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An Ethnographic Study of the Enactment of Service Level Agreements in Complex IT-intensive Business-to-Business Services.

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ABSTRACT

Contracting information technology (IT) services externally (or "outsourcing"), is now common for most organisations. These IT services can range from commoditised pay-by-use services (such as infrastructure-as-a-service) to complex, IT-intensive business-to-business (CITi-B2B) services (such as application hosting, applications maintenance, Desktop Support, Help Desk and multi-sourcing integration). The latter, characterised by their large scale, multi-year contracts, customisation and inter-dependencies with other IT service providers in a multi-sourcing context, are the focus of this work. Contracts for these services typically consist of a master agreement and a separate service level agreement (SLA) for each service. The master agreement defines the overall terms and conditions of the contract and each SLA describes the service, quantifiable performance targets to be met in its enactment, mutual obligations, requirements, expectations, scope, pricing, incentives and penalties.

Formulating and enacting these SLAs, however, present two challenges in managing CITi-B2B services. First, SLAs are somewhat high-level representations of what is to happen and cannot therefore encompass the diversity of events that unfold over time during the course of their enactment. Second, performance measures in SLAs are generally restricted to what is quantifiable and are therefore unable to account for many of the nuances of adapting to emergent conditions in practice. Inevitably, there is a gap between what is contractually represented and what actually happens.

Master agreements anticipate this to some extent. Typically, they contain over-riding clauses to address concepts such as requiring the provider to always act in the best interests of the customer and to perform functions implicit in the contract: “manage the whole” as it is sometimes expressed. Frameworks have also been developed for managing the governance of contractual relationships and for some of the operational processes of enactment (IT service management) which provide a structure for managing and improving operational processes of CITi-B2B service engagements.

Previous research related to CITi-B2B service engagements has principally focused on application development, outsourcing strategy, success factors and risks, and relationship management. To a somewhat lesser extent, it has addressed IT governance, service management, and SLAs. Little research however has investigated the actual practices of how CITi-B2B SLAs are enacted over time in changing conditions or exploring the potential for further value realisation in those practices.

The aim of this study is to contribute to possibilities for value creation in the growing market for CITi-B2B services by addressing a perceived gap in research on the practices of SLAs enactment in those services. To do this, our goal is to develop a rich understanding of how those who participate in enacting an SLA manage the conditions of its enactment, by unpacking their practices and identifying g patterns of practice. The importance of such an understanding to value realisation in the growing CITi-B2B services market is that by identifying value-generating but under-represented patterns of practice, those practices become amenable to representation, improvement and innovation in the contracting and managing of CITi-B2B services to better reflect the multi-faceted generation of value in these settings.

We have adopted the relational theory of contract as our theoretical perspective for this study. It describes contracts in enactment as complex, emergent, adaptive, and context-dependent phenomena that include measurable, non-measurable and un-measured qualities.

Guided by this nuanced view of contracts, we conducted a nine-month ethnographic study of the enactment of an SLA for a service provided by a multinational IT

services provider for a global financial services customer, as part of a multi-sourced web of services. Following the trail of enactment of the service from multiple perspectives through detailed contextualised observation and interactions with participants, we uncovered unwritten and often unspoken rules, assumptions, and ambiguities that characterised the SLA enactment.

Our analysis of these showed how systematic adaptations to prevailing conditions constituted a discernible cycle within enactment. That cycle was characterised by: emergent conditions that triggered relational interactions among participants (including negotiating and informal knowledge sharing), often culminating in decisions to adapt the terms of the SLA in order to realise perceived business value. The cycle, we contend, provided a way of managing the gap between the service as enacted and the service as represented in the contract and in its formal governance and service management processes, while still serving the contract's over-riding requirement that the implicit intent of the contract and the customer's best interests be recognised.

The cycle was enabled by three informal mechanisms that were routinely deployed by participants although not formally expressed. These were: learning to understand the service context; negotiating; and adapting to emergent conditions. We refer to these collectively, as relational capability. Neither trivial nor *ad hoc*, the mechanisms of relational capability were anticipated, well understood, systematic, and sanctioned. They depended on: a complex set of skills and knowledge; self-directed experiential learning; and effective judgement. Significantly, they were also critical to coordinating troubleshooting in high severity service failures in a multi-sourcing environment where *ad hoc* teams of specialists from multiple providers negotiated resolutions in conditions of complexity and uncertainty that precluded precisely defined procedures.

These findings suggest that the processes of the three informal mechanisms identified in the cycle of enactment are amenable to discovery and representation and are thereby capable of yielding information about SLA enactment not previously captured or exploited. The importance of this for improving value realisation in formulating SLAs for CITi-B2B services, and for managing their enactment, is two-

fold. First, this information could provide feedback enabling SLAs to become a continuously evolving learning instrument. Second, related instruments could be developed to further capture and exploit this information for process refinement, innovation, capability development, and SLA design.

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LIST OF ABBREVIATIONS

BAU	Business as usual
B2B	Business to business
B2C	Business to customer
CITi-B2B	Complex IT-intensive business to business
COBIT	Control Objectives for Information and Related Technology
EUC	End user computing
EUCS	End user computing service
eSCM	eSourcing Capability Model
IT	Information Technology
ITIL	Information technology infrastructure library
ITSM	Information technology service management
MSA	Master service agreement
SLA	Service level agreement

STATEMENT OF ORIGINAL AUTHORSHIP

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

Signature: _____

Date: _____

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CHAPTER 1: Introduction

1.1 Background and motivation

The service sector plays a predominant and growing role in most economies, (World Bank, 2013)driven largely by information technology (IT) developments such as increased network capacity, falling costs of processing power and open standards. Productivity levels in the service sector, nevertheless, compare unfavourably with the manufacturing and agricultural sectors. This has contributed to intensified research on a range of service-related topics in recent years (Spohrer et al., 2007). The focus of our research is value creation through the contracting of complex, IT-intensive business-to-business (CITi-B2B) services, the global market for which is estimated at nearly $918 billion (Karamouzis and Rold, 2014). These services are important to business growth principally because they allow organisations to lower their overall IT costs by contracting external specialist organisations to provide IT functions as services (Levina and Ross, 2003).

CITi-B2B services (such as application hosting, applications maintenance, end-user computing, Help Desk and multi-sourcing integration) are characterised by customised multi-year contracts, enacted in complex and emergent conditions where the service context is not dyadic but consists of inter-dependencies with additional IT service providers, on average more than ten (Huntley, 2013), typically in a global

context. The external sourcing arrangements of the Dutch bank ABN AMRO typify this. IBM provides infrastructure services, Accenture provides application development services and TCS and Infosys provide application support services (Bapna et al., 2013). Further services such as telecommunications are also sourced from external providers. While there is a growing trend in the CITi-B2B services environment away from these customised human-mediated service systems to more arms-length "managed services", focused on measuring value in terms of outcomes rather than activities (Karamouzis and Rold, 2014), the market for CITi-B2B services remains significant.

Fundamental to the governance and management of CITi-B2B services are contracts which consist of a master agreement with separate service level agreements (SLAs) for each service. The master agreement defines the overarching terms and conditions of the contract, such as mutual obligations, relationship roles and responsibilities, governance roles, reporting and payment. Each SLA defines the specific terms for that service such as requirements, expectations, key performance criteria, mutual obligations and the scope, pricing and level of the service (Cullen and Willcocks, 2003). For example, the terms of an SLA for applications hosting would typically include a description of that service along with metrics by which the customer can monitor the extent to which the provider's performance complies with the agreement. The metrics would include agreed targets for: the percentage of time the service is available during its hours of operation; its level of reliability; support response times; problem resolution times; transaction response times; and the number of transactions handled within a specified period. The SLA would also include reporting and disaster recovery procedures, specifications of charges, penalties and incentives and the signatories to the agreement.

Formulating and enacting[1] SLAs, however, present two particular challenges in managing CITi-B2B services, particularly in multi-sourcing[2] environments. First, as discussed, SLAs are high level abstract representations of what is to happen and so can neither encompass the diversity of events that unfold over time during the course of their enactment, nor account for ambiguities and assumptions which inevitably affect enactment (Harmon et al., 2006). Second, as we saw in the example above, performance measures in SLAs are quantifiable, meaning that much of what happens on a daily basis to make a service work, such as adapting to conditions that inevitably change over time, is un-measured or un-measurable and therefore not represented in the SLA. For example, participants[3] in enacting an SLA for a Help Desk service may develop their own informal processes for assigning priorities in Help Desk queues, interpreting what constitutes business value in a particular instance based on their experience over time. In a multi-sourced environment, where one provider's ability to meet their SLA targets depends on other providers meeting their targets, for example, participants from an application services provider and a telecommunications provider may cooperate and share resources in a way not anticipated in their SLAs, to ensure that the customer experiences uninterrupted, integrated, end-to-end service.

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[1] We use the term "enact" throughout this thesis in its generic sense of putting an idea, or other abstraction such as an SLA, into practice (Oxford Dictionaries Online, 2014). Thus, we use the term "contract enactment" to encompass what actually happens in practice, rather than the narrower legal term "contract performance", which refers to the parties to a contract having completely fulfilled their obligations to one another (The Law Handbook On-line, 2014).

[2] "Multi-sourcing" refers to the practice of multiple, interdependent service providers co-ordinated to provide integrated end-to-end services.

[3] We use the term "participant" to refer to an individual involved in an activity to enact a service whether from the service provider or the customer.

To some degree, master agreements anticipate the challenges of this inevitable gap between contractual representation and actual practice. They do this typically by including over-riding clauses that address issues such as requiring the provider to always act in the best interests of the customer and to perform functions implicit in the contract. Informally, these are sometimes referred to as "sweep clauses" and "manage the whole" clauses. IT governance and service management frameworks and standards, such as COBIT, ITIL, ISO/IEC 20000 and eSCM, also address many, but not all, aspects of enactment by guiding the establishment, control, monitoring and improvement of processes to manage risk and ensure that the terms of the SLA are met. These frameworks address many, but not all, aspects of enactment.

Previous research related to CITi-B2B service engagements has principally focused on application development, outsourcing strategy, success factors and risks, and relationship management (Lacity et al., 2009). To a somewhat lesser extent, it has addressed IT governance, service management and SLAs (Iden and Eikebrokk, 2013). Research relating to enacting SLAs has centred primarily on relational governance, which Lacity et al. (2009) describe as covering "the softer issues of managing client-supplier relationships" including trust, communication, sharing and cooperation. Here the term "relationship" aggregates numerous activities of multiple participants and focuses mainly on governing and managing the relationship between provider and customer at the executive and managerial levels, rather than the complexity of value creation processes and the variety of interactions contained therein (Blois, 2002). Little research on CITi-B2B services to date has focused on understanding the day-to-day exigencies and adaptations of practice where the unit of analysis is at the level of "the characteristics of micro interpersonal linkages" (Whetten, cited in Blois, 2002) and how such an understanding might be used to realise further value in CITi-B2B service engagements.

In the rest of this chapter, we present the aims of this research (Section 1.2), a description of services as systems (Section 1.3), an overview of our research approach (Section 1.4) and the key contributions of the research (Section 1.5). Finally, we present the structure of this thesis and a preview of the remaining chapters (Section 1.6).

1.2 Aims of this research

The aim of this study is to contribute to possibilities for value creation in the growing market for CITi-B2B services by addressing a perceived gap in research on the practices of SLAs enactment in those services. To do this, our goal is to develop a rich understanding of how those who participate in enacting an SLA manage the conditions of its enactment, by unpacking their practices and identifying g patterns of practice. The importance of such an understanding to value realisation in the growing CITi-B2B services market is that by identifying value-generating but under-represented patterns of practice, those practices become amenable to representation, improvement and innovation in the contracting and managing of CITi-B2B services to better reflect the multi-faceted generation of value in these settings.

1.3 Services as systems

Drawing on the literature of management, economics, marketing and service science (Normann and Ramirez, 1998, Gadrey, 2002, Vargo and Lusch, 2004, Maglio et al., 2009), we describe a service as: a system of provider-customer interactions and interventions which dynamically configure heterogeneous resources in emergent conditions to co-create value by transforming an entity (material or non-material) to a state agreed in a value proposition[4].

Take the provision of a medical service, for example. The value proposition is that the doctor will apply her medical skill, with the cooperation of the patient, to improve his state of health in return for payment. The patient and doctor interact through describing symptoms, examining, questioning and answering. Based on this, the doctor intervenes to transform (improve) the patient's state of health by

[4] More details of this description and how we developed it can be found in Chapter 2.

prescribing medication or a procedure and the patient intervenes to improve his state of health by taking the medication or undergoing the procedure. In addition to the personal resources the patient and doctor contribute to the transformation, such as time and skills, other resources, such as technology and access to expert advice are configured as needed to realise the value proposition. An emergent condition might be that the patient is allergic to the medication and returns to the doctor. The doctor and patient adapt to this new condition by prescribing and taking the new medication respectively. If the patient's health improves then value has been co-created and realised as proposed. Table 1 below illustrates this example.

Table 1 Example of a service system

Element of service system representation	**Example**
Value proposition	doctor and patient will cooperate to transform the patient's state of health by raising it to an improved level in exchange for payment
Entity to be transformed	patient's state of health
Provider	doctor
Customer	patient
Relational interactions	describing symptoms, examining, questioning, answering - to formulate diagnosis
Interventions	doctor gives the patient medication; patient takes it
Resources configured	time, skills, pharmaceutical information, location
Emergent conditions	patient is allergic to medication,
Relational interactions	patient tells doctor of allergic reaction
Adaptive intervention	doctor changes medication; patient takes it
Transformed entity	patient's state of health improves

A strength of such a description of a service system for this research, is that it provides a framework for us to examine a variety of elements of the day-to-day practices of participants at a relatively low level of granularity.

We describe an IT-intensive service system is one which is largely reliant on IT for the activities and transformations of the system and in which the object to be transformed is generally codified information in electronic form.

1.4 Research approach

Macneil's (1980) relational theory of contract provides a theoretical perspective for understanding the enactment of an SLA as a service system. Relational theory of contract challenges the classical view of a contract as a discrete and static entity with precise measurements of easily measured objects whose non-performance is remediated with penalties. It contends that the failure of this view to account for the predominantly social or relational properties of contracts produces incoherence, empirical irrelevance, and explanatory failures. Empirical evidence, he argues, shows that contracts as enacted are complex, emergent, and context-dependent phenomena. They include measurable, non-measurable and un-measured qualities, multiple and differing stakeholder interests; anticipate future cooperative behaviour and problems; share risk; and may involve friendship, reputation, interdependence, and ethical problems. His relational theory of contract, therefore, defines contracts as "relations among parties to the process of projecting exchange into the future". Drawing on the fields of law, anthropology, economics and sociology, this theory is now broadly accepted in legal scholarship and practice (Macneil et al., 2001).

Informed by this theoretical perspective, we employed an ethnographic approach to gain a detailed understanding of the practices of SLA enactment. Ethnography seeks to understand everyday events in context over time from multiple participants' perspectives (Geertz, 1973b). Ethnography is increasingly used in organisations to focus on qualitative aspects of behaviour in work practices, yielding insights from which both theoretical and practical outcomes may be derived. The use of ethnography particularly in information systems (IS) research as a means of breaking down and understanding a complex phenomenon in practice is well established (Zuboff, 1988, Myers, 1999, Orlikowski, 2002, Suchman, 1987). Previous ethnographic research on IT related problems has highlighted the contrast between an espoused view of organisational processes and systems that implement them, and the

actual processes, human interactions and interventions needed to provide continuity of work in practice (Blomberg, 2008, Orr, 1996, Suchman, 1987). These studies have generated fresh insights and contributed to the design of improved processes and technologies.

Over a nine-month period, we conducted an ethnographic study of SLA enactment in a CITi-B2B services environment. SERVit, a multinational IT services organisation, provided server hosting, service integration, Help Desk, end-user computing and project services in a multi-sourced environment for its customer FINserv, a global financial organisation. SLAs were jointly formulated by the global headquarters of the organisations and services were delivered and supported in a global and regional matrix. Our particular focus among these services was the end-user computing service (EUCS). This service supported (on-site and remotely) FINserv's end-user computing (EUC) environment. The components of this environment included desktop computers, laptops, printers, mobile devices, local area networks, and servers for email, directory, print and file services; as well as applications for access, authorisation, office management/productivity, email, notes management, messaging and filesharing. In the terms of our description of a service system, the EUCS SLA incorporated the value proposition that SERVit was to maintain the entity to be transformed (the EUC environment) in the state defined by the performance metrics and targets. Requests for support and responses to the requests were examples of relational interactions, and the subsequent actions by SERVit and FINserv, such as fixing a failed component of the EUC environment, were the interventions on the entity to be transformed. Table 2 below, shows an instance of the EUCS in enactment, as a service system.

Table 2 The EUCS as a service system

Element of service system representation	**Example**
Value proposition	SERVit to maintain the state of the EUC environment as per terms of the SLA, with FINserv's cooperation, in exchange for payment
Entity to be transformed	state of the EUC environment
Provider	Participant(s) from SERVit
Customer	Participant(s) from FINserv
Relational interactions	Request to fix a problem in login access to the EUC environment, response to the request leads to repeated questioning and answering - to formulate a diagnosis.
Interventions	SERVit participant resets EUCS login, FINserv participant attempts to resets password
Resources configured	technology such as remote desktop support software, time, skills, information
Emergent conditions	reset doesn't work, SERVit participant does further diagnosis and finds a hardware error , for which the terms of the SLA say the turnaround time is 4 days
Relational interactions	participants negotiate how to get around the delay
Adaptive interventions and resources reconfigured	SERVit participant decides to raise the priority of the hardware fix in the Help Desk queue.

