severe time delays.

**Table 2 - Dimension creating a negotiated order**

[Insert Table2 – Dimension creating a negotiated order.docx here]

**Dimension – institutional and systemic power**

Symbolic and Institutional power is embedded and acts to influence and constrain how organisations and actors perform their roles. Resistance as an action is mainly an attempt to reduce these constraints or to co-opt those elements in-line with one's own objectives. An extract of the data model shown is shown **Figure 7** and the empirical data trace to categories detailed in **Table 3**.

**Figure 7 - Extract empirical model institutional and systemic power**

*[Insert figure7 – Extract empirical model institutional and systemic power.png here]*

Institutional constraints, via legitimate rules of engagement and established cultural norms of practice, regulated the work of the actors. It was observed that both suppliers and buyers were trying to modify and shape the contract to suit their own interests. Systemic power is an embedded factor within a project and represented by organisational scripts and patterns, and particular ways of talking and behaving, which becomes visible when constituted in actions of compliance. Symbolic tools, such as liquidated damages, were used for failings in contracted deliverables to control group behaviour and force compliance. There was an acceptance of authority hierarchies such as the contractor/subcontractor, client/supplier and defence/civilian dyads that legitimised authority relations, subordinate roles and particular organisational scripts.

Time and planning had a legitimate and unquestioned symbolic role within the system development. Meeting the schedule was of prime importance and the quality of what was delivered was secondary to when it was delivered. No one on the buyer side was able to assess for validity so deliverables were accepted on the basis of being on time. This exposed an information asymmetry between buyers and suppliers and was an example of shirking behaviour.

There were changes in the institutional context on a wider organisational scale, from a distributed to a more centralised form of governance that was reflected in the type of controls and standards being imposed on the organisation. Structural influences of wider economic and political forces, such as the global financial crisis in 2008, drove a tighter focus on cost that put at risk the original planning assumptions. Resistance to power was seen by the questioning of legitimacy and challenging of the worth of imposed rules and regulations, as well as nostalgia for the old ways of working.

**Table 3 - Dimension institutional and systemic power**

*[Insert Table3 – Dimension institutional and systemic power.docx here]*

### Dimension – enforcing compliance to rules

Literature on power characterises compliance primarily as a direct application of the power of possession or control of resources. It is seen episodically as actors enforce systemic and symbolic power (Lawrence, 2008). An extract of the data model is shown as **Figure 8** and the empirical data trace to categories detailed in **Table 5**.

#### Figure 8 - Extract empirical model enforcing compliance to rules

*[Insert figure8 – Extract empirical model enforcing compliance to rules.png here]*

Agency and the HRMDept used their ability to reject, accept and veto deliverables as a mechanism for ensuring close compliance to the contractual imperatives. It was observed how obedience and compliance were ensured, by strictly controlling conformance to design rules or documentation standards, or by using sanctions and rewards. This was a direct use of power to control and influence the behaviour of the suppliers to be in line with that of the objectives of the dominant actor. Within this project, rejection of deliverables meant delays, extra work on repair and ultimately delays in payment for services which had a high impact on the suppliers. The negative aspects of this focus on compliance resulted in a lack of sensitivity to emerging problems in service delivery that only became apparent very late in the project. Resistance to the application of this type of power came through negotiation to reduce the scale and scope of functional deliverables, questioning the utility of key aspects, criticising requirements, claims of vagueness in business need, or reducing the impact of compliance by claiming inappropriateness.

#### Table 4- Dimension enforcing compliance to rules

*[Insert Table4 – Dimension enforcing compliance to rules.docx here]*

### Discussion

#### The Dynamics of Power

This research explores two propositions, firstly that strong contracts in an outsourcing prevent a flexible response to uncertainty, and secondly, in a constrained context a power dynamic emerges as buyers and suppliers conflict over implementation goals. The adoption

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3 of preventative, complex contracting, meant the practices of work were strongly regulated  
4 with an emphasis on monitoring and vigilance (Barney and Hansen, 1994, Malhotra and  
5 Murnighan, 2002). This was observed in how meetings were structured to restate the  
6 project hierarchies in terms of the norms of behaviour, planning practices, the allowed  
7 topics and who was allowed to speak (Fleming and Spicer, 2006). The subordinated position  
8 of PersonSoft was emphasised and the flow of delivery and information between the parties  
9 actively managed. This observation emphasised two concrete aspects of how decision  
10 making was controlled, firstly, how decisions are taken in situations where there are  
11 conflicts of interest, and secondly, over the control of disputes, what topics could be  
12 discussed or even legitimately raised (Hardy, 1996, Horton, 2003, Lukes, 1974).  
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21 A derived model of the interaction between the four categories of power during the  
22 implementation is shown as **Figure 9**. Central to this process were the practices that created  
23 the service outcome and the conflict that arose when there was a mismatch. This  
24 observation demonstrated how power and conflict arises from a form of disagreement on  
25 the outcomes and results in gap-closing actions (Levina and Orlikowski, 2009). Gaps also  
26 appeared within the internal dynamics of the group, when, for example, a process fault was  
27 noticed, such as during testing, or a requested action from a partner did not occur. Both of  
28 these aspects were observed during implementation and contributed incrementally to  
29 failure.  
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38 If there was no disagreement, or the situation was accepted, then limited conflict  
39 arose, however, where there was strong disagreement action was started via triggering of  
40 compliance or bargaining behaviours. The role of resistance in this process was to mediate  
41 and reduce the impact of the corrective actions when this was seen as detrimental by the  
42 parties. The nature of the gap in outcomes was framed by actors as either acceptable or  
43 something that must be corrected. Dependent on what was required an event was triggered  
44 as a change in requirements, governance or management actions. Whether or not a change  
45 actually took place depended on the event salience and whether there was sufficient power  
46 to overcome inertia. This feature helps explain why episodes of activity in this particular  
47 context were quasi-stable and did not adapt quickly. Although poor performance was  
48 becoming evident, mediations were dampened by effectively applied resistance and any  
49 corrective actions petered out.  
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3 The process of implementation of this outsourcing was subject to continuous  
4 iterative negotiation of scope and direction. In the intervening three years from contract  
5 award until actual start there were changes in business context and functional requirements  
6 that confronted a fixed immovable contract emphasising compliance to timelines and cost.  
7 Over the implementation stage the failure to understand this changing context and translate  
8 this into achievable objectives continuously engendered conflict between the supplier and  
9 client organisations and underpinned eventual failure.

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11 Bargaining behaviours developed in four main areas: managing capability shortfalls,  
12 containing scope, circumventing control, and negotiating a modification to plans and  
13 standards (Barrett, 2004). Capability gaps had emerged from the differences between  
14 deliveries in the contract, requirements, and those feasible within the current software  
15 application. The careful definition of the precise meaning of deliverables or persuasion to  
16 accept reduced capability as well as the removal of problematic functions to later were  
17 examples of negotiated compromises. These activities represented the application of  
18 influence to change the behaviour of buyers (Lacity and Hirschheim, 1993, Pfeffer, 1981).  
19 This observation confirmed bargaining power as a forceful factor in framing the choices  
20 made during implementation (Heiskanen et al., 2008). In this situation suppliers acted  
21 opportunistically to maximise any impact of the change, with buyers endeavouring to  
22 minimise the effect on time and budget.

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24 Resistance was expressed by negotiating relief from demands, appeals to prior  
25 relations, challenges to authority and relevance, and the subverting of formal hierarchies.  
26 Resistance and cycles of negotiation and bargaining became endemic as gaps in  
27 expectations and deliveries appeared and poor communication and coordination emerged  
28 (Vanpoucke and Veereke, 2010). Furthermore, resistance in this context was seen as a  
29 response acting to control change to commercially acceptable levels and as such an  
30 integrated part of the action, evaluation and negotiation process. This supports the idea  
31 that resistance is not just 'restrictive' but active and purposive and can operate as a form of  
32 'negative' feedback that potentially controls and avoids wide variability in project decisions  
33 (Perren and Megginson, 1996, Piderit, 2000).  
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3 **Figure 9 - The dynamics of institutional politics**

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5 *[Insert figure9 – The dynamics of institutional politics.png about here]*

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7 **Source: Authors**

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10 During the implementation, the outputs of the process were continually created and judged  
11 against goals whilst cycles of correction were taking place. This was changing the work  
12 practices, goals and organisational routines. This process of change was observed to be  
13 iterative and more characteristic of a negotiated order where the eventual outcome is a  
14 shared agreement worked out by a process of compromise between what was desired and  
15 what could be achieved (Strauss, 1978). The final state represented a balance between the  
16 parties and was an outcome of power and negotiation where resistance played an integral  
17 part in moderation.

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24 **Control and Action**

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26 The proposed relation between the control posture and service definition emerging from  
27 our research is shown as **figure 10**. For simple, highly prescribed services that are relatively  
28 fixed over time, a strong contractual posture, especially during start-up is required. This  
29 ensures the delivery of outcomes and controls supplier opportunism. If business demand  
30 changes or there are large alterations in functional scope more collaborative and relational  
31 contracting becomes effective. The outcomes become negotiated and a result of  
32 compromise as buyers and suppliers actively search for a solution. In these circumstances,  
33 (A and D figure 10) there is a degree of contractual fit between service and control, whereas  
34 in B and C there is a mismatch, as was shown in this case when highly aggressive contract  
35 management was applied in a situation of demand uncertainty and led to an eventual  
36 failure in the service delivery.

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47 **Figure 10 – The outsourcing service and control matrix**

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49 *[Insert figure10 – The outsourcing service and control matrix.png here]*

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51 **Source: Authors**

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55 The observed behaviour in this case study demonstrates that power and conflict within an  
56 inter-firm relation are dynamic processes contingent on the scale and scope of the gap in  
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3 performance and the relative power between the parties (Cox et al., 2004). Furthermore, it  
4 demonstrates that in real world implementations changes in scope, performance deficits,  
5 uncertainty and unplanned contingencies are daily facts of life. However unconstrained  
6 change and variability of business need can seriously impact success (Beaumont and Sohal,  
7 2004). These continuous changes and problems can swamp planning practices founded on  
8 the 'iron three' of quality, cost and time and can make them ineffective (Cicmil and  
9 Hodgson, 2006, Pinto, 2010).

### 16 **Conclusion - the roots of project failure**

17  
18 This outsourcing event failed to meet any time, process or cost objectives as the strong  
19 governance mismatched the changed business circumstances that demanded a more  
20 collaborative inter-dependent mode of operation (Sanderson, 2009, Sanderson and Cox,  
21 2008). The consortium created to deliver the software consisted of six interacting partners,  
22 each with their own internal objective and supporting its own organisational and individual  
23 group objectives (Marshall et al., 2015, Morgan, 1997). These organisations were operating  
24 within the overall framework of an overarching goal as laid down in the contract. However,  
25 they also needed to achieve other objectives; such as cost reduction, service delivery and  
26 service profit margin. Changes in institutional context, relationships and hierarchies,  
27 objectives and outcome have been shown to engender conflict if the objectives of  
28 constituent organisations are compromised or contested (Campbell, 2010, Campbell, 2004,  
29 Lindegaard, 2013). Furthermore, a project environment displays systemic conflict  
30 throughout all its stages, a situation known to be associated with poor outcomes (Verma,  
31 1998). Within this project high conflict emerged due to severe constraints in ability to  
32 deliver and a focus only on contractual demands that constrained supplier manoeuvrability  
33 to respond to change. This resulted in suppliers focusing only on instrumental goals and  
34 showing low flexibility in response to uncertainty.

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48 The strong controls observed and the tight contracts focused on 'safeguarding' or  
49 'prevention' increases the control over suppliers but reduces the opportunity for co-  
50 operation (Parmigiani and Rivera-Santos, 2011, Poppo and Zhou, 2013). Furthermore,  
51 processes put in place to constrain and regulate supplier's behaviour to reduce risk,  
52 minimise supplier opportunism and ensure success are founded on a purely rational  
53 perspective. This notion of technological determinism implicit in current outsourcing  
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3 practice ignores the effects of institutional and actor agency and the resistance actors can  
4 mobilise to modify implementation processes to suit their own interests. From this  
5 perspective outsourcing can be seen as an enacted process with parties able 'to escape' and  
6 resist contractual straightjackets leading to patterns of power and conflict during  
7 implementation that unfolds as different parties interact and negotiate. High levels of  
8 collaboration and interdependence can be argued as essential ingredients for managing  
9 shifting requirements within a complex service delivery (Cox et al., 2004, Sanderson, 2004).  
10 Within this outsourcing such collaboration was blocked by a strict contractual regime.

### 18 **Implications for Practice**

19 Emerging and growing problems in service delivery and an inability to adapt the  
20 implementation to major changes predicted the eventual poor outcome. The buyers  
21 approached this challenge by ever stronger project and contractual control, and a focus on  
22 the minutia of documents, rather than addressing evident problems in capability. From our  
23 observations, none of these compliance actions had any material effect on the eventual  
24 outcome and the use of sanctions may have actually inhibited openness and masked  
25 problems. Our research shows that outsourcing is a change where parties to the contract  
26 jointly create the service and must adapt their actions in response to contingencies.  
27 Contracts are needed, inter alia, to control scope and manage opportunism but are  
28 subservient to the need to create effective service frameworks that are adaptive to the  
29 emergent nature of change in complex, inter-firm service contexts.

### 41 **Figure 11 – The evolution of the HRMSys implementation**

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43 *[Insert figure11 – The evolution of the HRMSys implementation.png about here]*  
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45 **Source: Authors**

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48 Consolidating our observations from the case we have demonstrated that in this project  
49 strong contractual governance, with a focus on ensuring compliance, in a situation of service  
50 uncertainty, constrained problem solving and led to sub-optimal outcomes that drove a  
51 process of continuous conflict and re-negotiation. Personsoft had worked collaboratively  
52 with the HRM department for many years developing tailor-made bespoke solutions for  
53 their business needs, (section C in figure 11). The formalisation of the HRM system meant  
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3 both HRMDept and Personsoft had to operate within the formal guidance and control of a  
4 corporate organisation that emphasised strict contracting and compliance to objectives,  
5 (section B in figure 11). As the complexity of the requirements increased due to changing  
6 demands the organisations were constrained in their response and continued as if nothing  
7 had happened, emerging problems went unaddressed, and eventual failure secured.  
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9 Following project closure, and a formal review, attempts were made to position the full  
10 operating capability (FOC) phase more in the region A of figure six to reflect the  
11 developmental and integrated approach needed for the new technology. This points to two  
12 major lessons; firstly, contracts must be crafted appropriately to the service needed and  
13 complex uncertain business need requires inter-dependent collaborative approaches,  
14 secondly, if major changes are envisaged to a fixed price contract this will make the original  
15 contract invalid as it is almost impossible to adapt such a contractual regime to varying  
16 demand. This implies that when such change occurs it may be wise to start again and adopt  
17 a relational contracting approach.  
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## References

- Allen, D., Kern, T. & Mattison, D. 2002. Culture, Power and Politics in Ict Outsourcing in Higher Education Institutions. *European Journal of Information Systems*, 11, 159-173.
- Alsudairi, M. & Dwivedi, Y. K. 2010. A Multi-Disciplinary Profile of Is/It Outsourcing Research. *Journal of Enterprise Information Management*, 23, 215-258.
- Barney, J. & Hansen, M. A. 1994. Trustworthiness as a Source of Competitive Advantage. *Strategic Management Journal*, Vol. 15, pp. 175-190.
- Barrett, S. M. 2004. Implementation Studies: Time for a Revival? *Public Administration*, Vol. 82(2), 249-262.
- Barthelemy, J. 2003. The Seven Deadly Sins of Outsourcing. *Academy of Management Executive*, vol. 19.
- Beaumont, N. & Sohal, A. 2004. Outsourcing in Australia. *International Journal of Operations & Production Management*, 24(7), 688-700.
- Berente, N. & Yoo, Y. 2012. Institutional Contradictions and Loose Coupling: Postimplementation of Nasa's Enterprise Information System. *Information Systems Research*, 23, 376-396.
- Bronte-Stewart, M. Risk Estimation from Technology Project Failure. 4th European Conference on the Management of Technology, 2009 Glasgow Scotland.
- Busi, M. & McIvor, R. 2008. Setting the Outsourcing Research Agenda: The Top-10 Most Urgent Outsourcing Areas. *Strategic Outsourcing: An International Journal*, Vol. 1, 185-197.
- Campbell, J. 2010. Institutional Reproduction and Change. In: Morgan, G., Campbell, J. L., Crouch, C., Pedersen, O. K. & Whitley, R. (eds.) *Oxford Handbook of Comparative Institutional Analysis*. New York: Oxford University Press.
- Campbell, J. L. 2004. *Institutional Change and Globalization*, Princeton New Jersey, Princeton University Press.
- Caniëls, M. C. J. & Roeleveld, A. 2009. Power and Dependence Perspectives on Outsourcing Decisions. *European Management Journal*, 27, 402-417.
- Cartwright, S. & Cooper, C. L. 1993. The Role of Culture Compatibility in Successful Organizational Marriage. *Academy of Management*.
- Chakrabarty, S. & Whitten, D. 2011. The Sidelining of Top It Executives in the Governance of Outsourcing: Antecedents, Power Struggles, and Consequences. *IEEE Transactions on Engineering Management*, 58, 799-814.
- Cheon, M. J., Grover, V. & Teng, J. T. C. 1995. Theoretical Perspectives on the Outsourcing of Information Systems. *Journal of Information Technology*, 10, 209-219.
- Chicksand, D. 2015. Partnerships: The Role That Power Plays in Shaping Collaborative Buyer-Supplier Exchanges. *Industrial Marketing Management*, 48, 121-139.
- Cicmil, S. & Hodgson, D. 2006. New Possibilities for Project Management Theory: A Critical Engagement. *Project Management Journal*, Vol. 37(3), 111-122.
- Clark, T. D., Zmud, R. & McCray, G. 1995. The Outsourcing of Information Services: Transforming the Nature of Business in the Information Industry. *Journal of Information Technology*, Vol. 10 (4), pp. 221-238.
- Collins, J. D. & Hitt, M. A. 2006. Leveraging Tacit Knowledge in Alliances: The Importance of Using Relational Capabilities to Build and Leverage Relational Capital. *Journal of Engineering and Technology Management*, 23, 147 - 167.
- Corbett, M. F. 2004. *The Outsourcing Revolution* United States, Dearborn.
- Cox, A. 2001. Understanding Buyer and Supplier Power: A Framework for Procurement and Supply Competence. *IEEE Engineering Management Review*, 29, 87-94.