Immersed in the site on a daily basis, we observed interactions among participants (operational, technical, administrative, executive, and managerial) and gathered first-hand accounts from them of events that unfolded as services were enacted, through conversation and interviews. From this predominantly textual data (captured in recordings, transcripts, field notes and journal notes) we constructed a multi-layered, detailed description, from multiple points of view (Geertz, 1973b), of the interactions, negotiations and adaptations of enactment.

Analysis of the data revealed patterns of interactions and interventions in response to emergent conditions that we call a "cycle of enactment". The cycle was characterised

by emergent conditions that triggered relational interactions among participants (including negotiating and informal knowledge sharing), often culminating in decisions to adapt the terms of the SLA in order to realise perceived business value. This cycle, we argue, provided a way of managing the gap between EUCS as enacted and the EUCS as represented in the contract and in its formal governance and service management processes, while still serving the contract's over-riding requirement that the implicit intent of the contract and FINserv's best interests be recognised and served.

We also identified three informal mechanisms, routinely used by participants but not formally expressed that enabled the cycle. These were: learning to understand the service context, negotiating, and adapting to emergent conditions. We refer to these collectively, as relational capability.

Neither trivial nor *ad hoc*, the mechanisms of relational capability were anticipated, well understood by participants, systematic, and sanctioned. They depended on: a complex set of skills and knowledge; self-directed experiential learning; and effective judgement. Significantly, also, they were critical to coordinating troubleshooting in high severity service failures in a multi-sourcing environment where ad hoc teams of specialists from multiple providers negotiated resolutions of problems in conditions of complexity and uncertainty that precluded precisely defined procedures.

Inevitably, not every aspect of enactment can be expressed formally. Nevertheless, these findings suggest that the processes of the three informal mechanisms identified in the cycle of enactment are amenable to discovery and representation and are thereby capable of yielding information about SLA enactment not previously captured or exploited. The importance of this for improving value realisation in formulating SLAs for CITi-B2B services, and for managing their enactment, is two-fold. First, this information could provide feedback enabling SLAs to become a continuously evolving learning instrument. First, this information could provide feedback enabling SLAs to become a continuously evolving learning instrument. Second, related instruments could be developed to further capture and exploit this

information for process refinement, innovation, capability development, and SLA design.

1.5 Key contributions of this research

The aim of this study is to contribute to possibilities for value creation in the growing market for CITi-B2B services by addressing a perceived gap in research on the practices of SLAs enactment in those services. To do this, our goal is to develop a rich understanding of how those who participate in enacting an SLA manage the conditions of its enactment, by:

- unpacking their practices,
- identifying value generating patterns of practice which may be amenable to representation, improvement and innovation in contracting and managing CITi-B2B services to better reflect the multi-faceted generation of value in these settings.

Guided by these aims, our main contributions are:

1. The main contribution of this thesis is to the body of knowledge on service contracting and SLAs. It contributes the first empirically grounded, in-depth understanding of the nuances and characteristics of SLA enactment at the level of micro-personal linkages.
2. A detailed conceptual representation of a service system, drawn from cross-disciplinary perspectives on the nature of services, which affords a more detailed and granular perspective than previous definitions
3. Empirical research based on relational theory of contract's core premise that all contracts are inherently relational
4. Conceptualisation of cycle of enactment that creates value by managing the gap between the SLA and its enactment, and would be amenable to representation, improvement, and innovation.
5. The concept of relational capability, a form of organisational capability, which enables the cycle of enactment through its relational mechanisms of learning, negotiating and adapting, that would be amenable to representation, improvement and innovation.

1.6 Organisation of the thesis

Chapter 2: Literature review

We begin by reviewing the literature on services and developing a representation of a service system which incorporates concepts from management, economics, marketing, and service science. We then review the literature on CITi-B2Bservices, outsourcing, IT governance, IT service management, SLAs, and multisourcing.

Chapter 3: Relational theory of contract

Our theoretical perspective: relational theory of contract, describes contracts as emergent, relational and adaptive phenomena in enactment that include measurable, non-measurable and unmeasured qualities. This contrasts sharply with classical contract theory's view of contracts as static discrete entities containing legally binding promises with penalties for non-compliance to control its enactment. We proceed to explain the relational theory view that contracts are inherently relational and emergent, that a gap between the contract as an abstraction and its enactment is inevitable and that adaptations which manage that gap are integral to contract enactment. Finally, we explore the relationship between the theory and our description of a service system.

Chapter 4: Methodology and setting

Guided by Macneil's nuanced view of contracts, we chose ethnography as the research methodology to give us access to the everyday practices of SLA enactment over time. To affirm the suitability of ethnography we refer to its use in similar studies. We then introduce the setting of our nine-month ethnographic study of CITi-B2B service engagements between two complex global organisations, describing the challenges of negotiating access, descriptions of the organisations involved, the complex nature of the CITi-B2B service systems in place and the details of how we conducted our study.

Chapter 5: On the record – the EUCS SLA

We summarise the contractual arrangements between the two organisations, describe the structure of the master contract and the SLA schedules, catalogue the services in those schedules and explain how general terms and conditions in the master agreement relate to acting in the best interests of FINserv and, recognising the implicit intent of the contract, can over-ride the specific terms of an SLA. A description of the three stages of the contract lifecycle, from maintaining status quo, through making gains in efficiency to facilitating customer innovation is followed by an explanation of the governance and performance review processes by which compliance is measured. We explain our reasons for choosing the EUCS as the focus of our study.

Chapter 6: Business as usual – tracing the enactment of the EUCS SLA

Here we trace the day-to-day enactment of the SLA for the EUCS, beginning in the FINserv's domain, and then moving to SERVit's. We note in particular, participants' broad acceptance of the need to adapt the terms of the SLA to changing circumstances and a dependence on relations and informal sharing of personal knowledge in negotiating decisions about adapting the terms of the SLA.

Chapter 7: Understanding the practices of enactment

From our analysis of data collected as we traced the enactment of the EUCS, we identified patterns that we describe as characteristics of a cycle of enactment enabled by informal mechanisms. We argue for reframing our understanding of SLA enactment to take into account the capability intrinsic to those informal mechanisms, which we call relational capability. We acknowledge the contribution of that capability to generating value and its potential for further exploitation.

Chapter 8: Conclusions and future work

This chapter summarises our research and its key contributions. It then explores possibilities for rethinking SLAs as learning instruments to be augmented by

formalised models of the cycle of enactment and relational capability as instruments which can be developed and refined through analysis of actual enactment to leverage better value. Finally, it suggests directions for future work and acknowledges the limitations of this work.

1.7 Conclusion

In this chapter, we have explained the background and motivation for our work, presented our research aims and briefly explained the nature of CITi-B2B service systems and SLAs. We have then described our research approach, our contributions and have previewed the following chapters.

CHAPTER 2: Literature review

Outsourcing contracts are agreed in concept but delivered in detail

(Cullen and Willcocks, 2003 p.3)

2.1 Introduction

The volume and diversity of published research on information technology outsourcing (ITO) published over the last two decades indicate that the field is well established. The research is focused mainly on motives for outsourcing decisions, strategy and outcomes(Lacity et al., 2010). SLA-related research on outsourcing represents only a very small part of this. Furthermore, limitations of existing SLA research lie in both its restricted conceptualisation of complex IT-intensive B2B (CITi-B2B) services and its tendency to treat SLAs as prescriptive documents. Much of the published research therefore fails to acknowledge the context-dependent but somewhat under-represented aspects of SLA enactment. In this chapter, we begin by reviewing recent conceptualisations of services in writings ranging from management, economics, marketing, to service science. Based on this review we assemble a more expansive, micro-level representation of a service system with elements which can serve as a framework to inform our ethnographic study of the enactment of an SLA. We then review ITO research in general and finally, present a critique of research related to SLAs in complex IT-intensive outsourced service systems.

2.2 Definitions of services in recent research

Services have been defined in different ways over time and across disciplines as described in Vargo and Morgan's (2005) historical analysis of services in society and academic thought. Our intention here is to begin by considering more recent work in management, economics, marketing, and service science. The long-held view of a categorical distinction between product and services, and the view of services as immaterial goods (Hill 1977) has largely been challenged in this literature, leading to innovative definitions of services (Gadrey, 2000, Gadrey, 2002, Gronroos, 2006, Hill 1977, Maglio and Spohrer, 2008, Normann and Ramirez, 1993, Vargo and Lusch, 2004). While there remain differences in views on the exact nature of services across these disciplines, particularly regarding the nature of value creation and determination (Svensson and Grönroos, 2008), we look to first to generate a set of common and complementary characteristics. From these, we assemble a detailed representation of a service system at a level of granularity appropriate to exploring the enactment of an SLA.

In this section we first introduce the triangular representation of a service (Hill 1977, Hill 1999, Gadrey, 2002) and its significance for our study. We then extend that representation of a service by reviewing the work of Norman and Ramirez (1998) and with concepts drawn from service-dominant (S-D) logic and service science (Vargo and Lusch, 2004, Maglio et al., 2009) to create detailed representation of a service system to use as a micro-level framework to guide our research.

2.2.1 The service triangle

Concerned about "primitive and rudimentary" techniques then available for service measurement, the economist T. P. Hill (Hill 1977) sought a better understanding of the nature of services in order to identify appropriate units of quantity by which to measure them. He considered that the prevailing model widely accepted at the time mistook measuring the processes of service for measuring their outcome. He argued (Hill 1977, 1999) that services were characterised by the following:

- a relationship between provider and customer,

- the customer requests an intervention on an entity, (regardless of its materiality) which they own or control,
- the aim of the service is to transform the entity to a desired state,
- the provider and customer intervene on the entity and change its state,
- the state of the entity after the intervention (i.e. the outcome) can be compared with its previous state as an approach to the measurement of effectiveness relative to the aim of the service.
- the service cannot exist independently of its provider or customer (For example, a patient asks a doctor to intervene to transform the state of his health from ill to well, and the extent of change in the patient's state of health can be measured. This service could not exist without the doctor and the patient collaborating.)

The importance of this characterisation of services for developing elements in a representation of a service system for our study rests largely on Hill's making explicit the target of a service (i.e. the entity to be transformed) and the irrelevance of its materiality or immateriality for measurement. This enables two important new distinctions to be made in understanding services.

1. The processes of provider/customer relational interactions with each other are distinct from the processes of provider/customer interventions on the entity to be transformed.

2. The difference between the state of the entity before and after transformation can be measured.

Building on Hill's conceptual work, another economist, Jean Gadrey, attempted to further understand and reframe the measurement of productivity in services through an extensive empirical study of productivity in services across five industries in France and the United States, from which he concluded that existing definitions of services:

- did not hold true when examined against the evidence of services in practice, as they were constructed relative to the physical goods manufacturing

paradigm which ignores the significance of the social relations involved in services

- did not account for the transformed reality (entity) which is the outcome of a service intervention (e.g., a broken car is transformed to a functioning car by the interventions of a mechanic) (Gadrey, 2002).

He argued consequently for shifting the emphasis of economic measurement of services from output to outcome (i.e. the transformation of the designated entity) and from operational efficiency to service effectiveness by defining a service as:

An operation, aiming at a transformation of a reality C owned or used by a customer B, with the operation carried out by a provider A on the request of B (and often in collaboration with him) but not ending in a final good likely to circulate independently from C. (Gadrey, 2002 p. 42)

Gadrey's empirical work supported Hill's conceptualisations, enriched them with details drawn from his research, and showed that the concepts can be applied at a micro and individual level. Gadrey's representation of this is shown in Figure 1 below.

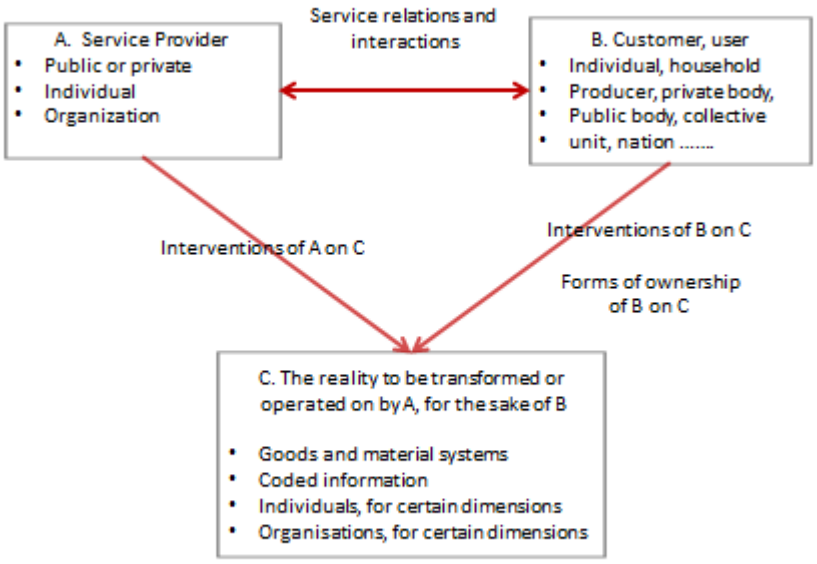

Figure 1 The service triangle[5] (Gadrey, 2002 p.42)

An important feature of this triangle for our work is that it can be applied at the micro level to a single instance of a service event (for example an individual-to-individual interaction in ethnographic observation) as well as the macro level. We will, therefore, use this service triangle as the basis for developing further elements in our representation of a service system, as we proceed to draw from management, marketing, and services science literature.

2.2.2 A service as a system

From management literature comes an important contribution to understanding the nature of generating economic value in services through the work of Normann and

[5] Henceforward we use the term "relational interactions" to denote "service relations and interactions"

Ramirez (1993, 1998) and Normann (2001). They argued that the perception of a product/services dichotomy did not reflect the reality of the emerging global economy, in which products and services were increasingly offered to the customer as a bundle and that rather than value being delivered by a supplier to a customer, value is created interactively by the supplier and customer. Drawing the principle from systems theory (Bertalanffy, 1969) that the behaviour of a system depends less on what each part is doing and more on how each part is interacting with the rest, they propose that a product or service is the result of a complex set of activities which create value through the reciprocal interactions of providers and customers co-producing value. In this way, they shifted the focus from the output of an economic exchange to the process of economic exchange. (Normann and Ramirez, 1998 p.30). However, unlike Gadrey (2002) they do not distinguish between interactions and interventions, nor do they explicitly identify the entity to be transformed by the service system's interventions.

Normann and Ramirez (1993) also describe the dynamic nature of the value-creating system as a dynamic configuring and reconfiguring of roles and resources among constellation of actors for the creation of value. This is an important reference point for our work as it introduces the idea of a service as a dynamic cycle of activities adapting to emergent conditions, and includes the concept of resources used by a service. Although in this context they are referring at a macro level to the reconfiguring of resources as a form of competitive strategy, we have adapted the concept for our framework in order to account for ways in which resources might be configured and reconfigured in the enactment of an SLA at a micro level. In support of this, Maglio and Spohrer (2008) summarise Normann's (2001) view of the over-arching nature of service systems and the levels of granularity at which they can be explored:

The smallest service system centers on an individual as he or she interacts with others, and the largest service system comprises the global economy. Cities, city departments, businesses, business departments, nations, and government agencies are all service systems. Every service system is both a provider and client of service that is connected by value propositions in value chains, value networks, or value-creating systems. (Maglio and Spohrer, 2008, p 18)

2.2.3 Service dominant (S-D) logic and service science

The concept of a "service logic" to account for these characteristics of service systems (Normann, 2001, p22) has been developed in this marketing literature (Vargo and Lusch, 2004, Vargo and Lusch, 2008). In a series of conceptual papers, the authors argue that whereas previous economic models of exchange based on the exchange of goods have dominated marketing theory, new perspectives on economic exchange which focus on intangible resources, the co-creation of value, and relationships have converged to form a new S-D logic for marketing theory, practice, and education. This logic, they contend, is underpinned by the following set of ten foundational premises (Vargo and Lusch, 2008).

1. Service is the fundamental basis of exchange

2. Indirect exchange masks the fundamental unit of exchange

3. Goods are a distribution mechanism for service provision

4. Operant resources are the fundamental source of competitive advantage

5. All economies are service economies

6. The customer is always a co-creator of value

7. The enterprise cannot deliver value, only offer value propositions

8. A service-centred view is inherently customer oriented and relational.

9. All social and economic actors are resource integrators

10. Value is always uniquely and phenomenologically determined by the beneficiary.

While the marketing context of the ten S-D logic's foundational premises is far broader than the scope of this study, four of the premises in particular enrich and underscore the elements we have drawn from previous literature in assembling a

micro-level representation of a service system. The sixth and eighth premises underscore the co-creating and relational nature of services highlighted in the discussions above. The seventh and tenth premises highlight the process of proposing and realising value. Not only is this is consistent with Gadrey's (2002) reference to the aim of a service in his definition, but together they give a more nuanced meaning to the cycle of interactions and interventions implicit in Gadrey's service triangle, as we demonstrate in Figure 2 below. However, as with Normann and Ramirez's (1993, 1998) work, S-D logic describes exchange between provider and customer that co-creates value but does not make explicit what phenomenon has been transformed by that exchange (the target of the service). It accounts for what is happening but fails to account for the entity to which it is happening.