- 1  
2  
3 Cox, A. 2004. The Art of the Possible: Relationship Management in Power Regimes and Supply  
4 Chains. *Supply Chain Management: An International Journal*, vol. 9.
- 5 Cox, A., Watson, G., Lonsdale, C. & Sanderson, J. 2004. Managing Appropriately in Power Regimes:  
6 Relationship and Performance Management in 12 Supply Chain Cases. *Supply Chain*  
7 *Management: An International Journal*, vol. 9.
- 8 Cullen, S., Lacity, M. & Willcocks, L. P. 2014. *Outsourcing All You Need to Know*, White Plume  
9 Publishing.
- 10 Cullen, S., Seddon, P., B. & Wilcocks, L., P. 2005. It Outsourcing Configuration: Research into Defining  
11 and Designing Outsourcing Arrangements. *Journal of Strategic Information Systems*, 14 (2005),  
12 357-389.
- 13 Currie, W. L. & Swanson, E. B. 2009. Special Issue on Institutional Theory in Information Systems  
14 Research: Contextualizing the It Artefact. *Journal of Information Technology*, 24, 283-285.
- 15 Dawson, P. 1994. *Organisational Change - a Processual Approach*, London, Paul Chapman.
- 16 Deloitte 2008. Why Settle for Less? : Deloitte Consulting 2008 Outsourcing Report. *Deloitte*  
17 *Consulting Outsourcing Advisory Services*.
- 18 Dibbern, J., Goles, T., Hirschheim, R. & Jayatilaka, B. 2004. Information Systems Outsourcing: A  
19 Survey and Analysis of the Literature. *Data Base for Advances in Information Systems*, 35, 6-98.
- 20 Dietz, J. L. G. 2011. From Information Systems Development to Enterprise Engineering. In: Pokorny,  
21 J., Repa, V., Richta, K., Wojtkowski, W., Linger, H., Barry, C. & Lang, M. (eds.) *Information Systems*  
22 *Development: Business Systems and Services: Modeling and Development*. Springer.
- 23 Eisenhardt, K. M. & Zbaracki, M. J. 1992. Strategic Decision Making. *Strategic Management Journal*,  
24 vol. 13, 17-37.
- 25 Emerson, R. M. 1962. Power-Dependence Relations. *American Sociological Review*, 27.
- 26 Emerson, R. M. 1987. Towards a Theory of Value in Social Exchange. In: Cook, K. S. (ed.) *Social*  
27 *Exchange Theory*. Newbury Park California: SAGE.
- 28 Ferris, G. R. & Judge, T. A. 1991. Personnel/Human Resources Management: A Political Influence  
29 Perspective. *Journal of Management*, 17, 447-488.
- 30 Fleming, P. & Spicer, A. 2006. *Contesting the Corporation: Struggle, Power and Resistance in*  
31 *Organizations*, Cambridge University Press.
- 32 Gioia, D. A., Corley, K. G. & Hamilton, A. L. 2013. Seeking Qualitative Rigor in Inductive Research:  
33 Notes on the Gioia Methodology. *Organizational Research Methods*, 16, 15-31.
- 34 Gummerson, E. 1991. *Qualitative Methods in Management Research*, London, Sage.
- 35 Hardy, C. 1996. Understanding Power: Bringing About Strategic Change. *British Journal of*  
36 *Management*, 7, S3-S16.
- 37 Heiskanen, A., Newman, M. & Eklin, M. 2008. Control, Trust, Power, and the Dynamics of  
38 Information System Outsourcing Relationships: A Process Study of Contractual Software  
39 Development. *Journal of Strategic Information Systems*, 17, 268-286.
- 40 Hickson, D. J., Butler, R. J., Cray, D., Mallory, G. R. & Wilson, D. C. 1986. *Top Decisions: Strategic*  
41 *Decision-Making in Organizations* San Francisco, Jossey-Bass.
- 42 Holland, D. & Kumar, S. 1995. Getting Past the Obstacles to Successful Reengineering. *Business*  
43 *Horizons*, 79-85.
- 44 Hong, J. F. L. & Fiona, K. H. 2009. Conflicting Identities and Power between Communities of Practice:  
45 The Case of It Outsourcing. *Management Learning*, 40, 311-326.
- 46 Horton, K. S. 2003. Strategy, Practice, and the Dynamics of Power. *Journal of Business Research*, vol.  
47 56, 121-126.
- 48 Jiang, B., Frazier, G. V. & Prater, E. L. 2006. Outsourcing Effects on Firms' Operational Performance:  
49 An Empirical Study. *International Journal of Operations and Production Management*, 26, 1280-  
50 1300.
- 51 Jorgensen, D. L. 1989. *Partipant Observation: A Methodology for Human Studies*, London, SAGE.
- 52 Kern, T. & Kreijger, J. An Exploration of the Application Service Provision Outsourcing Option. 2001  
53 Hawaii. 250.
- 54  
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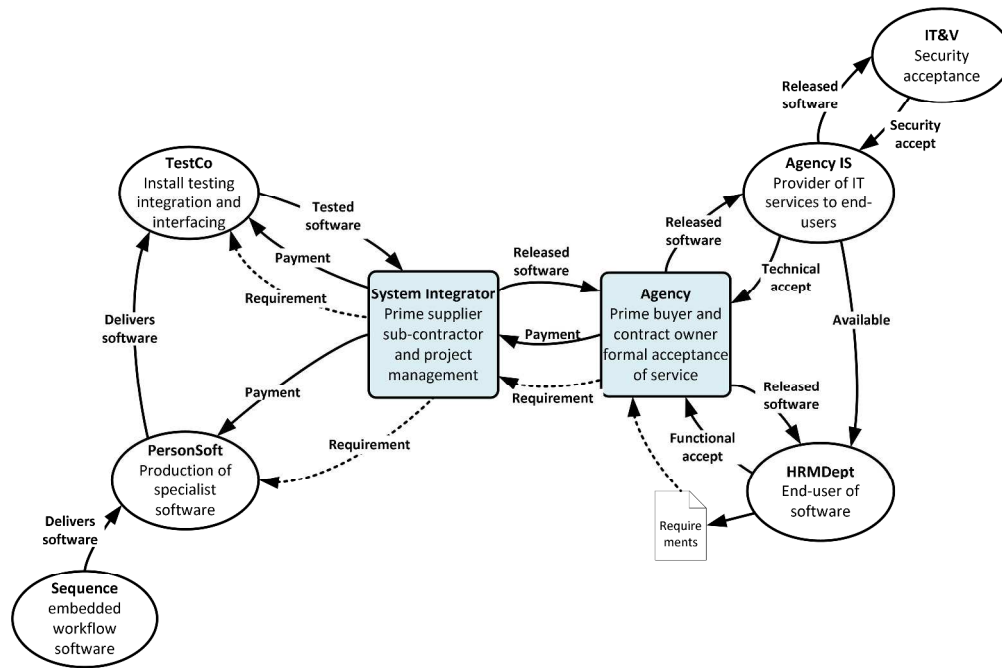
- 1  
2  
3 Lacity, M. & Hirschheim, R. 1993. *Information Systems Outsourcing: Myths, Metaphors and Realities*,  
4 Chichester, Wiley.
- 5 Lacity, M. C., Khan, S., Yan, A. & Willcocks, L. P. 2010. A Review of the It Outsourcing Empirical  
6 Literature and Future Research Directions. *Journal of Information Technology*, 25, 395-433.
- 7 Lacity, M. C. & Willcocks, L. P. 1998. An Empirical Investigation of Information Technology Sourcing  
8 Practices: Lessons from Experience. *MIS Quarterly: Management Information Systems*, 22, 363-  
9 393.
- 10 Lawrence, T. B. 2008. Power, Institutions and Organizations. In: Greenwood, R., Oliver, C., Suddaby,  
11 R. & Sahlin-Andersson, K. (eds.) *The Sage Handbook of Organizational Institutionalism*. SAGE.
- 12 Levina, N. & Orlikowski, W. 2009. Understanding Shifting Power Relations within and across  
13 Organizations: A Critical Genre Analysis. *Academy of Management Journal*, 52, 672-703.
- 14 Li, W., Liu, S. J. & Zhao, Y. B. 2014. Research on Power System Communication Operation and  
15 Maintenance Outsourcing Model. *Applied Mechanics and Materials*, Vol. 651.
- 16 Lindegaard, L. S. 2013. Power and Change: Locating Institutional Change Theories in a Power  
17 Context. *DIIS Working Paper 2013:20*.
- 18 Lukes, S. 1974. Power a Radical View. In *Society and Social Science (1991)*. Open University.
- 19 Magelssen, C., Sanchez, F. & Damanpour, F. 2015. Learning from Outsourcing: The Effects of  
20 Outsourcing Strategy on Organizational Efficiency. *Academy of Management Proceedings*,  
21 2015(1).
- 22 Malhotra, D. & Murnighan, J. K. 2002. The Effects of Contracts on Interpersonal Trust. *Administrative*  
23 *Science Quarterly*, 47, 534-559.
- 24 March, J. C. 1981. Footnotes to Organisational Change. *Administrative Science Quarterly*, Vol.26,  
25 563-577.
- 26 Marshall, D., Ambrose, E., Mclvor, R. & Lamming, R. 2015. Self-Interest or the Greater Good: How  
27 Political and Rational Dynamics Influence. *International Journal of Operations & Production*  
28 *Management*, 35, 547-576.
- 29 May, T. 2005. *Social Research Issues, Methods and Processes*, Maidenhead Berkshire UK, Open  
30 University Press.
- 31 Mclvor, R., Humphreys, P., McKittrick, A. & Wall, T. 2009. Performance Management and the  
32 Outsourcing Process: Lessons from a Financial Services Organisation. *International Journal of*  
33 *Operations and Production Management*, 29, 1025-1048.
- 34 Morgan, G. 1997. *Images of Organisations*, SAGE.
- 35 Oshri, I., Kotlarsky, J. & Willcocks, L. P. 2009. *The Handbook of Global Outsourcing and Offshoring*,  
36 UK, Palgrave Macmillan.
- 37 Parker, D. & Hartley, K. 2003. Transaction Costs, Relational Contracting and Public Private  
38 Partnerships: A Case Study of Uk Defence. *Journal of Purchasing and Supply Management*, 9(3),  
39 97-108.
- 40 Parmigiani, A. & Rivera-Santos, M. 2011. Clearing a Path through the Forest: A Meta-Review of  
41 Interorganizational Relationships. *Journal of Management*, 37, 1108-1136.
- 42 Perren, L. & Megginson, D. 1996. Resistance to Change as a Positive Force: Its Dynamics and Issues  
43 for Management Development. *Career Development International*, Vol. 1(4), 24-28.
- 44 Pettigrew, A. 1973. *Politics of Organization Decision-Making*, London, Tavistock.
- 45 Pfeffer, J. 1981. *Power in Organizations*, Massachusetts, Pitman Publishing Inc.
- 46 Pfeffer, J. 1992. Understanding Power in Organizations. IN *Managing with Power*. Boston: Harvard  
47 Business School Press.
- 48 Pfeffer, J. 1993. Understanding Power in Organisation. In: Mabey, C. & Mayon-White, B. (eds.)  
49 *Managing Change*. Chapman.
- 50 Piderit, S. K. 2000. Rethinking Resistance and Recognizing Ambivalence: A Multidimensional View of  
51 Attitudes toward an Organizational Change. *The Academy of Management Review*, Vol. 25(4),  
52 783-794.
- 53 Pinto, J. K. 2010. *Project Management: Achieving Competitive Advantage*, Pearson 3rd Ed.