In line with previous conceptualisations of services and the foundational premises of S-D logic, Maglio and Spohrer (2008), in their conceptual paper, describe the relatively new field of service science as "the study of service systems, which are dynamic value co-creation configurations of resources (people, technology, organisations, and shared information)". Aiming to create a basis for systematic service innovation, they argue for service science to adopt S-D logic as one of its cornerstones. and view it as a potential philosophical foundation with the service system as its basic theoretical construct (Maglio and Spohrer, 2008). Following this, the authors than enumerate the disciplines (law, economics, organisation theory, marketing, operations research, industrial engineering, computer science, service oriented architecture, web services, multiagent systems, game theory and mechanism design, management of information systems, business strategy, cognitive science and anthropology) from which knowledge relevant to a theoretical understanding a service system might be drawn. They proceed to illustrate their conceptualisation of a service system using an example of complex B2B IT outsourcing. In this example, they describe a typical value proposition for outsourcing is that the provider has the resources to do some work (such as running a helpdesk) more cheaply than the customer. As a result, by sharing the work value is co-created. They describe the resources for this specific service as being configured from many areas of the business (finance, legal, IT operations, and human resources, for example) with each providing information and competencies for the service. Although they conclude that the service is the application of competences for the benefit of others, how those

competencies are applied and to what they are applied are unclear. As we noted previously, this absence is also apparent in the work of Normann and Ramirez (1993, 1998) and Vargo and Lusch (2004, 2008).

2.2.4 Service constructs relevant to this study

Table 3 below summarises the key concepts assembled from services literature to inform our representation of a service system.

Table 3 Summary of service systems concepts relevant to our composite representation

Source	Concepts
Hill (1977, 1999) Gadrey (2000, 2002)	The target of a service is a material or immaterial entity the state of which the service aims to transform. Provider and customer agree on the aim for that transformation (this is in Gadrey's (2002) definition although not shown on his diagram above). Provider and customer are in relationship to each other Provider and customer intervene collaboratively on the entity to be transformed The effectiveness of the service can be measured by comparing the degree to which the transformed entity reflects that aim. relational interactions between provider and customer are separate from the interventions they each make on the entity to

	be transformed The provider and customer may be individuals or organisations.
Normann and Ramirez (1993, 1998) and Normann (2001)	A service is a system with suppliers and customers relating with each other as co-producers. Value is co-created and realised through the interaction of the parts of the service system (people, skills, technology and other resources) These resources are configured and reconfigured to adapt to emerging conditions The scope of service systems can range from individuals to organisations
Vargo and Lusch (2004, 2008) Maglio and Spohrer (2008)	Provider and customer co-create value The provider cannot deliver value, only offer value propositions Services are relational Value is determined by the beneficiary A service is a process

2.3 A composite representation of a service system

Drawing on these ideas for purpose of our study, we will describe a service system as a system of recurring provider and customer interactions and interventions which dynamically configure heterogeneous resources in emergent conditions to co-create value by transforming an entity to a state agreed in a value proposition. We present this graphically in Figure 2 below.

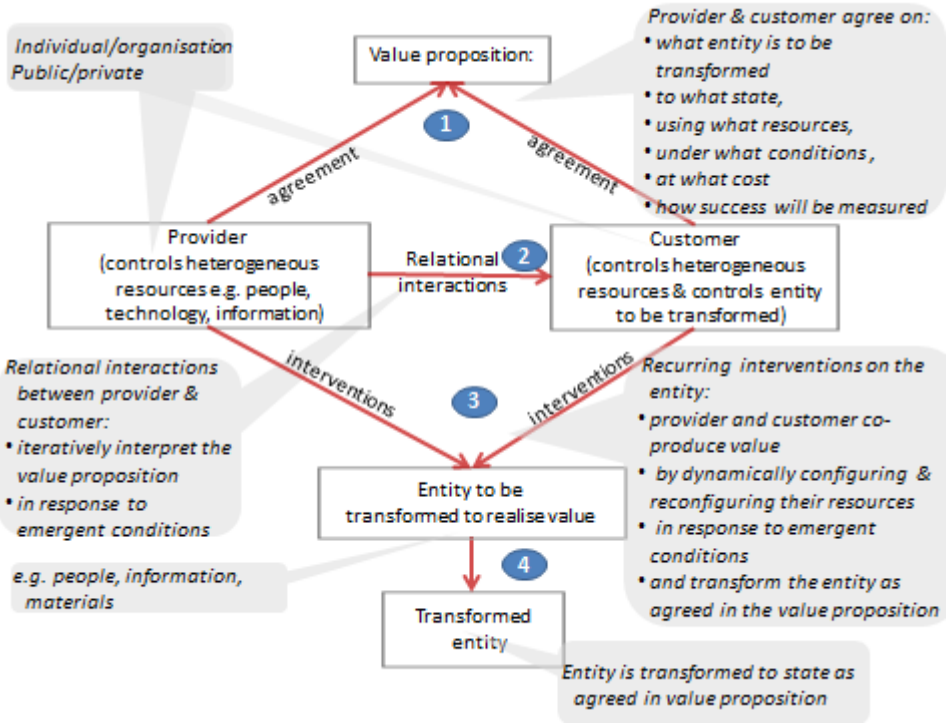

Figure 2 A composite representation of a service system[6].

[6] For the remainder of this thesis we largely use the terminology of this service system representation when discussing services.

2.3.1 Elements of the composite representation of a service system

1. The value proposition is negotiated and agreed between the provider and customer about:

    a. what entity is to be transformed,

    b. to what state,

    c. using what resources,

    d. under what conditions,

    e. at what cost,

    f. how success will be measured.

2. The provider and customer co-create value through relational interactions which interpret the value proposition in emergent conditions

3. The provider and customer co-create value:

    a. by dynamically configuring their resources (e.g. people, information in electronic form, materials),

    b. by intervening on the entity to transform it to the state agreed in the value proposition.

4. The entity is transformed to a state as agreed in the value proposition and value is realised.

2.3.2 Example of a service system using this representation

Take the provision of a medical service, for example. The value proposition is that the doctor will apply her medical skill, with the cooperation of the patient, to

improve his state of health in return for payment. The patient and doctor interact through describing symptoms, examining, questioning, and answering. Based on this, the doctor intervenes to transform (improve) the patient's state of health by prescribing medication or a procedure and the patient intervenes to improve his state of health by taking the medication or undergoing the procedure. In addition to the personal resources the patient and doctor contribute to the transformation, such as time and skills, other resources, such as technology and access to expert advice are configured as needed to realise the value proposition. An emergent condition might be that the patient is allergic to the medication and returns to the doctor. The doctor and patient adapt to this new condition by prescribing and taking the new medication respectively. If the patient's health improves then value has been co-created and realised as proposed. Table 4 below illustrates this example.

Table 4 Example of a service system

Element of service system description	**Example**
Value proposition	doctor and patient will cooperate to transform the patient's state of health by raising it to an improved level in exchange for payment
Entity to be transformed	patient's state of health
Provider	doctor
Customer	patient

Relational interactions	describing symptoms, examining, questioning, answering - to formulate diagnosis
Interventions	doctor gives the patient medication; patient takes it
Resources configured	time, skills, pharmaceutical information, location
Emergent conditions	patient is allergic to medication, doctor gives him a different medication
Relational interactions	patient tells doctor of allergic reaction
Adaptive intervention	doctor changes medication; patient takes it
Transformed entity	patients state of health is improved

2.3.3 IT-intensive service systems

In terms of our service system representation, an IT-intensive service system is one in which the entity to be transformed is information in electronic form and the interventions are performed electronically. An example of this might be an electronic account reconciliation service provided by an IT services provider (Org 1) to a manufacturing organisation (Org 2), as shown in Table 5 below.

Table 5 Example of an enactment of a service system

Element of service system description	**Example**
Value proposition	Org 1 will use electronic means to perform reconciliation calculations on Org 2's accounts data and transform the accounts information by the addition of reconciliation results, in return for payment
Entity to be transformed	Org 2's accounts information
Provider	Org 1
Customer	Org 2
Relational interactions	negotiating an agreement about e.g. the scope, cost, timing, results, measurement of the service, evaluating results, imposing penalties, requesting changes
Interventions	Org 1 makes its accounts data accessible Org 2 uses its resources to perform calculations on the data and update it accordingly

Resources configured	time, skills, hardware, software, people
Emergent conditions	power outage
Relational interactions	Org 1 and 2 coordinate the use of emergency back-up facilities
Adaptive intervention	Critical calculations are performed by deadline, lower priority reports deferred
Transformed entity	Accounts information partially transformed

2.4 Previous research on outsourcing and SLAs

In this section, we first describe outsourced IT services[7] and categorise them based on their complexity; then we review the literature on outsourcing IT services, placing a particular emphasis on contracting, governing, and managing these services, and the important role of SLAs across those domains.

[7] For the remainder of this thesis we use the term "IT services" to refer to IT intensive service systems as they are described above.

The practice of externally contracting IT services from specialist providers, commonly referred to in the literature as information technology outsourcing (ITO), has been well established over the last two decades, to the extent that it is estimated that the value of the IT services market is estimated to reach $1 trillion in 2015 (Karamouzis and Rold, 2014).

IT service offerings are very diverse. Broadly speaking, they can be classed as commoditised or customised based on their degree of complexity. Decision theory (Keen and Scott Morton, 1978) defines complexity in problem-solving as the degree of structure of a task (the extent to which the specifications of a task and its impact are clear) and level of uncertainty of the task (the extent of unpredictability of contingencies over time). Table 6 below shows how these concepts might be applied to classifying outsourced IT services.

Table 6 Components of complexity in IT services

Component	**Explanation**
Degree of structure	the inherent structure of the task being addressed by the service, based on the degree to which: • the specifications to be met by the service are clear, • the impact of the service is clear, • the processes being automated by the service are able to be repeated, routinised and standardised without intervention,
Level of uncertainty	the extent of predictability over time of contingencies related to IT components, organisational components, providers or customers.

2.4.1 Outsourcing commoditised IT services

Commoditised IT services operate in a context of relatively high structure and low uncertainty. They have standardised rather than customisable offerings (a network service, for example) and although often large in scale, nevertheless have relatively knowable and stable requirements (i.e. are precisely specified) which are amenable to standardised and automated processes. Commoditised services are also known as infrastructure utility services (IUS) which are defined as outsourced, industrialised, asset-based IT infrastructure managed services which operate below the functional business application layer and are defined by service outcomes, technical options and interfaces, and are paid for based on resource usage, allocation or number of users served (Maurer et al., 2014).

Because a commoditised service such as a network service is predominantly device-focused, it can take an integrated perspective of its components devices and include automated techniques to identify, aggregate, manage and monitor the resources on which it depends (including cross-domain resources and hierarchies of resources) (Gibbens et al., 2000, Garschhammer et al., 2001, Hauck and Reiser, 2000, Bhoj et al., 2001) as well as map low level performance information to high level service (Feridun and Rodosek, 2003). This means that their SLAs can be expressed computationally and performance monitored automatically against them. Other commoditised services with relatively low level of complexity include managed services such as storage and printing services, and commodity services such as software as a service (SaaS), platform as a service (PaaS) and infrastructure as a service (IaaS).

The technology which enables commoditised services continues to advance in speed and functionality, and decrease in cost (for example: global bandwidth, inter-operability through open standards such as TCP/IP, HTTP and XML; service oriented architecture (SOA) (Brown and Hagel, 2003), and virtualisation). The use of commoditised services to lower IT budget costs is predicted to increase to the extent that by 2017, buyers will have shifted as much as 50% of their sourcing portfolio to managed services. For instance, the emergence of commoditised storage-

as-a-service has brought a drop of more than fifty percent in the cost of storage (Karamouzis and Rold, 2014).

This view of IT as a service contrasts with the view of IT service being an attribute of IT systems operation, and IT itself as functions, activities, products and systems; a view that has been traditional in IT outsourcing (ITO) literature (Hirschheim and Lacity, 2000, Barthelemy, 2001, Lacity, 2002, Kern and Willcocks, 2002, Cullen et al., 2005)

2.4.2 Outsourcing complex IT services

Complex IT services, on the other hand, operate in a context of relatively high uncertainty, in that individual services are defined by negotiated SLAs and affected by organisational factors over time; and relatively low structure, in that they cover a wide range of organisational and human factors in the negotiation, customisation, and management of services (see Figure 3 below). For example, complex IT-intensive business-to-business (CITi-B2B) service systems typically have multi-year contracts enacted under complex and emerging conditions where the service context is not just a single dyad but a multi-sourced 'web' of interdependent services from, on the average, up to ten distinct providers (Huntley, 2013), mediated by SLAs across heterogeneous domains of control. CITi-B2B services are characterised by high level of customisation, often involve the delivery of services across multiple locations and time zones globally, labour-based delivery metrics that measure effort rather than outcome (Karamouzis and Rold, 2014), the development of long-term relationships, and adaptations to the contract and SLA terms.

A typical example of an outsourced CITi-B2B service is managing data centre operations. Gartner, Inc. (Maurer et al., 2014) defines a data centre as a centralized environment that provides support for computer equipment in a secure facility. This may include underlying network infrastructure, and processes and organisation that support the environment. These generally include: system and print operations, data centre support, backup and recovery processes, technical support, performance analysis and capacity planning, storage management, system security and contingency planning, asset procurement and third-party management. Data centre

outsourcing (DCO) is a segment of IT outsourcing (ITO), includes an IT management service, and is segmented into data centre, desktop, network and enterprise application outsourcing. ITO can also include a portfolio of product support and professional services that external service providers bring together to provide customers with IT infrastructure.

While there is also a growing trend in many B2B settings of transitioning to more commoditised services in which the focus is exclusively on measuring value in terms of outcomes rather than activities, the CITi-B2B service model remains dominant (Karamouzis and Rold, 2014). Figure 3 below shows our broad classification of IT services.

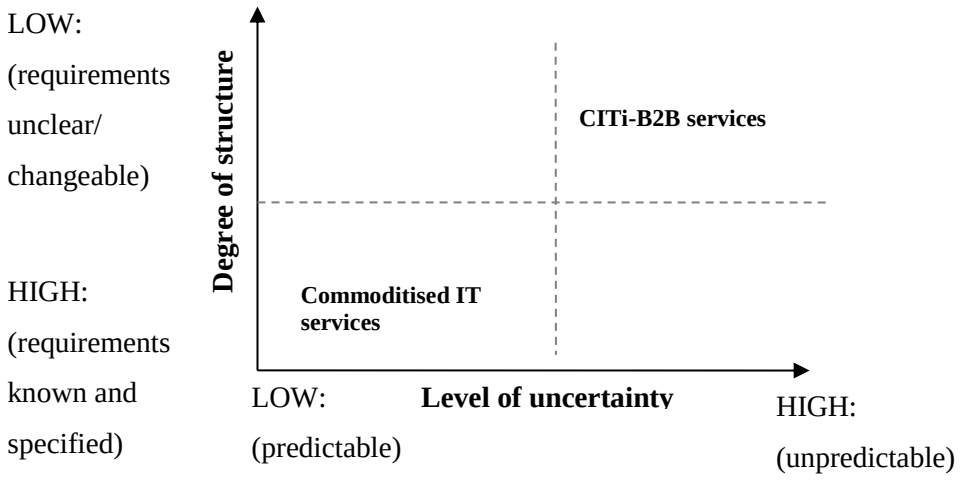

Figure 3 A classification of IT services

Three recent extensive literature reviews by Lacity et al. (2009), Lacity et al. (2010) and Blaskovich and Mintchik (2011) illustrate the breadth and depth of ITO research related to CITi-B2B services in scholarly journals over the last two decades. Each maps the territory and charts directions for future research, although with some differences of emphasis. Designed to produce insights for ITO practice, Lacity et al. (2009) review one hundred and ninety one articles categorised under six key topics listed here in descending order of the number of articles devoted to each:

- determinants of ITO success,
- determinants of ITO decisions,
- client and supplier capabilities,
- ITO varietals (e.g. offshoring),
- mitigating ITO risks,
- ITO strategy.

Subsequently, Lacity et al. (2010) canvassed one hundred and sixty four articles from fifty journals drawing from over twenty theoretical perspectives (including economics, strategy, sociology, and natural science) to uncover what the empirical academic literature said about ITO decisions and outcomes, as well as the gaps that future ITO research should address. They conclude that clients' ITO decisions are motivated by the desire to reduce costs, focus on core activities, and gain skills and technology that will improve their performance. Areas for future research identified included: strategic ITO decisions, interactions between outsourcing and firm capabilities, effects of environment, configurational and portfolio approaches to outsourcing, emerging models and trends, and indigenous ITO theories.

Blaskovich and Mintchik (2011) also review nearly twenty years of scholarly research on ITO. Their aim is to provide a foundation for future research, particularly in the field of accounting, by developing a taxonomy of ITO research based on: the research questions, major findings, and theories and methods used. They found that research questions related to three major issues: the drivers of ITO decisions; ITO strategy; contract governance and relationships; and the determinants of ITO success. The major findings included the following:

- The difficulty of measuring ITO success; for example, pointing out that firm level data ignored the intangible assets and benefits created at the operational rather than financial level.
- Similar to the findings in Lacity et al. (2010), Blaskovich and Mintchik (2011) showed that the three primary sources of theory were economics, strategy and sociology, in that order.
- They identified the most popular method or research was interview and/or case studies, while large-scale surveys were the second most common,

- They saw limitations in these surveys as scholars primarily investigate perceptions of IT executives, overlooking the perspectives of stakeholders in other areas or at other levels.

Strikingly, the dominant perspective in ITO research reviewed is not only managerial; it also focuses primarily on customers rather than providers. Little is explored about ITO from the point of view of providers or of the role of operational participants ITO.

2.4.2.1 IT governance

Of significance for our study is the degree to which governance of ITO figures prominently in all three reviews (Lacity et al., 2009, Lacity et al., 2010, Blaskovich and Mintchik, 2011) and that it is consistently divided into two quite separate categories: contractual governance and relational governance. Contractual governance refers to ensuring compliance with the actual detail of the ITO contract. Lacity et al. (2009) refer to relational governance covering "the softer issues of managing client-supplier relationships" including trust, communication, sharing and cooperation. Here the term "relationship" aggregates numerous activities of multiple participants and focuses mainly on governing and managing the relationship between provider and customer at the executive and managerial levels, rather than the complexity of value creation processes and the variety of interactions contained therein (Blois, 2002).

A hallmark of outsourcing literature on the governance of contracts is the view that contracts fall into two categories: formal or relational; purportedly based on Macneil's (1980) relational theory of contract, but actually based on an incorrect reading of Macneil's foundational tenet of his theory of relational contract, that all

contracts are relational to some degree (Campbell, 2001a, p. 28)[8]. In the literature of ITO, this has been construed to mean that there are two types of contracts, formal and relational, and there are two types of governance of contracts: relational and contractual. In that construction, the relationship between these two notionally separate forms of governance is typically characterised as one of substitutes or complements (Poppo and Zenger, 2002). IT outsourcing literature has focused on the complementary nature of the two and how to exploit this interdependence to influence outsourcing success (Goles and Chin, 2005, Kern and Willcocks, 2002, Poppo and Zenger, 2002, Goo et al., 2009). Rai et al. (2012) argue that relational factors not only interact with contractual factors, but in some situations will also substitute for contractually specified goals. For Srivastava and Teo (2012), the relational aspect is a safeguard for failures under conditions characterised by complexity and uncertainty. Understanding relational interactions, or "micro interpersonal linkages" (Whetten, cited in Blois, 2002) as an integral part of the day-to-day exigencies and adaptations of practice and of governance of CITi-B2B services to date tend to be generally ignored.

Notwithstanding the breadth and depth of ITO research evidenced in these reviews, and the extent to which they address governance; the actual phenomenon of governance itself is under-represented. Increased concern with corporate governance has led to more formalised expressions of IT governance and its relationship with corporate governance. The IT Governance Institute defines IT governance as helping ensure that IT supports business goals, optimises business investment in IT, and appropriately manages IT-related risk and opportunities (IT Governance Institute, 2015). Nunno (2014) describes IT governance as a subset of corporate governance with two major components: the governance framework and the governance process. The framework within which IT governance works is to guide the enterprise's investment in IT so that it is based on the enterprise's corporate strategy and

[8] We discuss this further in Chapter 3.

approach to risk. IT governance processes are designed to ensure that happens in two distinct ways: through strategic planning of IT investments, and through ensuring compliance with them, as for example in monitoring providers' compliance with the terms of their outsourcing contracts and SLAs.

2.4.2.2 IT service management

Providers of IT services generally manage the quality of their processes and ensure that the outcomes of SLA enactment comply with the requirements of the outsourcing contract and its SLAs by using IT service management process frameworks. IT service management (ITSM) is as an approach to IT operations that is characterised by its emphasis on IT services, customers, service level agreements, an IT service provider's handling of its daily activities through processes, and continuous improvement (Iden and Eikebrokk, 2013). Winniford et al, cited in Marrone and Kolbe (2011) claim that around forty-five percent of US companies are using an ITSM framework. Despite this degree of market penetration, no reference to IT service management appears in the reviews above (Blaskovich and Mintchik, 2011, Lacity et al., 2010, Lacity et al., 2009). Marrone and Kolbe (2011) also comment on the relative lack of academic research on ITSM compared to the exposure it receives in the popular press and practitioners magazines.Iden and Eikebrokk (2013) in their literature review of research on implementing ITSM report that research on ITSM has focused predominantly on descriptions of ITSM, motives, critical success factors, strategies and methods, implementation status, outcome, benefits, and IT alignment. In addition, they comment, work in progress mainly targets the issues of process management and quality. No reference to outsourcing appears in this either Iden and Eikebrikk's (2013) review or Marrone and Kolbe's (2011) review of prior academic research on ITSM however. Nor is any treatment of SLAs referenced in either work.

The most commonly used framework, the Information Technology Infrastructure Library (ITIL) (van Bon et al., 2007) consists of guidance for designing, implementing, operating, managing and improving processes in the five stages of a service lifecycle: Service Strategy, Service Design, Service Transition, Service Operation and Continual Service Improvement. ITIL version 3, published in 2007

and later revised in 2011, explains in five volumes the various processes an IT services supplier must perform. These processes describe how an IT service moves through its life cycle: how the IT service should be planned for and built; how the IT service and related changes should be validated, tested and deployed; how events and requests regarding IT services should be handled; how the basic configuration supporting the IT service should be controlled; and how operational problems should be solved (Iden and Eikebrokk, 2013). In this framework, services are described in a standardised way at a high level, i.e. by service purpose and function, scope, cost, service levels (availability, capacity, contingency), support provisions, evaluation methods and underpinning services (sub-IT services). ITIL is an open framework but there are also a number of closely related proprietary frameworks developed and used by large IT service providers for their internal use.

Although extensive and detailed in its coverage of the processes of ensuring SLA compliance, the underlying conceptualisation of CITi-B2B services in ITSM is somewhat narrow. Stucky et al. (2011), for instance, suggest that while to some extent complexity is recognised in ITSM, it is addressed by putting in place detailed agreements, and by automating and standardising as much as possible. What is not recognised in the formal processes of ITSM, she continues, although well known by participants in ITSM, is how people actually interact with each other and with technology and information.

2.4.2.3 SLAs

Outsourcing contracts contain the value position for the services being offered. They typically consist of a master agreement and a separate service level agreement (SLA) for each service. The master agreement contains the overall terms and conditions of the contract and articles in the contract lay the foundation for defining the basics of the engagement These articles may include items such as guiding principles, services, personnel, assets, retained authorities, fees and payments, record keeping, warranties, termination, limits of liabilities, security, and dispute resolution. Attachments to the contract may include contract relationships, strategic objectives, communication plans, process ownership, measurement charter, scope of work, and SLAs, among others (Ackerman et al., 2014).

Typically, an SLA defines the requirements and expectations, key performance criteria and mutual obligations for the service. It includes metrics for measuring and monitoring performance and quality (i.e. what the successfully transformed entity will be and how that success will be measured quantitatively), penalties and incentives relating to that performance and forms of reporting and governance (Cullen and Willcocks, 2003). It also refers to formal governance policies and structures that determine how service relations are to take place at a high level and in some instances, specifying formal reports and meetings for monitoring compliane. In terms of our representation of a service system (Figure 2, above) the SLA contains the value proposition, a description of what interventions are to be made to the entity to be transformed, under what conditions, and the consequences of non-compliance.

SLAs are central to all the processes of ITSM. One role of an SLA is to represent the service in such a way that a realistic agreement about its provision can be made and compliance with that agreement can be measured and monitored through the processes of governance. In this, service providers and customers have complementary interests. Providers are interested in gaining a good understanding of the relationship between what they can promise in an SLA and what they are capable of delivering; customers in understanding the impact of the SLAs they sign on their own productivity (Jin et al., 2002). For example the requirement that a service be available 98% of the time over a year, could be interpreted to mean that the service can be unavailable for a complete week in a year unless further conditions are defined (Trienekens et al., 2004).

Previous work on SLAs for complex IT-intensive services delivery is somewhat limited beyond the development of normative frameworks for SLA construction based on IT-intensive service management frameworks such as ITIL (van Bon et al., 2007) and related practitioner literature. However, a perceived management need for developing skills in managing relationships with external service providers motivated Goo et al. (2006) to understand how effectiveness and the impact of SLAs on ITO arrangements was measured, and to develop a tool for benchmarking SLA structuring efforts. Adopting a dichotomous view of formal and relational contacts erroneously ascribed to Macneil (1980) discussed in Section 2.4.2.1 above, the authors describe an SLA as a relational contract which provides the foundation of the

outsourcing relationship. In further survey-based empirical work Goo et al. (2009) using this uncommon view of SLAs, found that SLAs not only provide a way to measure the service provider's performance but also enable effective management of outsourcing engagements through the development of partnership-style relationships with high levels of trust and commitment.

Performance information is presented by service providers to their outsourcing clients both as a contractual requirement and to support the client-provider relationship. From a very different perspective to the work described above, Blomberg's (2008) ethnography-based empirical research in a service delivery centre explores the effectiveness of the provider's presentation of performance data in terms of the SLA to be shared with their client. She questions the assumption that shared information itself fosters trust and accountability in service engagements and suggests instead that a shared meaning of the information is critical. The information she refers to is to is the monthly reports produced by the provider describing actual performance metrics in relation to the targets specified in the SLA. These reports are not simple to compile; for many clients there may be thirty to fifty metrics to be tracked, analysed, and reviewed each month, the results of which may attract penalties. To compound this, there are issues of commercial confidence relating to the sharing of information about performance against SLAs as well as the possibility of client and provider giving the same information quite different meanings. There is also the situation where the SLA targets are being met but the client is not satisfied that the SLA targets are adequate to meet business needs. As one client remarked "I don't care whose fault it is, when the cash registers aren't working, my business suffers" (Blomberg, 2008, p219). The corollary of this is that the provider may be meeting targets consistently but the client is not acknowledging it. "They can't see how hard we work to keep the SLAs green month after month. I wish there was a way to make this more visible" (Blomberg, 2008, p219). Blomberg (2008) concludes that rather than the evaluation of the overall health of the service engagement being a matter of comparing performance data to metrics coded into the SLA, the task is for the client and provider to negotiate and collaboratively develop indicators whose meaning is shared by both parties.

2.4.2.4 SLAs and multi-sourcing

The efficacy of SLAs in a multi-sourced environment is important for organisations which increasingly rely on aggregations of complex interdependent IT services as components in a series, where the services are contracted externally and the SLA is crossing boundaries where unstated or understated organisational assumptions are unknowable by the external partner to the agreement. This multi-vendor web of interdependent services, integrated across heterogeneous domains of control, is a model of outsourcing whose adoption is growing. Between 2005 and 2010, the average number of providers in CITi-B2B outsourcing engagements increased from 3.7 to around 10 globally (Tenneson, 2013) and increasing use of managed services (including those which are cloud-based) will likely accelerate this growth.

However, integrating and managing the complexity of the multi-vendor web to achieve end-to-end service reliability is not yet well-developed (Huntley, 2013). It is largely absent from the literature which focuses mostly on dyadic contracts or series of providers (Gallivan and Oh, 1999, Cullen et al., 2005, Heitlager et al., 2010). However, Longwood and van der Heiden (2012) presented a strong case the for third-party multi-sourcing services integrators and more importantly, Bapna et al. (2010) proposed a detailed research agenda for multi-sourcing. End-to-end delivery metrics, standardised SLAs, and reporting and governance of relations among the providers (particularly where they may be both collaborators and competitors) are part of the under-represented complexity of multi-vendor webs of services. This becomes more important as organisations increasingly rely on heterogeneous networks of interdependent services from multiple providers.

2.5 Under-representation in SLAs

SLAs cannot fully represent the enactment of a service. Firstly, they are high-level representations of what is to happen and therefore cannot encompass the diversity of events that unfold over time. Secondly, performance measures in SLAs are generally restricted to what is quantifiable and are therefore unable to account for many of the nuances of adapting to emergent conditions in practice. Inevitably, there is a gap between what is contractually represented and what actually happens. Master

agreements anticipate this to some extent. Typically, they contain over-riding clauses to address concepts such as requiring the provider to always act in the best interests of the customer and to perform functions implicit in the contract.

Although SLAs by their nature cannot encompass the uncertainties inherent in CITi-B2B services as they are enacted, the possibility exists that information captured during SLA enactment could enrich SLAs as a value generating instrument. Under-representation in SLAs of emergent conditions that impact value leading to ad hoc interventions, ambiguity, and assumption. For example an eight-hour response time specified in the written SLA was consistently over-ridden by the SLA enacted in the relationship between the provider and a particular customer who, "if we don't answer within the hour, goes ballistic" (Harmon et al., 2006). Another example of information important for service provision that may not be accounted for in formal representations is the actions the service customer takes, and the resources used, to complete a transaction (Gutek, 1995). Normative models of SLAs also typically address the material properties of an IT service, representing the IT artefact as stable and discrete, and as a consequence, taken for granted, assumed to be unproblematic (Orlikowski and Iacono, 2001) and to operate as it was designed to behave (Sawyer and Crowston, 2004).

2.6 Conclusion

In this chapter, we presented a review of the relevant literature we reviewed recent conceptualisations of services in literature from management, economics, marketing, and service science. The lack of a common, detailed representation of a service system in these motivated us to compose a more expansive representation at a level of detail which we could use to inform our ethnographic study of SLA enactment. We then critiqued the literature of ITO, ITSM, and SLAs to find very limited treatment of SLAs in it. Existing SLA research, we found, was based on a restricted conceptualisation of CITi-B2B services, tended to treat SLAs as prescriptive documents and failed to acknowledge the context dependent and under-represented features of SLA enactment. In the following chapter, we explain our use of relational

theory of contract as a theoretical perspective and its congruence with the aims of our study.

CHAPTER 3: Relational theory of contract

"The first thing to note about contract is the fact that it concerns social behaviour"

(Macneil 1968, cited in Campbell, 2001a, p.9)

3.1 Introduction

In the previous chapter, we reviewed the literature on services and developed a description of a service system which incorporates features from writings on systems theory, management, economics and marketing. Drawing on the literature of management, economics, marketing and service science (Normann and Ramirez, 1998, Gadrey, 2002, Vargo and Lusch, 2004, Maglio et al., 2009), we describe a service as: a system of provider-customer interactions and interventions which dynamically configure heterogeneous resources in emergent conditions to co-create value by transforming an entity (material or non-material) to a state agreed in a value proposition. An IT-intensive service system, we proposed, was one that is predominantly reliant on IT for the transformations of the system and in which the entity to be transformed is generally information in electronic form, and the value proposition is contained in the SLA. We then reviewed literature addressing externally contracted CITi-B2B services, SLAs, multisourcing, and IT governance and management frameworks.

In this chapter, we explain our choice of a theoretical perspective to help us gain a more nuanced conceptualisation of the dynamics of CITi-B2B SLA enactment prior to entering the field. We first set the context by drawing on an important study in legal anthropology which reframes the idea of law (and rule systems in general) as a process rather than as a static entity. We then present Macneil's (1980) related argument that classical contract theory's view of contracts as static discrete entities containing legally binding promises with penalties for non-compliance to control its enactment is inadequate to explain what happens in contract enactment. Relational theory of contract, which he developed in response to this, describes contracts as inherently relational, emergent, and context-dependent phenomena in their enactment, managing the inevitable gap between the contract and its enactment through adaptations. Its relevance for our study therefore lies in its power to give us insight into the nature of the elements of our service system representation such as interactions, interventions and adaptations, which are integral to enacting CITi-B2B SLAs. We present the theory, critiques of it, its influences and its operationalisation. Finally, we illustrate graphically the relationship between the theory and our description of a service system by mapping it to our service system representation.

3.2 Law as process

The idea that law is an emergent process rather than a rational imposition of order is well supported in legal anthropology (Hoebel and Llewellyn, 1941), (Moore, 1978). A legal scholar and anthropologist, Moore's (1978) primary concern is the study of "rule orders in action". She observes:

> The making of rules and social and symbolic order is a human industry matched only by the manipulation, circumvention, remaking, replacing and unmaking of rules and symbols in which people seem almost equally engaged. (Moore, 1978, p. 3)

A central concern of any rule making, she continues, should be:

> the identification of those social processes which operate outside the rules, or which cause people to use rules, or abandon them, bend them, reinterpret them, side step them or replace them. To recognise such processes are inescapable

> aspects of the use of rule-systems and to try to understand as much as possible about the conditions of their operation would probably be far more effective than taking the view that such activities might be fully controlled simply by tighter drafting of "loophole-less" legislation. Social transactions usually take place in the service of objectives to which legal rules are merely ancillary shapers, enabler , or impediments. Conformity to the rules is seldom in itself the central objective. (Moore, 1978, p. 4)

Moore goes on to explain that although these processes of adaptation are typically under-represented in rule-systems, rather than being deviations from rule-systems, they are fundamental to their nature as rule-systems are inherently open to interpretation and so include ambiguities, gaps, conflicts and the like (Moore, 1978, p. 3). Over time therefore, control can only be temporary, incomplete and the consequences not fully predictable (Moore, 1978, p. 3). Taking a dichotomous compliance/deviance approach to the dynamic nature of rules in general reduces our ability to fully understand what happens in practice and the conditions of their operation (Moore, 1978, p. 4).

3.3 Development of the relational theory of contract

In a somewhat similar vein, the legal scholar, Ian R. Macneil, was motivated by his observations of law in action in his legal practice to question the relationship between law and its practice in the field of contract law. He developed a theory (Macneil, 1980) in response to what he saw as the failure of classical theory of contract law to fully explain how contracts in practice were performed over time (Campbell, 2001b, pp. 5-6). In his view, the failure of the classical contract law to account for the predominantly social or relational properties of contracts produces incoherence, empirical irrelevance, and explanatory failures (Macneil 1969b,1987a,35-6 cited in Campbell, 2001b, p. 6). Drawing on his legal scholarship, legal practice and experience as the hereditary chief of the Scottish Clan Macneil (Campbell, 2001b, p. xii), he formulated, developed, redefined and even renamed the theory in over 30 books and papers from 1960 onwards (Campbell, 2001b, p. 4).