- 1  
2  
3 Poppo, L. & Zhou, K. Z. 2013. Managing Contracts for Fairness in Buyer-Supplier Exchanges. *Strategic*  
4 *Management Journal*.
- 5 Quinn, J. B. 1980. Managing Strategic Change. *Sloan Management Review*, 21 (4), 3-20.
- 6 Rouse, A. C. 2007. Is There an Information Technology Paradox? In: Hirschheim, R. A., Heinzl, A. &  
7 Dibbern, J. (eds.) *Information Systems Outsourcing: Enduring Themes, Emergent Patterns and*  
8 *Future Directions*. Berlin: Springer-Verlag.
- 9 Rowlinson, M. 2004. Historical Analysis of Company Documents. In: Cassell, C. & Symon, G. (eds.)  
10 *Essential Guide to Qualitative Methods in Organisational Research*. London: Sage.
- 11 Sanderson, J. 2004. Opportunity and Constraint in Business-to-Business Relationships: Insights from  
12 Strategic Choice and Zones of Manoeuvre. *Supply Chain Management: An International Journal*,  
13 9, 392-401.
- 14 Sanderson, J. 2009. Buyer-Supplier Partnering in Uk Defence Procurement: Looking Beyond the  
15 Policy Rhetoric. *Public Administration*, 87, 327-350.
- 16 Sanderson, J. & Cox, A. 2008. The Challenges of Supply Strategy Selection in a Project Environment:  
17 Evidence from Uk Naval Shipbuilding. *Supply Chain Management*, 13, 16-25.
- 18 Scarbrough, H., Robertson, M. & Swan, J. Developing the Processual Analysis of Institutionalization:  
19 The Case of Resource Planning Systems Innovation. Academy of Management 2008 Annual  
20 Meeting: The Questions We Ask, AOM 2008, 2008.
- 21 Schein, E. H. 1992. *Organisational Culture and Leadership*, Jossey-Bass.
- 22 Senior, B. & Swales, S. 2010. *Organizational Change*, England, Prentice Hall.
- 23 Stenbacka, R. & Tombak, M. 2012. Make and Buy: Balancing Bargaining Power. *Journal of Economic*  
24 *Behavior and Organization*, 81, 391-402.
- 25 Strauss, A. 1978. *Negotiations: Varieties, Processes, Contexts, and Social Order*, San Francisco,  
26 Jossey-Bass.
- 27 Tiwana, A. & Bush, A. A. 2007. A Comparison of Transaction Cost, Agency, and Knowledge-Based  
28 Theory Predictors of It Outsourcing Decisions: A U.S.-Japan Cross-Cultural Field Study. *Journal of*  
29 *Management Information Systems*, 24, 259-300.
- 30 Van de Ven, A. H. 2007. *Engaged Scholarship: A Guide for Organizational and Social Research*, Oxford,  
31 UK, Oxford University Press.
- 32 Vanneste, B. S. & Puranam, P. 2010. Repeated Interactions and Contractual Detail: Identifying the  
33 Learning Effect. *Organization Science*, 21, 186-201.
- 34 Vanpoucke, E. & Veereke, A. 2010. The Predictive Value of Behavioural Characteristics on the  
35 Success of Strategic Alliances. *International Journal of Production Research*, Vol. 48, 6715-6738.
- 36 Verma, V. K. 1998. Conflict Management. In: Pinto, J. (ed.) *Project Management Handbook*. The  
37 Project Management Institute.
- 38 Waddington, D. 2004. Participant Observation. In: Cassell, C. & Symon, G. (eds.) *Essential Guide to*  
39 *Qualitative Methods in Organisational Research*. London: Sage.
- 40 Weber, L. & Mayer, K. 2011. Designing Effective Contracts: Exploring the Influence of Framing and  
41 Expectations. *Academy of Management Review*, 36, 53-75.
- 42 Whitley, E. A. & Willcocks, L. 2011. Achieving Step-Change in Outsourcing Maturity: Toward  
43 Collaborative Innovation. *MIS Quarterly Executive*, 10, 95-107.
- 44 Willcocks, L., Feeny, D. & Olson, N. 2006. It Outsourcing and Retained Is Capabilities: Challenges and  
45 Lessons. *European Management Journal*.
- 46 Willcocks, L. P. & Kern, T. 1998. It Outsourcing as Strategic Partnering: The Case of the Uk Inland  
47 Revenue. *European Journal of Information Systems*, 7, 29-45.
- 48 Wu, D. J., Ding, M. & Hitt, L. M. 2013. It Implementation Contract Design: Analytical and  
49 Experimental Investigation of It Value, Learning, and Contract Structure. *Information Systems*  
50 *Research*, 24, 787-801.
- 51 Yin, R. K. 1994. *Case Study Research: Design and Methods Second Edition*, SAGE.
- 52 Yin, R. K. 2011. *Qualitative Research from Start to Finish*, New York, The Guilford Press.
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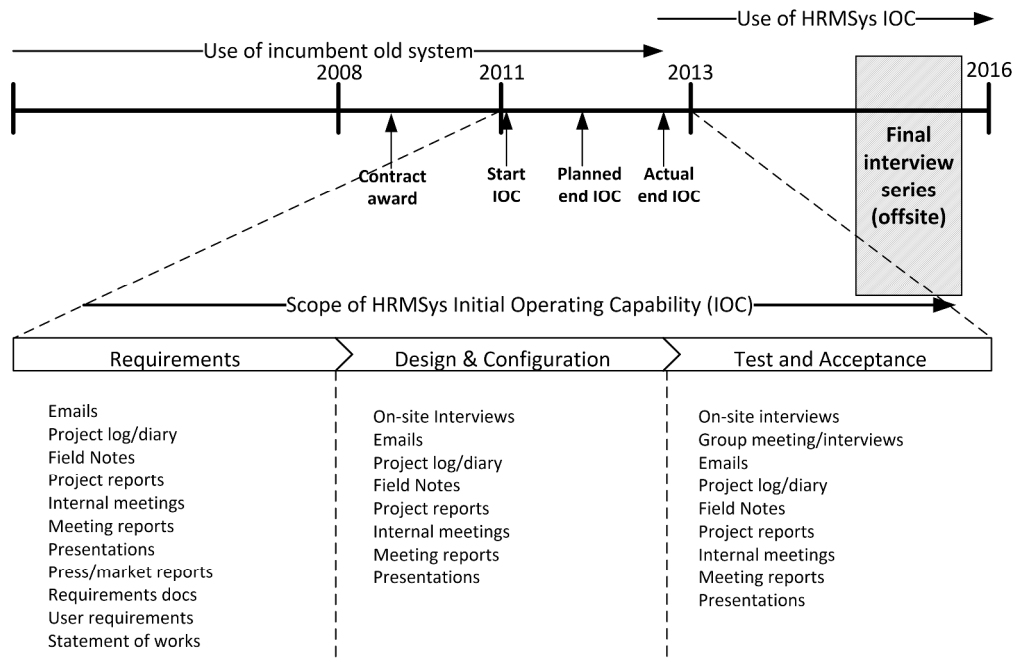