The volume, scope and complexity of his work makes it often inaccessible, difficult to read (Feinman, 2001) and difficult to operationalise (Ivens and Blois, 2004).

Nevertheless, with its roots in law, anthropology, economics and sociology, the theory reveals the essentially relational nature of contractual economic exchanges, the wider social matrix in which they take place and implications of their under-representation in contract law (Campbell, 2001b, p. 9). The extent to which researchers in law, economics and marketing have drawn on the theory (Fink et al., 2010, Goles and Chin, 2005, Ivens and Blois, 2004, Spriggs and Gundlach, 1996, Williamson, 1985) bears testimony to Macneil's influence and the significance of his contributions.

3.3.1 Macneil's critique of the classical theory view of contracts

Macneil's seminal work, *The new social contract: an inquiry into modern contractual relations,* first characterises classical law's representation of contracts as:

- a discrete and static entity representing the meeting of minds with a view to creating legally binding effects (a set of promises)
- incorporating precise measurements of easily measured objects,
- having non-performance remediated with penalties
- tight and precise, clearly defined, immutable
- presentiated (i.e. past and future obligations and circumstances able to be rendered as if present)
- presenting exchange in utilitarian terms of the market and discrete transactions
- excluding social relations by definition except for a class of relational contracts (such as marriage, for example),
- held to be the dominant form of contract

(Macneil, 1980, pp. 10-35)

As we saw in the previous chapter, these characteristics are largely embodied in normative views of SLAs.

3.3.2 The relational, emergent and adaptive nature of contracts in enactment

However, he then argues, while we tend to see exchange in utilitarian terms of the market and discrete transactions, a view which by definition excludes social relations, exchange is "the inevitable product of specialisation of labour, whether in a factory, in a commune, within a corporation, between discrete entities in markets, or within a family" (Macneil, 2001b, pp. 257-258) and each exchange in the performance of a contract is not an isolated or discrete transaction, but part of a complex web of exchange relations (Macneil, 2001b, p.186). Further, since in reality contracts cannot be presentiated (i.e. they cannot account for the future in the present), the gap between the contract as an idea or abstraction and its performance (enactment) means that adjustments, or adaptations, are inevitable and socially influenced (Macneil, 2001b, pp. 224-225); for example:

> somewhere along the lines of increasing duration and complexity, trying to force changes into a pattern of original consent becomes both too difficult and too unrewarding to justify the effort, and the contractual relation escapes the bounds of the [classical] system. That system is replaced by very different adjustment process of an on-going administrative kind... through the political and social processes of the relation. (Campbell, 2001a, p.18)

Following Macaulay (1977), Macneil argues that contracts in practice operate primarily as instruments for communication and for organising and planning relationships i.e. as a way of getting things done (Macneil, 1980, p.5) and that an empirical view of contracts shows that they:

- are complex, relational, emergent, adaptive and context-dependent phenomena,
- have measurable, non-measurable and un-measured qualities,
- have multiple and differing stakeholder interests,
- anticipate future cooperative behaviour and problems,
- share risk,
- may involve friendship, reputation, interdependence and ethical issues,
- include recurring adjustments and adaptations

(Macneil, 2001b, pp. 125-199)

Macneil argues further that in this failure of the classical view to account for relational emergent or adaptive properties of contract performance lies its explanatory inadequacy (Campbell, 2001a, p.9).

3.4 Relational theory of contract

As an alternative jurisprudence for market transactions, Macneil offers the relational theory of contract (Campbell, 2001a, p. 4), which defines contracts as "relations among parties to the process of projecting exchange into the future" (Macneil, 1980, p.36). Campbell claims the essential contribution Macneil's theory made to understanding contracts was the idea of contracts being inherently relational and varying in relational intensity depending on the form and duration of the contract: i.e. Macneil argued that:

> Discrete exchanges and relational contracts form an axis and along this axis runs a spectrum of contractual phenomena. At one pole is the discrete transaction identified by the spot sale and at the other the intertwined relation exemplified by a web of long-term commercial relations between a number of parties. Particular contracts can, of course, fall at particular points along the spectrum... ranging from highly discrete to highly relational. (Campbell, 2001a, p. 28)

Underpinning the theory are the core propositions that:

- every transaction is embedded in complex relations
- understanding any transaction requires understanding all essential elements of its enveloping relations
- effective analysis of any transaction requires recognition and consideration of all essential elements of its enveloping relations that might affect the transaction significantly
- combined contextual analysis of relations and transactions is more efficient and produces a more complete and sure final analytical product than does commencing with non-contextual analysis of transactions (Macneil, 2001a).

3.4.1 Contract elements and the transactional-relational spectrum

Based on these propositions, Macneil divides the types of contractual phenomena which can be present in any transaction into twelve categories, called elements, whose relational intensity in contract performance varies from the relatively discrete (which he later called transactional) to the complex (Macneil, 2001b, p. 195). For example, in a relatively discrete exchange, obligations may be almost fully specified in a legal contract (a mobile phone contract for example), but in an exchange of greater relational intensity (complex long-term contracts such as IT outsourcing contracts), the agreements may be less specific in terms of rights and duties for each party because some part of the exchange will occur in the future and all the details are not known at the present (Spriggs and Nevin, 1995). To contextualise this and to illustrate the social basis and essential complexity of contracts, the following table identifies the elements and summarises the characteristics of each element at the transactional and relational poles of the spectrum.

Table 7 Transactional and relational poles of the spectrum of relational intensity of contract elements

ELEMENT	**TRANSACTIONAL POLE** ← **(relatively discrete)**	**RELATIONAL POLE** → **(complex)**
1. Overall relational type		
a) Degree of personal involvement	Segmented, limited, non-unique, transferable	Whole person, unlimited, unique, non-transferable
b).Style of communication	Limited, linguistic, formal	Extensive, deep, not limited to linguistic, informal in addition to or in lieu of formal.

c) Subject matter of satisfactions	Simple, monetisable economic exchange only	In addition to economic , complex personal , non-economic satisfactions very important; social exchange; non-exchange
2. Measurement and actual measurement of exchange and other factors	One side of exchange is money; other side is easily monetized; both are actually measured; no other aspects	Both exchanges and other factors are relatively difficult to monetize or otherwise measure and the parties do not monetize or measure them
3. Basic sources of socio-economic support	Apart from exchange motivations themselves, external to the transaction	Internal to the relation as well as external
4. Duration	Short agreement process; short time between agreement and performance; short time of performance	Long term, no finite beginning; no end to either relation or performance, except perhaps upon death of parties
5. Commencement and termination	Sharp in by clear agreement; sharp out by clear performance	Commencement and termination, if any, of relation likely to be gradual, as may be withdrawal; individual entry may be by birth, and withdrawal by death
6. Planning		
a) Primary focus of planning	Substance of exchanges	Structures and processes of relation; planning of substance possible; extensive specific planning of structures and processes may be possible
b) Completeness and specificity		
1. possible when planning occurs	Can be very complete and specific; only remote contingencies (if those) are beyond reasonable planning capacity	Limited specific planning of substance possible; extensive specific planning of structures and processes may be possible
2. actual planning accomplished	Very complete and specific; only the practically un-plannable (of which there is little) left unplanned	Limited specific planning of substance carried out; extensive planning of structures may or may not occur

c) Sources and forms of mutual planning		
1. bargaining and adhesion	Specific consent to price of a good produced unilaterally by seller; short bid-ask bargaining, if any	Adhesion without bargaining unlikely except in case of entry of new members into existing relation; otherwise extended mutual planning merging imperceptibly into ongoing relation being established; a "joint creative effort"
2. Tacit assumptions	Inevitably present, but inherently relational and anti-transactional	Recognised aspect of relational planning without which relations cannot survive
3. Sources and forms of post-commencement planning	No post-commencement planning	Operation of relation itself is prime source of further planning, which is likely to be extensive; may or may not be extensive explicit pois-commencement planning
7. Future cooperation required in post-commencement planning and actual performance	Almost none required	Success of relation entirely dependent on further cooperation in both performance and further planning
8. Incidence of benefits and burdens	Shifting or other specific assignment of each particular benefit and burden to one party or the other	Undivided sharing of both benefits and burdens
9. Obligations undertaken		
a) sources of content	Genuinely expressed, communicated and exchanged promises of parties	Relation itself develops obligations which may or may not include genuinely expressed, communicated and exchanged promises of the parties
b) Sources of obligation	External to parties and transaction except for their triggering by manifestation of consent	Both external and internal to the relation; same as the sources of content of the obligation as to internal element

c) specificity of obligation and sanction	Specific rules and rights specifically applicable and founded on the promises monetisable or monetised (whether by mutual party planning, i.e. promissory or otherwise, i.e. by rule)	Nonspecific; non-measurable whether based on customs, general principles or internalizations all arising from relation or partly from external sources; restorative unless breach results in termination, then may become transactional in nature.
10. Transferability	Entirely transferable with the sole exception of an obligor's ultimate liability for non-performance	Transfer likely to be uneconomic and difficult to achieve even when it is not impossible (i.e. switching costs)
11. Number of participants	Two	May be as few as two but likely to be more than two and often large masses
12. Participant views of transaction or relation		
a) recognition of exchange	High	Low or perhaps even none
b) Altruistic behaviour	None expected or occurring	Significant expectations of occurrence
c) time sense	Presentiation of the future (assumption that the contract will be able to account for future conditions)	Futurising of the present. i.e. to the extent past, present and future are viewed as separate, the present is viewed in terms of planning and preparing for a future not yet arrived
d) Expectations about trouble in performance or among participants	None expected, except perhaps that planned for; if it occurs expected to be governed by specific rights	Possibility of trouble anticipated as normal part of relation, to be dealt with by cooperation and other restorational techniques

Adapted from Macneil (2001b, pp.196-197)

3.4.2 Contract norms

In addition to describing the elements of contracts, Macneil identifies a set of ten common norms which mediate how parties to a contract can (and should) behave in a contractual relationship (Spriggs and Gundlach, 1996). The norms are: role integrity, reciprocity, implementation of planning, effectuation of consent, contractual solidarity, linking norms (restitution, reliance and expectation), creation and restraint of power, flexibility, harmonisation with the social matrix and propriety of means (see Table 8 below). According to Macneil, these ten common contract norms influence the contractual behaviour expressed in the twelve elements, and underpin all contracting by generating a cooperative attitude which respects solidarity and reciprocity (Campbell, 2001a, pp. 14-15).

Table 8 Common contract norms

THE COMMON CONTRACT NORMS	
Role integrity	Consistency in adhering to an expected pattern of behaviour over time. The role becomes the foundation for future reliance and expectations between parties in the relationship without necessarily referring to the contract.
Reciprocity (mutuality)	An exchange creates a net gain or surplus that does not exist prior to the exchange (otherwise there is no motive for the exchange). Neither party can benefit from this surplus without the participation of the other. Thus each party is to some degree dependent on the other for an improvement in its pre-exchange situation in ways which may not be specified in the contract.
Implementation of planning:	Complexity overwhelms the capability of the parties to plan for every eventuality. Consequently, the spirit of the relationship guides the implementation of structures and processes used for planning the details of the exchange.
Effectuation of consent	Conferring upon another party the power to limit future choices or options through the act of consenting.
Contractual solidarity	The expectation that the relationship will endure based on fundamental social norm that most people and institutions are dependable and just.

Linking norms: restitution, reliance and expectation	These norms are called the linking norms for two reasons. First, they transcend the definitional boundaries of the other norms; they provide links between them. Second, these norms link the other norms to more precise rules of behaviour; typically those specified in formal agreements or contracts between the parties and can contribute to determining the nature of any change to the contract in response to unforeseen circumstances.
Creation and restraint of power:	Each party not only gains power it didn't previously have, but also becomes subject to certain limits or restraints on its own power. The amount and type of power can grow, shift, or evolve as the situation changes. Macneil argues that this norm has a high degree of interplay with other norms. For example, the norm of Effectuation of Consent grants a certain amount of power to the exchange partner. Likewise, the Implementation of Planning and Effectuation of Consent norms suggest the existence of various governance mechanisms that limit or constrain a party's power.
Flexibility	A relationship must have the capacity to accommodate change, within the contract. Otherwise it will break up under the pressures necessitating that change.
Harmonisation with the social matrix	The collective set of norms are to some extent shaped and governed by existing social norms, and consequently must conform or harmonize with them
Propriety of means	Resolving conflicts by formal means is seen as injurious to the relationship and ways of working together may develop that do not transfer effectively to other partnerships

Adapted from (Campbell, 2001a, Goles and Chin, 2005, Ivens and Blois, 2004, Macneil, 2001b, Spriggs and Nevin, 1995)

3.4.3 Dominant norms lead to adaptation as an integral part of highly relational contracts

This interplay of norms with the key contract elements discussed above, can also significantly increase the extent and role of adaptation in contract performance particularly where the elements of the contract are situated towards the relational end of the spectrum (Vincent-Jones, 2001, p. 85). For example, in complex long-term contracts, where relational intensity is high, adaptations tend to increase in order to maintain integrity of role and harmony with the social matrix (Ivens and Blois,

2004). To account for this, Macneil defines three dominant norms that strongly influence adaptive behaviour in highly relational exchanges: role integrity, preservation of the relation (based mainly on reciprocity, contractual solidarity and flexibility) and harmonisation of relational conflict (i.e. harmonisation of the social matrix plus flexibility) (Ivens and Blois, 2004). Adaptations are inevitable in the performance of a contract argues Macneil (2001b, p. 224) and although highly relational contracts often have flexibility planned into them in the form of administrative provisions for adjustments in operating relations (the formal change management process typical of CITi-B2B service management would be an example of this), not all adjustments can be dealt with in this way:

> Planning is inherently filled with gaps, and performance fills those gaps and thereby alters the relationship as planned (Macneil, 2001b, p.225).

3.5 Influence and operationalisation of the theory

Despite misunderstandings and misinterpretations of the theory (Campbell, 2001a, p.5), there has been widespread acceptance of its basic insights: that there is a spectrum of contractual behaviour in contract performance and that it is influenced by common contract norms (Vincent-Jones, 2001, p.69). Although the foundational tenet of the theory, that all contracts are relational to some degree is less widely held, his work had significant influence in a number of areas.

Notably, his work influenced that of the economist Oliver E. Williamson, who acknowledged that:

> Macneil's treatment of contract was much more expansive, nuanced and interdisciplinary ... than I had seen previously ... This invited a more general formulation in which law, economics, and organisation were joined in the effort to assess the governance of contractual relations. (Williamson, 1996, pp. 355-356 cited in Campbell 2001b, p. 34)

Campbell (2001a, p. 35) remarks that:

> Williamson has made repeated productive use of Macneil's distinction of different types of contracts at different points of the spectrum (Williamson

> 1985, 68-73; 1986, 102-5) … The subtitle of what remains Williamson's most ambitious work - *The Economic Institutions of Capitalism* - is *Firms, Markets, Relational Contracting*.

A limited view of Macneil's theory has also been extensively adopted and adapted in the fields of marketing and outsourcing. Paulin and Ferguson (2010), for example, reports the publication of fifty empirical papers published between 1988 and 2009 in which Macneil's relational norms were operationalised in studies of business-to-business exchanges alone. However Blois and Ivens (2006) challenge the validity of the operationalisation in many such studies on the basis that:

> There is no study that has developed measures of all of Macneil's ten common contract norms, but different studies have operationalised different sub-sets of them and several do not explain why they are using a subset or how the elements of the subset were selected. Furthermore, even where writers investigate the same norms, there seems to be no agreement as to how they should be operationalised. (Blois and Ivens, 2006 p. 357)

Campbell (2001b, p. 5), comments that there is a widespread misinterpretation of Macneil's work that he claims there is a separate "relational" category of contracts, as in McLaughlin et al. (2014), for example. This is however antithetical to his insistence on "the relational constitution of all contracts" (Campbell, 2001b, p.5), Nevertheless, the misinterpretation (albeit routinely attributed to him) has influenced a significant body of literature on contracting which is extensively referenced in IT outsourcing studies. These studies, firmly rooted in the misinterpretation, distinguish between "relational governance" and "contractual governance" and then proceed to explore the question of whether they are substitutes or complements, as for example in Kern and Willcocks, 2000; Poppo and Zenger, 2002; Goo et al., 2009 (cited in Lacity et al., 2009).

Others also challenge studies on the grounds that they employ only the contract norms and virtually ignore the contractual elements thus introducing the possibility of flawed conclusions about the influence of those norms (Spriggs and Nevin, 1995).

In contrast to this, Vincent-Jones (2001, pp. 74-81) reports findings from more expansive uses of the theory. These come from research into a number of projects

carried out following the extensive restructuring of the public service provision in the UK with its emphasis on competitive tendering and detailed contracts. These projects used aspects of relational theory of contract for analyses of contract behaviour. They included:

- a comparative study of contract law, social norms and cooperative business relations in Britain, Germany and Italy which revealed the benefits of the relational influence on formal contracting (Arrighetti et al., 1997, cited in Vincent-Jones, 2001, p.77), (Deakin and Walsh, 1996, cited in Vincent-Jones, 2001, p.80),
- an analysis of the relational intensity of contractual transactions in private and public sector contracts, using Macneil's transactional-relational spectrum of elements , which found that "both clients and contractors wish to engage in the sort of extensive cooperation , communication and mutual planning that can only arise under a relational, trust-based contracting relationship" (Walker and Davis 1999, cited in Vincent-Jones, 2001, p. 77).
- An analysis of contractual governance by Vincent-Jones (1997 pp.158-159, cited in Vincent-Jones, 2001, p. 80) which found that although contractual procedures could enhance trust by clarifying roles and responsibilities, and providing channels for problem solving, cooperation was contingent upon other formal and informal processes, which bypass or supplement the contract.

3.6 Critique of the theory

Critiques of the theory tend to fall into two categories: either rejection of the theory as an all-encompassing theory of contract or acceptance of the theory with reservations about its useability as a theoretical framework. Feinman (2001, p.59) characterises the first group as those who have recognised the importance of social relations in contracting but have, for example in the more narrowly defined concept of incomplete contracting. The second group comprise those who criticise its lack of clarity and consequent difficulty in its ability to be operationalised. Some have argued for example that the theory is difficult to translate into empirical measures

and testable hypotheses (Spriggs and Gundlach, 1996) and that Macneil did not attempt to develop measures for the norms (Blois and Ivens, 2006). Ivens and Blois (2004) also argue that its scope, complexity, and ongoing redefinition of the theory impede its full operationalisation. While it has been praised for its real world relevance it has been also been criticised for having too many and/or overlapping constructs (Barnett, 1992), for its stylistic difficulties (Elliot, 1981) and that it is more relevant to social theory than to legal theory (Hardin, 1982). Indeed, Macneil himself acknowledged some "lack of clarity of expression" particularly in the evolution of his ideas over time (Macneil, 1980, p. 272).

3.7 Relational theory of contract and CITi-B2B services

Macneil's interweaving of the social matrix, relational interactions, and norms affords us more nuanced conceptualisation of the dynamics of CITi-B2B SLA enactment and their role in value creation. It helps us explore how adjustments and adaptations might occur as SLAs are interpreted and re-interpreted as result of particular conditions, and how resources are dynamically configured to transform an entity to a state agreed in a value proposition. It contributes to our developing a systematic understanding of the texture of daily interactions and interventions in CITi-B2B service engagements using a richer set of constructs than have been used previously. Foremost among these for our study is the role of relations in contract enactment

The basic insight of relational theory of contract: that contracts are inherently relational, emergent and adaptive reflects aspects of our earlier description of services systems in general and CITi-B2B service, as shown in

Figure 4 below, particularly in terms of:

- the on-going relational interactions between the provider and customer that determine how value will be generated in terms of the SLA corresponds with Macneil's view of contracts as contracts as "relations among parties to the process of projecting exchange into the future" (Macneil, 1980, p.36).

- the resulting interventions on the entity to be transformed that dynamically configure resources (e.g., people, technology, information) in response to emergent conditions to the state agreed to in the value proposition as represented in the SLA, corresponds to his view that adjustments, or adaptations, are inevitable and socially influenced (Macneil, 2001b, pp. 224-225).

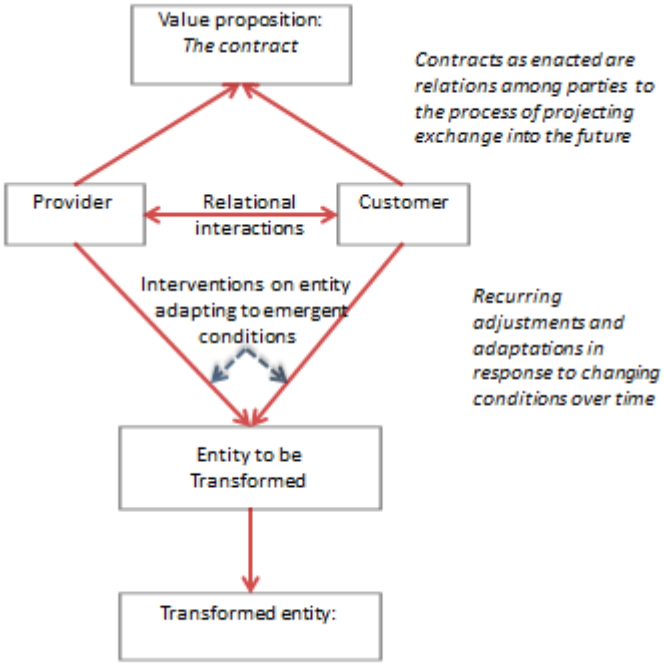

Figure 4 Relational theory of contract and service systems

Relational theory of contract views these interactions and interventions not as adaptations which deviate from the rules, or indicate immature processes, but as part of the process of dealing with the unplanned and the unpredictable; with ambiguities and the influence of over-arching norms. All of these are essential to contract performance. The benefit of taking this view of contracts into account in our study is that it enhances our ability to understand what is happening in practice

3.8 The unit of analysis

Notwithstanding the overall appropriateness of the theory for our purposes, our aim in this study is not to attempt to operationalise Macneil's theory. Firstly, as we discussed earlier, this has not yet been successfully achieved. Secondly, although Macneil acknowledges that a large number of people engaged at various levels in two contracting organisations can develop primary relations which are significant in determining the manner in which the exchange is carried out (Macneil 1981, pp. 108-109, cited in Blois, 2002), his unit of analysis is essentially the aggregation of relations that comprise a relationship (Blois, 2002). Our purpose is not to study relationships *per se* but to understand, *inter alia*, the "micro interpersonal linkages" (Whetten, cited in Blois, 2002) of everyday practices of SLA enactment. The terminology we will use for these is "relational interactions", which more precisely fits our level of analysis than Gadrey's (2002) term "service relations" or Macneil's (1980) term "relations among parties".

Because Macneil's discourse largely relates to contract enactment at the macro level, not all the contract elements are appropriate to be used as constructs in our study. Three elements (1, 2, and 12 in .

Table 7 above) however suit themselves well to our aim of understanding SLA enactment. These are: relational type, which can guide us to a nuanced view of relational interactions; measurement, which enables us to explore how relational interactions and intervention are valued, and by whom; and participant views, which helps us look for multiple perspectives on the practices of enactment. In addition, because of their overarching nature and the relevance to that of the overarching conditions of the master agreement of a CITi-B2B service contract (described in Chapter 2), we refer to the three dominant norms that strongly influence adaptive behaviour in contract enactment. These are role integrity, preservation of the relation and harmonisation of relational conflict, (see Section 0 above), to help us gain insight into the dynamics of SLA enactment.

3.9 Conclusion

In this chapter, we have described how Macneil's relational theory of contract accounts for context-dependent phenomena which are under-represented in classical theory of contract law. We demonstrated how his representation of contracts as complex, relational, emergent, and adaptive is congruent with our understanding of the nature of service systems, as discussed in Chapter 2. We then outlined the scope and influence of his theory on other disciplines, presented critiques of it as well as instances of its operationalisation. Finally, we explained how we use the theory as a perspective to enrich our understanding of the enactment of SLAs in CITi-B2B services and illustrated the appropriateness of the theory for our study by mapping it to our service system representation.

In the following chapter we introduce ethnography as our methodology and explain its suitability for capturing the details of everyday practices of SLA enactment over time, based on Macneil's (1980) nuanced view of the nature of contracts. We then describe the settings of our fieldwork, the selection of a service to study, our methods of data collection and analysis and our entry to the site.

CHAPTER 4: Methodology and setting

"Ethnography, like quantum mechanics or the Italian opera, is a work of the imagination, less extravagant than the first, less methodical than the second"

(Geertz, 1988 p.6).

4.1 Introduction

In the previous chapter we argued that the theoretical perspective provided by Ian Macneil's relational theory of contract (Macneil, 1980) highlighted the context-dependent but under-represented phenomena of SLA enactment, such as intense relational interactions and adaptive interventions, we identified in our description of a service system in Chapter 2. The theory represents contracts as complex context-dependent phenomena with relational, emergent, and adaptive properties. Macneil argues that while these properties are evident in contract enactment and play a significant role particularly in complex long-term contracts, they are largely unrepresented in the legal document known as the contract. He acknowledges that this gap between the abstract representation of the contract (the legal document) and the actual contract as performed is inevitable, but that understanding its nature is important for managing the performance of contracts.

To understand better the enactment of an SLA for a CITi-B2B service, we needed a research methodology that gave us access to everyday practices over time from multiple points of view, and which was consonant with our theoretical perspective

and our service system representation. We chose therefore an ethnographic approach. While forms of ethnography vary, at its core, it seeks to understand events in context, from multiple participants' perspectives (Geertz, 1973b), in order to "enlarge the possibility of intelligible discourse" between people who are different but connected (Geertz, 1988 p.147). In our case, that might be designers and users; researchers and practitioners; providers and customers; operators and managers. Ethnographers also argue for diversity of interpretation as an alternative to authoritative representation (Harvey, 1997). In our study, events in context were the daily practices of SLA enactment we witnessed and recorded as they occurred in their normal environment. Multiple perspectives came from the variety of participants we encountered, from FINserv, SERVit and other organisations. Ethnography's methods of detailed and contextualised observation and interaction enabled us to explore unwritten and often unspoken details of relations, interventions, adaptations, and transformations that emerged in the everyday practices of a service. Adopting this approach in our research, we aimed for a descriptive and holistic view of IT-intensive service systems. A strength of the approach was that it is necessarily ideographic and qualitative thus providing a novel understanding of the relationship between an SLA and its enactment.

In the following sections, we first outline the main constructs and practices of ethnography and its application to technology studies. We proceed to describe the setting of our research, the selection of a service to study, our methods of data collection and analysis and our entry to the site

4.2 Ethnography

The term ethnography (literally, writing about people) is typically used to describe a research methodology which includes gathering, organising, interpreting and analysing data from extended firsthand observations of social groups in natural settings and producing a written text whose purpose is to increase understanding of the group by others (van Maanen, 1988). Traditionally, anthropologists have used ethnography to describe and explain bounded social groups, as for example in Srinivas' South Indian village (1976) and Douglas' Lele tribe of the Congo (1963).

However it is also used as a way of describing and explaining phenomena such as an academic organisation (Bailey, 1977), economic institutions (Douglas, 1986), human-technology interactions (Orr, 1996), expert evidence (Rigby and Sevareid, 1992) friendship within a specific social group (Jacobsen, 1973) and police work (Manning, 1977). Whether the ethnographer's subject is an Indian village, an academic department or a corporation, the work of ethnography has three foundational aspects: being in the field, access to observation and firsthand accounts, and the production of a written text (Emerson, 2001, van Maanen, 1988). Understanding of these practices however is not uniform; epistemological approaches to ethnography are varied (Emerson, 2001 pp. 1-2). They range from a naturalistic view of surveying, observing and describing social phenomena to interpretive, reflexive understandings of social phenomena where not only is the ethnographer's influence acknowledged but the description itself is considered part of the social world being described (Emerson, 2001, Geertz, 2000). In addition to traditional ethnography, disciplines other than anthropology (sociology and ethnomethodology for example), use ethnographic techniques such as observation and interviewing to gather material for analysis and insight generation according to their particular methods.

4.2.1 Being in the field

Historically, for ethnography, being in the field meant a detached researcher surveyed, recorded and classified information in the naturalistic model, about unfamiliar social groups often considered by the researcher to be inferior to his own (Emerson, 2001). Over time, this model shifted to one of immersion, which "demands the full-time involvement of a researcher over a lengthy period of time ... and consists mostly of ongoing interaction with the human targets of study on their home ground" (van Maanen, 1988 p.2). Bronislaw Malinowski in particular pioneered (Kuklick, 1991) the practice of living "right among natives" (Malinowski, 1922 p.6), spending three years living in a village of the Trobriand Islands of Papua New Guinea, communicating in the vernacular and immersed in the daily life of the inhabitants (Malinowski, 1922). A similar model of immersion can be found in Bruno Latour's and Steve Woolgar's, two-year stint in a Salk Institute laboratory in

La Jolla, California, carrying out an anthropological study of the production of scientific knowledge in a biomedical laboratory (Latour and Woolgar, 1979).

4.2.2 Observation and first-hand accounts

Observing social situations first-hand over time comes with this immersion. Targets of observation might include the physical environment, the actions, discourse and relations of actors, (Spradley, 1980 p.39), and the affective environment. For example, Malinowski (1922 p.59) describes work in the village garden as:

> Much time and labour is given up to aesthetic purposes, to making the gardens tidy, clean, cleared of all debris; to building fine, solid fences, to providing specially strong and big yam-poles. All these things are to some extent required for the growth of the plant; but there can be no doubt that the natives push their conscientiousness far beyond the limit of the purely necessary.

And, Latour and Woolgar (1986 p. 16) describe work in the laboratory as:

> Every morning, workers walk into the laboratory carrying their lunches in brown paper bags. Technicians immediately begin preparing assays, setting up surgical tables and weighing chemicals. They harvest data from counters which have been working overnight. Secretaries sit at typewriters and begin recorrecting manuscripts which are inevitably late for their publication deadline ... there are conversations, discussions and arguments ... by the end of the day the atmosphere becomes more relaxed ... there are jokes in the lobby.

First-hand accounts by participants also provide data for the ethnographer. These accounts may be elicited through reflexive interviewing (Hammersley and Atkinson, 1995 p. 152) which allows interviews to proceed based on the informants responses to open questions (e.g., "what do you hear about *x*?", "how do you go about doing y?"). Participants may also spontaneously offer accounts as part of informal conversations with the researcher.

Verbal accounts are not the only accounts that might be available to the ethnographer. Documents such as reports, procedures, notes, letters, instructions, plans, notices and diagrams are also relevant and "must be examined, not relied on

uncritically as a research resource" (Hammersley and Atkinson, 1995 p.168). The distinction between the documented cannon of technicians' repair manuals and the technicians' observed practices of repair, for example, lies at the core of Orr's (1996) study, whose goal was:

> To gain an understanding of the technicians' work as they do it and as they understand it, and to use that understanding to look at the question of the relationship between work as it is done and work as it is described or prescribed. (Orr, 1996 p.13)

Observation and accounts collected in these ways are generally recorded in field notes together with the ethnographer's comments. This unstructured data is then analysed, coded and annotated to become the basis for the ethnographic text.

4.2.3 The ethnographic text

Ethnographers' understandings of what they have seen and heard and of the nature of their ethnographic text vary depending on their epistemological positions. From a realist perspective, the detached observer objectively mirrors, through a literal description, phenomena that have pre-established and invariant meanings, (Emerson, 2001 p.20). From an interpretive perspective, as ours is, the ethnography is a construction inevitably filtered through the ethnographer's conscious and subconscious processes as well as through informants' processes of sense-making (Emerson, 2001 p.22). It is a form of knowledge based on a search for meaning using "our own constructions of other people's constructions of what they and their compatriots are up to" (Geertz, 1973a p.9). A reflexive approach explicitly acknowledges these elements of the ethnographic process (Emerson, 2001 p. 36).

Fundamental to an interpretive, reflexive approach to ethnography is the concept of thick description. Geertz (1973b) borrowed the term from its originator, the philosopher Gilbert Ryle, who had used it to describe the layers of interpretation from multiple perspectives involved in giving meaning to observed phenomena in everyday life (Ryle, 1968). (A simple example of these layers would be the different interpretations of a speaker's utterance made by the speaker, the intended audience,

and an observer.) For Geertz thick description is ethnography; a description that captures:

> A multiplicity of complex conceptual structures, many of them superimposed upon or knotted into one another which are at once strange, irregular, and inexplicit, and which [the ethnographer] must contrive somehow first to grasp and then to render. (Geertz, 1973b)

The interpretive nature of the ethnographic account and its concern with local meanings has become accepted to the degree that thick description has provided a general model of and justification for pursuing meaning-rich, context-sensitive, and holistic descriptions of social activities (Emerson, 2001 p.33). Interpretively understanding and representing local meaning discovering "who these people they think they are, what they think they are doing and to what end do they think they are doing it" (Geertz, 1988 p.16). The purpose of such understanding and representation is not to generate laws but to generate meaning (Geertz, 1988 p.147) and direct readers toward "novel modes of seeing the world" (Lederman, 1990 p.86).

4.3 Ethnographic studies of work practices

Ethnography is also used in organisations to focus on qualitative aspects of behaviour in work practices, yielding insights from which both theoretical and practical outcomes may be derived. The study of work practice itself shows work to be generally different from and more complex than is usually assumed (Orr, 1996 p.1), and the use of ethnographic methods is well established as a way of breaking down and understanding those differences, complexities and assumptions. Fundamental to this is the work of Anselm Strauss al. (1985), which explored the relationship between the empirical evidence of medical practices and the abstract representations of them, revealing ways in which activities were ordered. Activities are not, the authors argued:

> automatically organized into pregiven abstractions. Someone does the ordering … Every ordering is itself anchored in a series of contingencies, and every anchoring embeds a patterning that can be viewed theoretically (Star, 1991b pp. 265-266).

Strauss et al. (1985) then refer to this ordering as "articulation work", which is characterised by: activities that must be done to ensure that collective efforts "add up to more than discrete and conflicting elements"; getting things back on track in the face of the unexpected; and adapting to inevitably disruptive conditions. This view of the gap between abstract representations and work practices is particularly congruent with our aim to expand our understanding of the practices of SLA enactment.