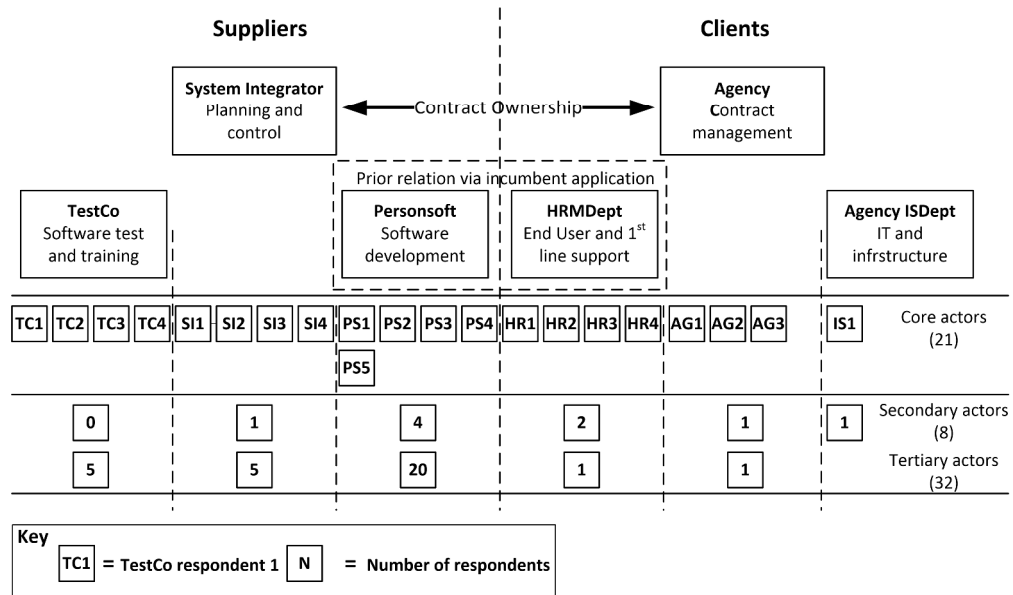
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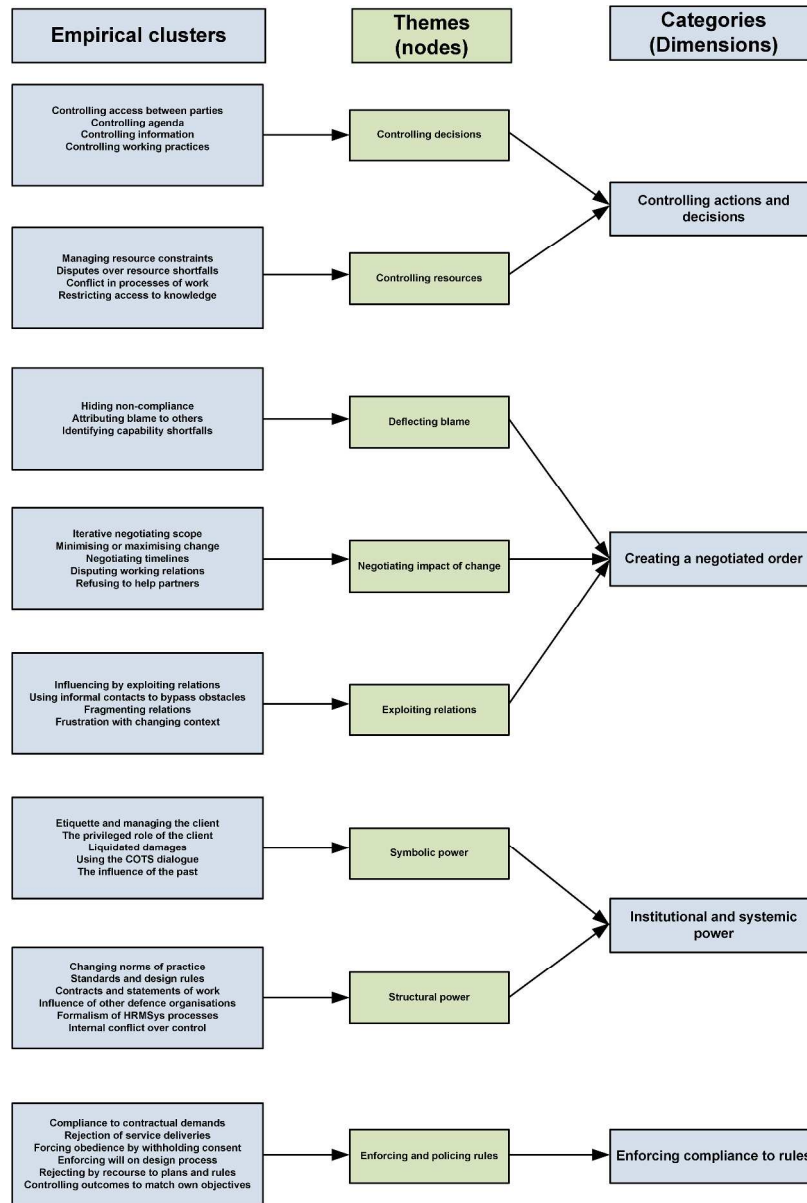
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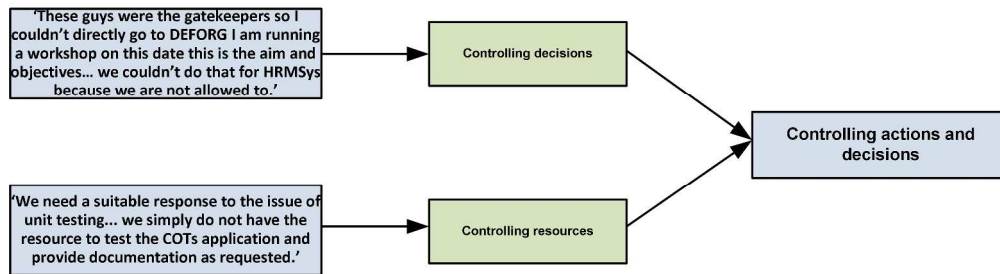