4.3.1 Ethnography in technology-related research

The use of ethnography in technology-related research as a means of understanding a complex phenomenon in practice is well established (Suchman, 1987, Zuboff, 1988, Orr, 1996, Myers, 1999, Klein and Myers, 1999, Orlikowski, 2002, Harvey and Myers, 2002). One important contribution of previous ethnographic research on IT-related problems is to challenge canonical representations of IT artefacts or processes. This has highlighted the critical gap between the abstract representations of what happens (e.g., plans, procedures, contracts) and what actually happens in practice: the processes, human interactions, and interventions needed to provide continuity of services (Suchman, 1987, Zuboff, 1988, Orr, 1996). Using ethnographic methods to assemble data to understand the nature of practices under-represented in their canonical forms, such studies have challenged canonical relevance and re-framed our understanding of the phenomena being observed. The following examples illustrate this.

Suchman's (1987) study on artificial intelligence design challenged the dominant model of human–machine communication: that cognitive abilities attributed to humans could be encoded into machines, revealing the inadequacy of that cognitive model for human-machine interaction by showing its failure to account for the way humans act in practice situated in particular social and material circumstances. The impetus for her research was a machine whose interactive interface was based on an expert help system designed in the planning-based tradition of artificial intelligence (AI). It was supposed to be easily intelligible to its users but was in fact was consistently confusing to them (Suchman et al., 1999). Challenging the adequacy of

AI and the cognitive science on which it was based to represent and account for everyday practice, Suchman's aim was:

> To suggest that the relation of plans to action was not a controlling one ... that action is always situated in the context of particular, concrete circumstances ... which are never fully anticipated and are continuously changing around us. (Suchman, 2007 pp.13,26)

Observing and recording interactions between the machine and its users, she applied principles of discourse analysis to those interactions. Her analysis demonstrated that neither the machines nor the users could understand each other's responses because, she argued, each operated from different models of discourse. Previous findings from discourse analysis had shown that human responses in interactions are contingent, emergent, contextually situated and adaptive; computationally expressed procedures to interpret those responses therefore needed to account for those conditions (Suchman et al., 1999). Cognitive science on the other hand, they wrote, holds that:

> An adequate account of any phenomenon ... is a formal theory that represents just those aspects of the phenomenon that are true regardless of particular circumstances (Suchman, 2007 p.176).

Suchman concluded that the machine's programmed interactional repertoire therefore was based on an inadequate model of discourse for the circumstances; it not only lacked those abilities, its assumptions about the user's intentions led to confusion and lack of intelligibility (Suchman et al., 1999). The failure of the machine's design to account for how human responses are situated in the particularity of circumstance, she argued, was a failure to design for fundamental asymmetries between humans and machines as interactional partners (Suchman, 2007).

Zuboff (1988) too used ethnographic methods to challenge the canonical view of automation. Her five-year study of workers' use of IT in manufacturing, clerical and banking workplaces, examined the changes it wrought in their behaviour and attitudes, in the nature of their work and in their role within the power structure of the workplace.

> The same systems that make it possible to automate office transactions also create a vast overview of an organization's operations, with many levels of data coordinated and accessible for a variety of analytical efforts. (Zuboff, 1988 p.9)

She concluded that the potential for automation to "informate" fundamentally reframed the ways in power could be exercised within an organisation. Information could be used as a tool of empowerment or subjugation depending on who determined what would be collected, how it would be used and who would use it (Zuboff, 1988). By reframing the role of IT within an organisation from automating to informating, she made those choices explicit.

Orr (1996), prompted by an organisation's attempt to rationalise repair procedures, observed photocopy technicians carrying out what were deemed rote procedures for fixing standard machines. The idiosyncratic and contingent nature of the problems, and the extemporaneous practices the technicians used to solve problems however proved resistant to rationalisation (Orr, 1996 p.1). Witnessing their conversations, he understood that they solved their most difficult problems not by using information from their manuals, but by literally "talking about machines": narrating repair stratagem from other seemingly intractable situations. The dominance of the instrumentality of socially constructed narrative over rules in diagnosis and problem solving explained technicians work in a new way (Orr, 1996 p.43) and later influenced the development of computer-based tools for technicians (Suchman et al., 1999).

IS research that uses ethnography constitutes a small percentage of empirical studies in that field (Brown, 2014). Citing surveys of empirical research represented in major IS journals conducted between 1993 and 2012, Brown (2014) reports that the percentage has remained low: 3% between 1993-2000 (Mingers, 2003); 1% and 7% in Management Information Systems Quarterly (MISQ) and Information Systems Research (ISR) respectively between 1999-2009 (Cardoso and Ramos, 2012); and 2.2 % in Information Systems Journal (ISJ) between 1991 and 2012 (Avison and Fitzgerald, 2012). This is not surprising perhaps, given the amount of time and the intensity of effort needed for conduct an ethnographic study; not to mention the difficulty of getting access to sites. Nevertheless, there are a number of significant

contributions made to the field by IS researchers using ethnography. Baskerville and Myers (2015) point for example to scholars who have used ethnography to study: IS development and implementation (Myers & Young, 1997; Lee & Myers, 2004); IS management (Davies, 1991; Davies & Nielsen, 1992); the relationship between IS and organisations (Orlikowski, 1991; Orlikowski & Robey, 1991).

Other ethnographies have highlighted important aspects of IS practice also. For example, Schultze (2000) carried out an eight-month ethnographic study of the practices of three distinct groups of knowledge workers in IS and identified three informing practices of their work: ex-pressing, monitoring and translating, common to all three groups. Schultze and Orlikowski's (2004) study on integrating self-service technology into embedded inter-firm relationships at the micro-level highlighted how macro-level phenomena such as inter-firm relations are created and recreated through the micro-level actions taken by firm members. Levina's (2005) in-depth field study of a web-based application development project with participants from diverse fields revealed that the multiparty collaborative practice can be understood as a cycle of collective reflection-in-action, through which IS design emerges. Blomberg's (2008) examination of the interactions between IT outsourcing executives and their clients suggested a need not just to share information but for members of both organisations to share the meanings they gave that information in order to more accurately characterise, assess and negotiate their ongoing relationship. Subsequently, this insight informed the design of a dashboard style portal. Perhaps the most unusual setting for an IS ethnography to date has been an outer-planet orbiting NASA mission, which provided an opportunity for an ethnographic study of socio-material relations in IS research, (Mazmanian et al., 2014),

Studies of IT service delivery within a very large-scale global service delivery centre have used ethnography, along with other methods, to understand and improve the delivery of IT services. It service delivery is characterised by interacting systems of technology, people and organisations, where work is dynamic, risky, complex collaborative, long-spanning; and sometimes planned but other times reactive; and invites a variety of methods, including ethnography (Kandogan et al., 2009). Since 2002, researchers from within the organisation have carried out series of studies,

with the goal of developing a deep understanding of IT service practices using naturalistic observation, contextual interviews, surveys, and diary studies (Maglio and Bailey, 2012). These studies, including eleven field studies, have focused on the work of systems administrators which is characterised by the complexity of rapid change, day-to-day demand fluctuations combined with long processes and substantial collaboration to configure and operate (Barrett et al., 2004). Combining ethnography with other complementary methodologies has characterised these studies; contextualised interviews provided motivation, history, and descriptions of exceptional events; surveys gave information related to these findings across broader time scales and populations albeit with less detail (Kandogan et al., 2009). De Paula et al. (2012b) argue that not only is combining ethnography with other methods beneficial, it is critical in the support of large-scale work practice research.

One of the newer methods used in these studies to complement ethnography is social analytics. This involves the use of data mining and social network analysis to investigate the underlying pattern of interactions that emerge from human "traces" left behind when utilising various kinds of digital media: collaborative systems, social media, task management systems, or workflow management systems, for instance, (de Paula et al., 2012a). This combination of social analytics and qualitative research, the authors argue, has the potential to shed new light on the seemingly invisible ways that workers of highly complex, distributed, and interdependent organisations accomplish their work (de Paula et al., 2012a). Indeed "ethno-mining" the joining of ethnography with data analytics and behavioural tracking technologies is fast becoming a corporate tool (Anderson et al., 2009).

Ethnography is also widely used as a resource for design, to give designers and developers a way to understand what people actually do every day in diverse settings in order to provide tools appropriate for the setting in which they are to be used (Blomberg et al., 2002). Through an ethnographic study of globally-distributed sales teams Cefkin et al. (2007), for instance, showed that the way enterprise-wide tools are integrated into daily practices impacts organisational relations and information exchange. Analysis showed that different approaches to using standardised tools and processes had variable impact on team relations, leading to the authors' conclusion the design and use of technologies should be informed by an understanding of the

contexts of their use and their impact on organisational relations. Field studies of large-enterprise systems administrators have also uncovered the misalignment between the work practices of systems administrators and their tools, leading to a set of guidelines for tools to better support how the systems administrators actually work (Haber and Bailey, 2007).

Fundamental to these studies, is contextualising events in their local circumstances, understanding local meanings, synthesising multiple perspectives and reframing our understanding of the nature of what is happening. From plans to situated action, automating to informating, rule based problem solving to narrative driven diagnosis, meeting the metrics to achieving customer satisfaction; exposing the under-represented and reframing each of these phenomena allows different choices to be made by stakeholders.

4.4 This ethnographic study of a complex IT-intensive B2B service

Our study was of a particular phenomenon: the enactment of a commercial contract (an SLA) between two global organisations, for the EUCS. This service supported (on-site and remotely) FINserv's EUC environment (desktop computers, laptops, printers, mobile devices, local area networks and servers for email, directory, print and file services; as well as applications for access, authorisation, office management/productivity, email, notes management, messaging and filesharing). In the terms of our service system representation, the EUCS SLA incorporated the value proposition and the entity to be transformed was EUC environment, which was to be maintained in the state agreed to in the EUCS SLA. Requests for support and responses to that were examples of relational interactions and the subsequent actions by the provide and customer, such as fixing a break in a component of the EUC environment, were the interventions on the entity to be transformed to the state agreed to in the SLA, (see Figure 5 below.)

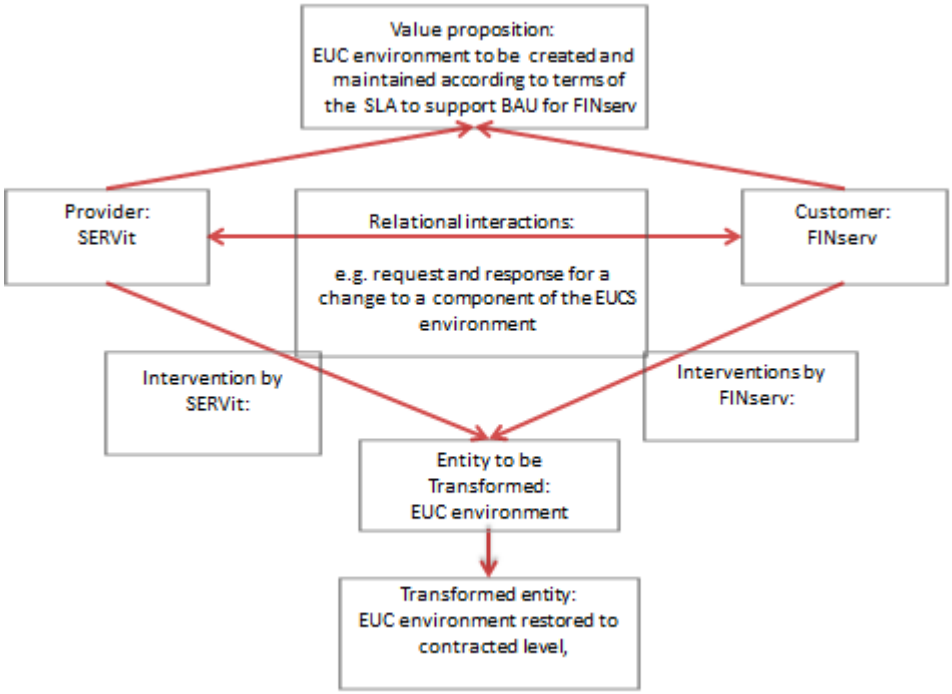

Figure 5 The EUCS as a service system

Using ethnography, we took the position of a situated observer (Geertz, 2000 p.137), making contact with a diverse group of people involved in enacting the SLA who were willing to talk about and be observed at their various activities during that enactment. These conversations and observations gave us multiple perspectives on the relational interactions, adaptations, and interventions of everyday practice. Analysing the rich descriptions we collected in this way, we generated insights into the patterns of behaviour we observed as participants managed the enactment of the SLA. Our service system representation was particularly apposite to an ethnographic approach as it acknowledges the significance of typically unrepresented or under-represented phenomena, such as relational interactions and adaptive interventions. We illustrate this in Figure 6 below.

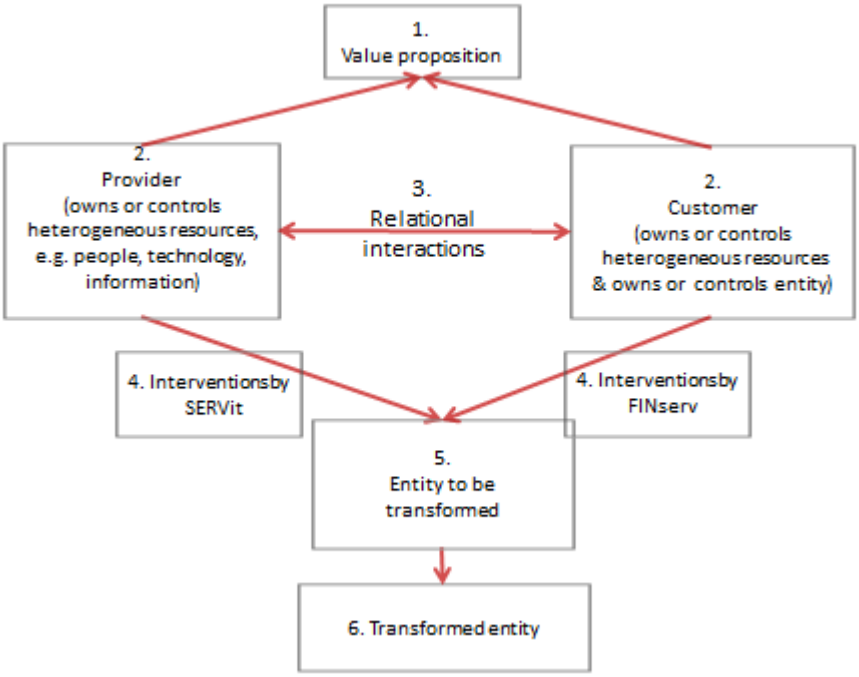

Figure 6 Ethnographic processes in relation to the service system representation

1. Ethnographer is told (in general terms) the conditions of the value proposition (the SLA.)
2. Ethnographer elicits accounts which represent the perspectives of people who are different but connected, e.g. provider and customer
3. Ethnographer observes relational interactions among parties to the contract as they negotiate interpretations of the contract in emergent conditions
4. Ethnographer observes/is told of interventions which unfold in response to emergent conditions
5. Ethnographer observes/is told of the entity to be transformed
6. Ethnographer observes/is told of the outcome of the interventions.

4.5 Setting of the study

Our study was largely set in the offices of a global financial services organisation, FINserv to whom SERVit, a multinational provider of technology services, provided a suite of CITi-B2B services as part of a long term contract. In this section, we

describe the selection of the setting and the negotiations for access to it, the two organisations who were party to the contract, details about FINserv's other technology service providers and factors in the environment outside SERVit and FINserv which impacted events during the course of our study.

4.5.1 Selecting a field site and negotiating access

It was neither simple nor quick to gain access to a site in which to observe the enactment of an SLA over time. Ideally, we wanted a site which:

- was large-scale and global, as this is a prevalent model CITi-B2B services,
- enabled access to the provider and customer's management and operational staff, so we could get multiple perspectives of the service,
- had relatively mature service governance and management processes so that the relations and interventions of enactment were not dominated by the kind of remediation which results from immaturity in those areas.

After initial contact with SERVit at the end of 2005, serious discussions began in late 2006 on the feasibility of conducting a research project with them on the site of their customer, FINserv, where they had an account team embedded as part of a long-term contract to deliver application hosting, service integration, Help Desk, end-user computing and project services. By January 2007, we had an agreement in principle to the project from both organisations at the appropriate level. It took another eighteen months for the details of the engagement to be finalised in both organisations but finally in July 2008 we signed the necessary confidentiality agreements. Later that month we were inducted into the customer organisation at its global headquarters. The exigencies of commercial realities and the need for further legal negotiations however, delayed entry to the site where we would conduct the research until October 2008. We were then on site until the end of June 2009, with access to participants for follow up questions and reviews until the end of 2009. The following year we analysed date and began writing the ethnography. While enthusiasm for the project was generally high in SERVit and FINserv, the task of coordinating and securing agreement in all the necessary areas was not trivial. This was understandable given the commercial nature of the circumstances and the

novelty of the request but provided us with considerable challenges to overcome in the years up to our entry to the site.