Table 1 – Dimension control over actions

Quotations	First order concept clusters	Theme (nodes)
<p><i>'These guys were the gatekeepers so I couldn't directly go to DefOrg ... we couldn't do that for HRMSys because we are not allowed to.'</i> [Project Manager SI]</p> <p><i>'I just called Eric who is in meeting ...we should stop exchanging e-mails with customer for the reason that it looks like we increase ... risk for both your project at HRMDEPT and our common project HRMSYS.'</i> [Project Support SI]</p>	<p><b>Controlling access</b> Access between suppliers and buyers strictly controlled.</p>	<p><b>Controlling decisions</b></p>
<p><i>'Back to the summer of 2011, I proposed to organize some meetings to get the users feedback and their current issues. PersonSoft was against this.'</i> [Test Director TestCo]</p> <p><i>'Since it was decided that I shall not participate to this use cases round table meeting, some questions that I hoped to have them clarified by the end of the meeting.'</i> [Test-Director TestCo]</p>	<p><b>Controlling the agenda</b> Control of who is allowed to raise issues.</p>	
<p><i>'Please note this is just an email between PersonSoft and HRMDept - I have deliberately not included SI or Agency as we are desperate ... we do not cause any further delays.'</i> [Project Manager HRMDept]</p> <p><i>'So from that I was wondering do people actually know what we doing here...was all very new it is like putting a postcard in a newsagent who's gonna actually read that.'</i> [Business Analyst PersonSoft]</p>	<p><b>Controlling information</b> Control of what information is released to whom.</p>	
<p><i>'We also suggested that there may be some onerous project tasks currently scheduled ... (which could) ...free up more productive 'development' days.'</i> [Services Director PersonSoft]</p> <p><i>'TestCo are only to test those issues marked in the original spreadsheet ... So please concentrate your efforts on these (only).'</i> [Technical Consultant PersonSoft]</p>	<p><b>Controlling working practices</b> Proposing when and how work could be done.</p>	
<p><i>'We need a suitable response to the issue of unit testing ... we simply do not have the resource to test and provide documentation ...there is no way we can provide this to TestCo.'</i> [Test Manager PersonSoft]</p> <p><i>'I think PersonSoft themselves were under resourced and I still think they probably are... (if not) we wouldn't have had problems that we had at IOC.'</i> [HRMDept Director]</p>	<p><b>Managing resource constraints</b> Resources were chronically limited throughout the project.</p>	<p><b>Controlling resources</b></p>
<p><i>'We agreed on a series of WebEx online meetings ...we were confronted with repetitive cancellation and only a limited number of sessions were held.'</i> [Letter to PersonSoft]</p>	<p><b>Disputes over resource shortfalls</b> SI issued several letters complaints for continuous delivery failure against timelines.</p>	
<p><i>'The other thing that was missed was there was knowledge transfer for TestCo to do their testing. There was no technical knowledge transfer for HRMSys.'</i> [Technical Services PersonSoft]</p> <p><i>'...no enabling was done; we are blocked by various interpretations that shall be performed.'</i> [Test Consultant TestCo]</p>	<p><b>Restricting access to knowledge</b> PersonSoft restricted availability to required knowledge.</p>	

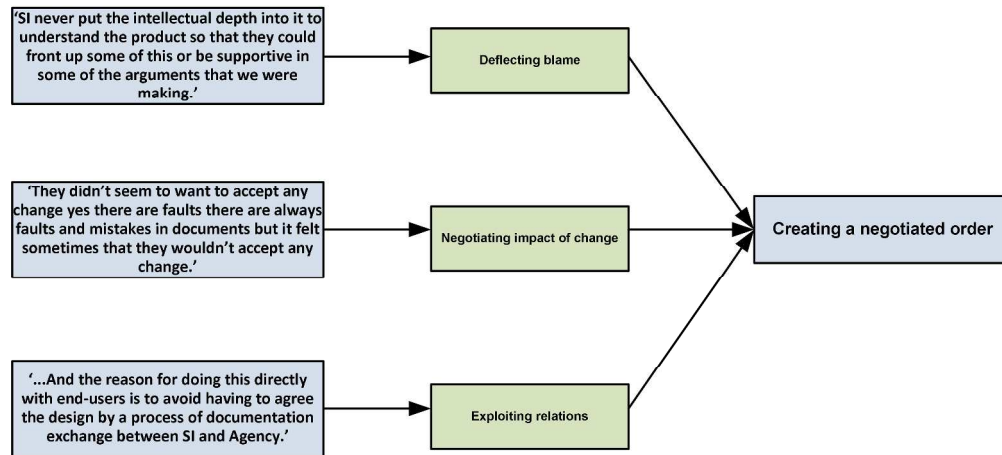


Table 2 – Dimension creating a negotiated order

Quotations	First order concept clusters	Theme (nodes)
<p>'I guess we need to be very careful in how we work through clarifying this... we don't want them to think we have been dishonest.' [Sales Support PersonSoft]</p> <p>'The test waiver issue is the major remaining risk ... The story you provided until now is not working since the testing of some waived requirements failed.' [Services Director SI]</p>	<p><b>Hiding non-compliance</b></p> <p>HRMSys was based on the old technology and was not compliant to the bid documents this had to be hidden.</p>	<p><b>Deflecting blame</b></p>
<p>'In conclusion we have it is clear that TestCo / SI are unprepared and geared up for the next phase of this project and that we may need to apply some to pressure to ensure that they are meeting their obligations.' [Technical Consultant PersonSoft]</p> <p>'SI never put the intellectual depth into it to understand the product themselves so that they could front up some of this.' [Project Manager PersonSoft]</p>	<p><b>Attributing blame to others</b></p> <p>Failures in the project were attributed by partners to lack of understanding by other or poor processes and vague requirements.</p>	
<p>'Lack of experience in development of the documentation and poor input of the business need meant requirements took a long time to develop.' [Business Consultant PersonSoft]</p> <p>'I'll be honest I think one of the problems initially was that's the first time I've been involved with use cases. In that way.' [Project Manager HRMDept]</p>	<p><b>Identifying capability shortfalls</b></p> <p>Individuals openly attributed failures in delivery by a lack of experience in the demanded methods and processes.</p>	
<p>'According to our interpretation, these changes should be cost neutral so no extra funding will be necessary, and thus (also) precluding a significant impact (on the schedule).' [Contract Manager Agency]</p> <p>'I don't think we ever achieved one single impact statement or one real change it was basically fixed from the start to finish with just a bit of shuffling around here and there.' [Business Consultant PersonSoft]</p>	<p><b>Iteratively negotiating scope</b></p> <p>Scope negotiations during requirements and design sought to match requirements to delivery capabilities.</p> <p><b>Minimising/maximising change</b></p> <p>Buyers sought to minimise the impact whilst suppliers sought to maximise impact or to use the changes to de-scope the remainder of the project to fit capabilities.</p>	<p><b>Negotiating impact of change</b></p>
<p>'I'm afraid it is too late to change the schedule now. We must stick to the agreed planning ... and a project is not only technical but also political.' [Project Support SI]</p> <p>'As we discussed many times together during the bid, the current plan is impossible to meet and we therefore need to force through better and more efficient ways of working.' [Services Director PersonSoft]</p>	<p><b>Negotiating timelines</b></p> <p>The timeline was in constant dispute and constantly varying as delays in design, configuration and testing occurred.</p>	
<p>'We could had a more rigorous and better process if dedicating a fixed time period when testers and PersonSoft to meet each other.' [Test Analyst TestCo]</p> <p>'Unfortunately I won't be able to do an enabling session on Thursday. However, I've managed to answer some questions via email.' [Consultant PersonSoft]</p> <p>'Neither you or I have the time to handhold them; They need to go through (name) I am afraid. That means they will need to wait.' [Technical Consultant PersonSoft]</p>	<p><b>Disputing working arrangements</b></p> <p>Common approaches and tools were partially applied across the project but there were continuous gaps.</p> <p><b>Refusing to help partners</b></p> <p>There were continuous requests from TestCo to PersonSoft for enabling and knowledge transfer which was blocked.</p>	
<p>'The walkthroughs, conference pilots etc. are defined in our approach and was agreed as a way of us 'demonstrating' compliance to the requirements directly to HRMDept.' [Services Director PersonSoft]</p> <p>'...And the reason for doing this directly with end-users is to avoid having to agree the design by a process of documentation exchange between SI and</p>	<p><b>Influencing by exploiting relations</b></p> <p>The use of demonstrations and pre-releases was used as a process of achieving buy-in by PersonSoft and an attempt to exploit past relationships.</p>	<p><b>Exploiting relations</b></p>



Quotations	First order concept clusters	Theme (nodes)
<p>Agency. This way we can gain support from the user community to curb the worst excesses of Agency.' [Project Manager PersonSoft]</p>		
<p>'I mentioned this to (name) a couple of weeks ago and he was OK with the principle of most effective use of Team time. I also mentioned it to (name) over lunch at the kick off. We should be able to make this work.' [Sales Manager PersonSoft]</p> <p>'Informal communication on the development of the UCs is beneficial to the process and, hopefully, will reduce the continuing slippage of the activity dates in the schedule.' [HRMDept Manager]</p>	<p><b>Using informal contacts to bypass obstacles</b></p> <p>At an early stage PersonSoft arranged by informal meetings were held to influence progress and force a change in the design method more in line with previous practice.</p>	
<p>'PersonSoft feel 'hung out to dry' on occasions... (There is) no partnership with HRMDept anymore almost seems hostile sometimes and the history with HRMDEPT is a mixed blessing.' [Development Manager PersonSoft]</p> <p>'(Name) should (have) grabbed those two by the throat and said I'm going to be gone in a year or year and a half and I want this...but he didn't he stepped back and let Agency, SI and ourselves fight it out.' [Services Director PersonSoft]</p>	<p><b>Fragmenting of relations</b></p> <p>PersonSoft and HRMDept maintained direct relations outside of HRMSys project that drew on history but this was ending.</p> <p><b>Frustration with changing context</b></p> <p>Changes in key players, who had no prior history, changed the dynamic between to be sometimes conflictual.</p>	

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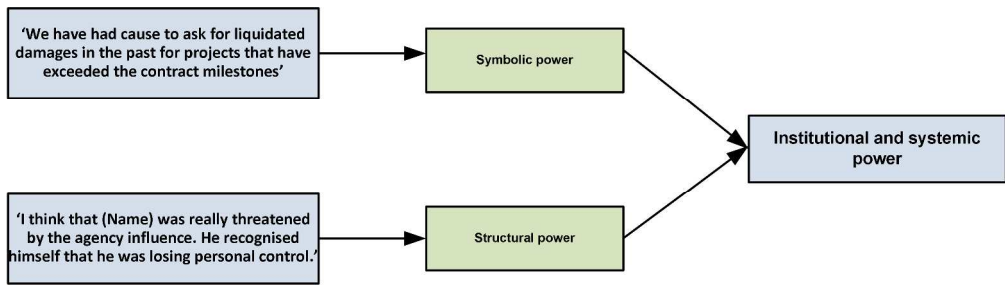


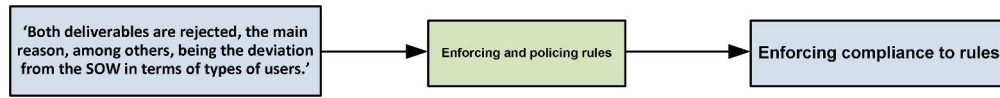
Table 3 – Dimension institutional and systemic power

Quotations	First order concept clusters	Theme (nodes)
<p>'...such information - especially when it concern HRMSys - may not be sent to the customer. Before doing so we must first discuss and only then the customer can be informed by us.' [Project Manager SI]</p> <p>'Almost every intervention from HRMDept management reset the so fragile connection between TestCo and PersonSoft ...we forgot to react as a team.' [Test Director TestCo]</p>	<p><b>Etiquette and managing the client</b> How client should be approached and treated was strictly controlled and specified.</p> <p><b>The privileged role of the client</b> Buyer side cut across communication lines when it suited their interests.</p>	<p><b>Symbolic Power</b></p>
<p>'...we have had cause to ask for liquidated damages in the past for projects that have exceeded the contract milestones.' [Contract Manager Agency].</p> <p>'We'll have to submit the updated PMS), such that Agency can update the (schedule of supplies and services based on this in order to avoid 'liquidated damages'.' [Project Manager System House].</p>	<p><b>Liquidated damages</b> Threats of liquated damages became an accepted tool of behavioural control across all actors in the project.</p>	
<p>'We sold a cots package in the bid and all the discussion about current or cots basically saying it was all there and there was nothing to do and we spent the first six months of the project backpedalling.' [Business Analyst PersonSoft]</p> <p>'I believe even the AGENCY guys have not lost sight of the fact that the procedures and COTS package were being made to fit to a set of bespoke functional requirements.' [Services Director PersonSoft]</p>	<p><b>Using the COTS dialogue</b> A COTS solution implied functions being complete and ready - only requiring minor modification.</p>	
<p>'...it was the old relationship you used to come to us and we used to sort it out. Exactly, and if we needed money we got it.' [Director HRMDept]</p> <p>'The incumbent was accepted as a baseline so no functionality would be lost in HRMSYS and as a result comes on the critical path.' [ Project Manager HRMDept]</p>	<p><b>The influence of the past</b> In the background was a reference to older ways of working where there was much less formality.</p>	
<p>'I think that's where the inexperience of us came through because we were used to working in that way. And it did take two, three, four months before we found our feet and oh (shit) this is completely different from what I'm doing now. So it's a little bit of that we were so used to working on-the-fly working very quickly at a very rapid pace but when it came to doing design phases and testing phases we were like lost.' [Business Consultant PersonSoft]</p>	<p><b>Changing norms of practice</b> The less formal and loose working had to change to a formal approach and caused problems as this new way of working had to be learnt.</p>	<p><b>Structural Power</b></p>
<p>DejOrg (2007), DejOrg Architecture Framework Version 3 CHAPTER 4 Architecture Views and sub view, DejOrg Documents C-M(2002)49 and AC/322-D/1[DOC:REF:STAN]</p> <p>SECURITY OPERATING PROCEDURES (SecOPs) for COMMUNICATION and INFORMATION SYSTEMS (CIS) [Doc:REF:STAN]</p>	<p><b>Standards and design rules</b> The rules surrounding the project covered all aspects of management, design, processes of development.</p> <p><b>Contracts and statements of work</b> The contract specified a fixed price, scope and timeline for the project three years in advance of the project.</p>	
<p>'As we move towards FOC there is a much broader user community the system will be exposed to, so we must engage with the broader user community.' [Development Manager PersonSoft]</p> <p>'I had a very strained telephone conversation with (Name). He is clearly incandescent with the current status and the proposed roadmap' [Sales Director PersonSoft]</p>	<p><b>Influence of other defence organisations</b> PersonSoft were developing systems for other clients that drew resource and focus away from HRMSys that was seen as a threat to HRMDept hegemony over the design direction.</p>	
<p>'I think the whole contracting, procurement, waterfall, define everything upfront and define the timescales from them to work within then contract it</p>	<p><b>Formalisation of HRMSys processes</b> The formalism of HRMSys meant</p>	

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Quotations	First order concept clusters	Theme (nodes)
<p><i>and then nail your suppliers to the wall was not the way we had been working before.</i> [Services Director PersonSoft]</p> <p><i>'The fact is that we had with the relationship we had over 15 years a one to one relationship. Instead we were dealing (with a) loop all the way around from Agency and SI and back to the end users and this contributed significantly (to the problems).'</i> [Services Director PersonSoft]</p>	<p>new processes at variance with past practice that also limited freedom and reduced innovation.</p> <p><b>Internal conflict over control</b> Control for HRMDept and PersonSoft was being transferred from them to others within the project hierarchy.</p>	

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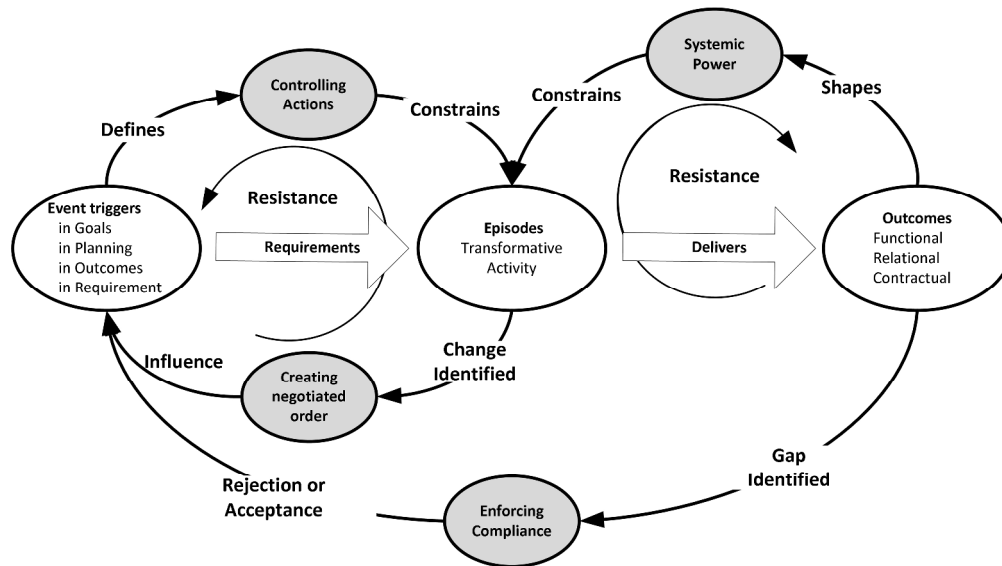


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Table 4 – Dimension enforcing compliance to rules

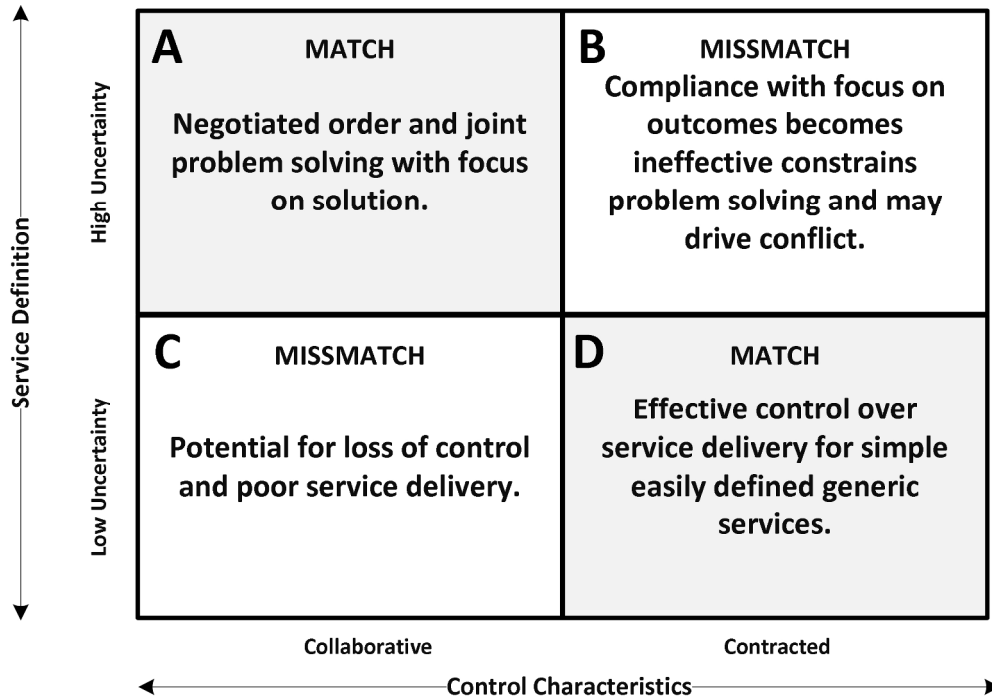
Quotations	First order concept clusters	Theme (nodes)
<p>'It is expected that for the next HRMSYS release ... SI must finally adhere to the prescribed processes and provide comprehensive documentation.' [Project Manager Agency]</p> <p>'I cannot remember any change in approach ever being accepted.' [Project Manager PersonSoft]</p>	<p><b>Compliance to contractual demands</b></p> <p>All aspects of the delivery, processes, documentation and management standards were contracted.</p>	Enforcing and policing rules
<p>'The remainder of the FAT test was cancelled with the understanding that it will need to restart at a later date.' [Technical Consultant PersonSoft]</p> <p>'If these types of errors are carried through into the formal FAT/SAT testing, HRMDEPT would have to indicate that the test had failed.' [Manager HRMDept]</p>	<p><b>Rejection of service deliveries</b></p> <p>Deliveries were rejected for even slight deviation from the contracted norms.</p>	
<p>'(I) remember that very uncomfortable meeting that we had with DefOrg where they basically held those errors to ransom and if you don't fix them this was gonna happen' [Business Analyst PersonSoft]</p> <p>'Whilst it's got a wide range of functional capabilities there are some real anomalies in there and they were determined on bringing those out and fixing them and not signing off on acceptance unless we went right back to core product to fix some stuff that had been like that forever.' [Business Analyst PersonSoft]</p>	<p><b>Forcing obedience by withholding consent</b></p> <p>Buyers forced suppliers to complete all deliveries within the contracted milestone by withholding consent.</p>	
<p>'HRMDept are insisting that their (own software) is turned on whilst conducting the UAT; the problem here is they have over 350 UCs and I suspect won't test and review all of these prior to the UAT'. [Business Analyst 2 PersonSoft]</p> <p>'I must stress that any discussion or agreement on the possible transfer of capabilities or functions from HRMDEPT is an internal matter.' [Director HRMDept]</p>	<p><b>Enforcing will on design process</b></p> <p>Buyers forced the suppliers to use rules and approaches in line with own objectives even through outside contract.</p>	
<p>'System Integrator (and DefOrg) has taken the plan as stated three years ago as the baseline – this plan is not sustainable.' [Project Leader PersonSoft]</p> <p>'Both deliverables are rejected, the main reason, among others, being the deviation from the SOW in terms of types of users.' [Project Manager Agency]</p>	<p><b>Rejecting by recourse to plans and rules</b></p> <p>Deliveries were rejected for non-compliance to planned objectives that were redundant.</p>	
<p>'I must say it's a real shock, and not an approach that I support. To push for additional IOC funding at this point is highly undesirable.' [Services Director PersonSoft]</p> <p>'... with SI were seeing the introduction of a significant competitor ... so I think whatever he wanted to get something in there that was not delivered by a major threat.' [Sales Director PersonSoft]</p>	<p><b>Controlling outcomes to align with own objectives</b></p> <p>Parties took decisions in line with own objectives rather than superordinate goals.</p>	



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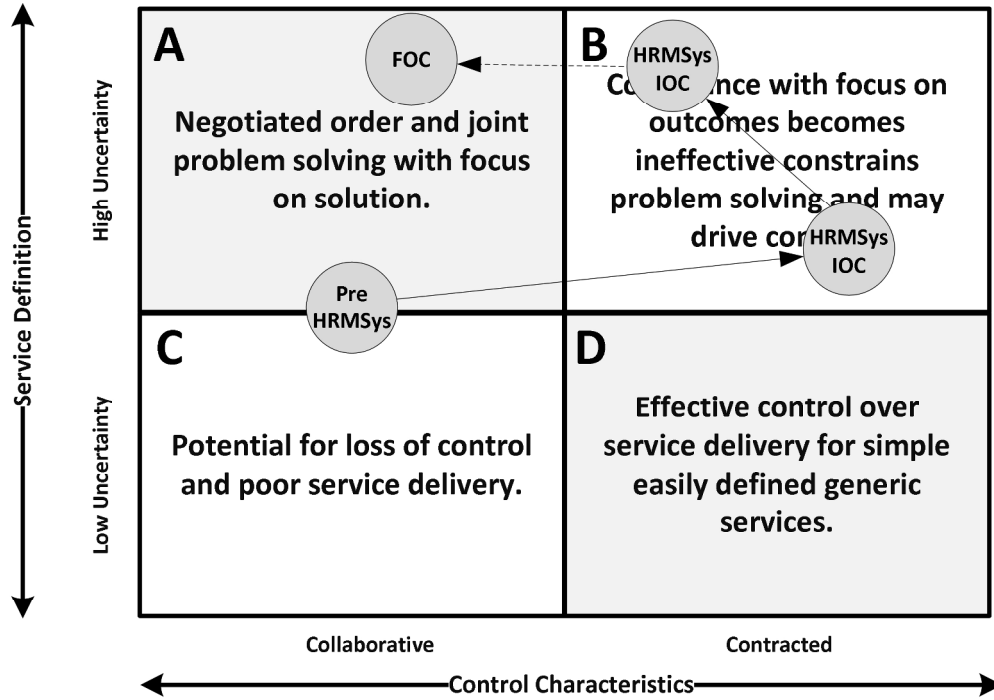
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