We were faced with four major challenges during that negotiation period: motivating the organisations to participate, finding managers willing to engage with the project, overcoming legal obstacles, and dealing with inevitable delays. Firstly, we needed to provide compelling reasons for the two global organisations to participate. Because SERVit acknowledges the nexus between investment in research and generating business value through its own considerable research activities and its links with universities, particularly in the context of the expanding service economy, this project fell within the scope of its corporate research strategy. To then translate that into a motivation for the unprecedented step of allowing an external researcher sustained access to a specific operational site and the customer site as well, was a difficult task. Here, the reputation among practitioners of the difficulty of aligning SLAs and the service and the benefits our findings might contribute to improving the service provision for all stakeholders helped us gain critical support. In an exploratory meeting with SERVit, the regional director of operational services, a person of many decades' experience in IT service provision spoke of his experience of the "vital but overlooked side to the delivery of services", the "soft" side of IT services that is expressed in day-today practices. Acknowledging the potential value of a project that aimed to improve understanding of the relationship between the SLA and the service, he agreed in principle to the projects. "The story needs to be told" he said, "this could be fun". It was clear though that we had to be non-invasive, pose no threat to the site, nor burden either SERVit or its FINserv. It was a condition of the study that our findings benefit both organisations.

Secondly, to motivate managers to engage in our study, we made it clear that the story we were seeking was about the service itself and the relations and interventions that sustained it in daily operation. We emphasised the condition that our findings benefit both SERVit and FINserv and described the data collection process as building a detailed picture of what happens in SLA enactment predominantly by asking practitioners to describe and demonstrate what they do to deliver services successfully. Fortunately, this appealed sufficiently to the SERVit project executive and FINserv vice-president who would be responsible for the project in their

organisations. These two gave the project the momentum it needed by agreeing to a researcher form outside their organisations being immersed in, and observing, their activities on a daily basis for many months. So convinced were they that the project was worthwhile, that despite corporate level concern that the "engine room" would not be informative, as it was so procedurally oriented, the project executive acknowledged the potential value in having an outsider bring a new perspective. From his point of view, "the industry struggles with how to define SLAs and get best value for everyone and needs outsiders to help achieve best value for everyone".

Thirdly, we needed agreement from global and regional, provider and customer legal departments. We overcame objections on the grounds of confidentiality, security and the protection of commercial interests through advocacy from within the organisations and by signing non-disclosure agreements. In meetings with legal teams, we were finally able to allay fears that the project might be in any sense an audit or critique of performance against contract; our ethnographic approach and our focus on the phenomenon of the service itself helped to make that clear. The maturity and industry background of the researcher apparently also contributed to reassuring legal representatives.

Finally, the inevitable delays required resilience, patience and a belief that agreement in principle meant there would be a way of working together to actualise the proposed research. This did not mean that we were always able to manifest those virtues. Seasonal fluctuations in the provider and customer's operational cycles and available resources, the "exigencies of the business cycle", "being under the gun", the demands of end of quarter, the life stage of the contract, re-organisations and re-allocation of people were all part of the natural rhythm of commerce. They became part of the context for the study.

Eventually, the discouragements and frustrations of the lengthy negotiating period ended, helped by a cross-organisational affinal relationship and a social connection through an industry event. We were welcomed into the daily working lives of those who carried out the services. Ultimately, the richness of the interactions between the researcher and the participants in delivering the service was only possible because of their willingness to be observed, to recount and to reflect. At every stage in

overcoming obstacles to realising this project, champions within SERVit and FINserv cleared the way. They negotiated in their own organisations and with each other's. They intervened where necessary, supported our cause, and helped us identify the potential benefits for SERVit and FINserv of collaborating in the project. Without these people, the project could not have happened. Three individuals in particular were outstanding in their continued support: SERVit's University Relations & Development Manager, SERVit's project executive for the contract and one of FINserv's vice presidents.

4.5.2 Players in the field

The two major players in this study were SERVit and FINserv, both of which were organised in forms of global networks. FINserv provided a broad range of financial and related services to businesses and individuals globally. SERVit provided IT-intensive services for FINserv under a contract for services which included server hosting, service integration, Help Desk, end-user computing, and projects. The contract is described in more detail in the following chapter.

FINserv was a global organisation operating in one hundred and thirty countries grouped into regions. Decision-making was centralised in its global headquarters which was responsible for the matrix consisting of five regions, eight business units and a set of competency towers (grouped by function, e.g., technology). FINserv's technology tower (FINserv Tech) provide services to FINserv's business lines based on internal agreements with a technology lead in each business unit as the central point of contact. For its technology, FINserv had a multi-vendor outsourcing strategy, with FINserv Tech (its retained technology organisation) as its nominal integrator and relationship manager. This role was not fully developed at the time of the study; a FINserv Tech team servicing a particular business line had multiple interfaces with providers and some integration functions were outsourced to SERVit. Towards the end of the study however, reorganisation saw FINserv Tech's integrator role strengthened.

SERVit was a multinational technology and consulting firm operating in over one hundred and sixty countries, organised into semi-autonomous regions. In this

structure, many decisions were made regionally including agreement to provisioning a global contract. It provided services globally for FINserv, drawing on its global matrix of human and technical resources which were organised by competency towers and region.

The site of this study was one of FINserv regional headquarters covering eleven countries, six time zones, and ten languages. Some SERVit staff dedicated to the contract were collocated with FINserv staff in these headquarters. The SERVit staff were executive, managerial, operational, technical and administrative, allocated to the account from SERVit's competency towers with reporting lines remaining in the towers. The study was conducted in two of FINserv's city locations: the "Ark" building (housing its call centre and service hubs) and "Mary St" (housing regional headquarters, marketing and front office functions) as well as in SERVit's outer-urban service hub: "Treetops".

4.5.3 The web of service providers

Enacting the contract between FINserv and SERVit depended on more than just these two partners. Typical of large scale sourcing arrangements was the network of multiple, interdependent technology services vendors involved in contributing to end-to-end servicing of FINserv's business outcomes. The services they provided included network, storage, applications, process consulting, server hosting, Help Desk, service integration and end-user computing. The resources for these (e.g., people and technology) were globally distributed across multiple heterogeneous domains of control. At the start of our project, there were six other service providers, by the end of the study: seven, all operating in a complex web of formal and informal relationships reflecting the multifaceted nature of value creation for FINserv. Figure 7 below, illustrates some, but not all, aspects of that web (for example, the relations among the other technology service providers are not shown).

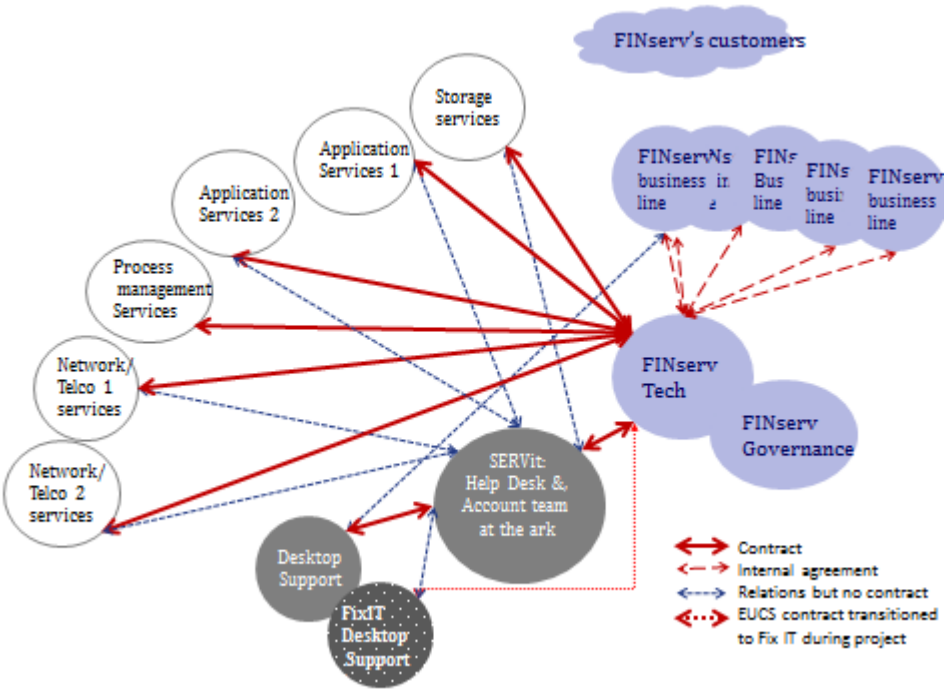

Figure 7 The web of service providers

The mechanisms for coordinating this complex configuration of providers were still somewhat in development when we entered the site. Contractually, SERVit was responsible for maintaining business capability, i.e. the end-to-end availability of services, through coordinating the other providers to ensure that, regardless of who was ultimately responsible for an outage, availability was restored. Availability management, incident/problem management and change management were the mechanisms in place for achieving this. However, these terms did not give SERVit any control over other providers, and FINserv recognised the sub-optimal nature of this by planning for new functions to integrate and manage providers around the globe. We illustrate how this coordinating function operated in Chapter 6 and discuss it further in Chapter 7. Delivering value to the customer and provider in this type of inter- and intra-organisational configuration was complex and challenging (Blomberg, 2008), involving not just planned activities, but also activities carried out by ad hoc event-driven teams assembled from across departments, technology service providers, and geographic regions in response to severe service failures.

4.5.4 Environmental factors

Two factors were particularly influential in determining events in the course of this study: the global financial crisis and SERVit's loss of the contract for the EUCS. Shortly after the study began, FINserv's share prices dropped by around eighty percent. Apart from the obvious pressures this imposed on FINserv, it also increased pressure on SERVit to achieve efficiencies above those already expected. Towards the end of the study, the EUCS contract reached its renewal point and SERVit lost the contract to a competitor. This introduced another layer of complexity to the web of services as SERVit then became responsible for assisting in the migration of the EUCS to a competitor, FixIT, and re-integrating that service into the end-to-end service delivered to FINserv.

4.5.5 Selection of the service to study

We chose the EUCS as the subject of the study for four reasons. Firstly, its ubiquity: fifteen thousand end-user devices in the region alone made it the most widely used service. Secondly, the visibility of EUCS devices facilitated observation. Thirdly, it had the lowest level of commercial sensitivity among the services of the contract, making it easier for us to negotiate access to it. Finally, being the single point of access to all services provided by SERVit and the other providers it embodied the interdependence of all the services in the web. The EUCS as represented in its SLA is described in detail in the Chapter 5.

4.6 The fieldwork

> *Long term observational fieldwork is not something to be done on an occasional afternoon*
>
> (Barley, 1990 p.244)

In this section, we introduce the specific locations of our study and its timeframe, the rationale for our choice of a particular service to study, the participants in the study,

our means of eliciting and recording information and our methods of coding and analysis. We conclude the section with a description of our entry to the site.

4.6.1 Location and timing of the study

For nine months, we spent an average of three days per week on FINserv and SERVit sites. For most of this time, we worked from a desk in FINserv's "Ark" building, part of its regional headquarters. In this building, SERVit occupied most of the west wing of a floor, while past the central tearoom on the floor, the east wing housed staff from FINserv Tech, other service providers (e.g., telecoms and application providers) and a few SERVit staff. The floor held approximately one hundred people and was open office style with central meeting rooms. Although the people were mostly arranged in groups according to their organisational affiliation, there were no physical barriers among groups. We also spent time at SERVit's "Treetops", and at the "Mary Street" building also part of FINserv's regional headquarters. Table 9 below outlines the major activities we carried during the period on site.

Table 9 Researcher's activities during the period of the study on site

	Month								
Activities	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Introduction to the site and familiarisation	√								
Observing, interviewing and discussing	√	√	√	√	√	√	√	√	√

Recording observations and conversations in fieldnotes and reflections and insights in headnotes	√	√	√	√	√	√	√	√	√
Logging details of process and progress in journal notes	√	√	√	√	√	√	√	√	√
Transcribing interviews							√	√	√
Analysing data and writing analytical memos			√	√	√	√	√	√	√
Coding data: identifying patterns, themes, distinguishing features and relationships									√
Debriefing with advisors and SERVit project executive	√	√	√	√	√	√	√	√	√
Wrapping up and reviewing									√

4.6.2 Multiple perspectives of SLA enactment

FINserv Tech staff who participated in discussions, interviews and observations included:

- the global governance lead,
- the regional Vice President,

- the regional governance lead,
- business analysts
- relationship managers
- the regional Vice President for the FINserv customer call centre.

From SERVit we had access to:

- the regional project executive
- delivery project executives,
- a program manager,
- project managers,
- service delivery manager,
- business and finance managers,
- solution architects,
- call centre staff
- Help Desk managers and staff,
- technical support staff,
- desktop team leader,
- Desktop Support staff
- a contract advisor.

We also had informal access to some staff from some of the other technology service providers.

4.6.3 Observations: watching and listening

The commercial nature of the contract and constraints of confidentiality and security naturally restricted access to some situations, particularly formal meetings. However, being embedded in a worksite of around one hundred people on the same open-plan floor (strategically placed in the middle of the most active area) and having access to the common recreation area meant that observing daily scenes of contract enactment became accepted as routine. We observed interactions between provider and customer, provider and co-providers, the provider and its providers as well as

interactions within these groups. These interactions included formal and informal conversations (face to face or by phone), email, instant messaging and some meetings. We also observed participants interacting with each other online through the Help Desk and other service management applications, through individual and communal knowledge repositories and through instant messaging and through other reporting tools, such as a notes management application. At Treetops, we sat in with Help Desk and technical support staff while they carried out their work routine. The soundscape of the office also drew our attention. Volume and tone of conversations, without hearing the details, often alerted us to events such as outages, successful problem resolution, an approaching deadline, or the coming lunchtime basketball game. Initially our observations were wide-ranging; over time, as our contextual understanding grew, the focus narrowed to those particularly meaningful to the EUCS (Sanjek, 2002 p.299). Learnings from our observations influenced what we looked for and asked about and so did the development of analytical ideas, each discovery opening up new possibilities for interpretation. We recorded our experience of what we saw and heard in fieldnotes immediately or shortly afterwards.

4.6.4 Eliciting information

4.6.4.1 Conversations

Conversations in which the researcher could participate were numerous. They were constant in this busy open-plan office where many different roles intersected. Conversations often came about as a result of a meeting that took place nearby or after an event such as a critical service failure, when participants thoughtfully explained to us what had happened and encouraged us to ask questions. Conversations were also plentiful in the common areas where people from the other technology service providers mixed with FINserv and SERVit staff. As Sanjek (2002 p.299) suggests can happen, many conversations soon included the researcher (aided in some cases by professional, social and cultural ties). Our conversations took place in the office, the common room, while walking outside, in nearby coffee shops and in distant cafes. From these conversational opportunities we gathered both solicited and

unsolicited firsthand accounts (Hammersley and Atkinson, 1995) relevant to our study, on a daily basis from participants from SERVit and FINserv as well as from other providers. Curiosity about the motivations and methods of our research often prompted conversations and describing our goal as to "tell the story of a service" elicited generous contributions; we collected these in fieldnotes.

4.6.4.2 Interviews

We also conducted forty-eight open-ended interviews of thirty-four participants. Some of the interviews were targeted; others emerged as our understanding of the site grew. Interviews were particularly important to us where we did not have repeated access to the participant. Mostly they took place in meeting rooms and occasionally in cafes. Our goal in using open-ended interviews (Spradley, 1979) was to encourage the interviewee to recount and reflect on their everyday role in the enactment of the contract and its SLAs. From this, we would then encourage them to expand in areas of their and our particular interests. We began interviews by explaining the purpose, the terms of confidentiality, the interviewee's right to control the interview, to examine records of it and to ask for it to be withdrawn from the record. We then typically proceeded to a "grand tour" (Spradley, 1979) opening question, such as "can you tell me some of the things you've done today (or this week) as a ...?". Depending on where the interviewee took us, we would then further explore their behaviours, opinions, feelings and knowledge (Sanjek, 2002). Where appropriate, we also asked them to tell us about an EUCS incident in terms of who was involved, what resources were involved, what relations and interventions took place, what the nature of the entity to be transformed, why the event occurred and what happened as a result. We concluded interviews by asking for suggestions about questions we should have asked but did not. Finally, we asked: "if you had a magic wand, what would you do about ...?" This question revealed some deeply held values and beliefs about enacting SLAs. More than half these interviews were sound recorded and later transcribed, the remainder were recorded by note taking during the interview. In some cases, we turned off the recorder during interviews to encourage openness.

4.6.4.3 Documents

Access to documents was more limited than we had hoped because of the commercial nature of the circumstances and the security and confidentiality provisions. We relied instead on authoritative reports of documents such as the contract and SLAs, reports to governance meetings, policies and procedures. We did have access to some documents of procedures and background documents.

4.6.5 Recording and documenting data

During the course of the study, we recorded observations, conversations, interviews, reflections, memories, and commentaries as the foundation for the analysis and interpretation that became the ethnographic text. These were recorded in fieldnotes (eighty-one), transcripts of interviews and audio recordings (forty-eight), and journal notes. A summary of these records can be seen in Table 10 below.

Detailed fieldnotes enabled the researcher's understanding of events and scenes witnessed and of encounters and conversations. Fieldnotes can never completely represent what is described, they function not only as a form of representation of the experience but also as "'aides-mémoire" that stimulate the recreation, the renewal of things past" (Bond, 1990 p.273). Our fieldnotes followed Spradley's (1980) schema of detailed descriptions of activities, settings, people present, their roles, their appearance, their affect and any other contextualising information such as events of the recent past or temporal exigencies. A single fieldnote typically contained accounts of multiple events. We tried to record these fieldnotes while at the desk in the Ark, partly as a way of fitting in by busily working on a laptop as others were doing, while nevertheless remaining open to surrounding events. Opportunities to observe intensely or to participate in conversations was always our higher priority though; writing out fieldnotes therefore tended to be an afterhours task at the desk in the Ark, where it was easy to recall the day's events and conversations. Remaining in the Ark after hours often also led to further notable conversations. provoked by the text. These headnotes (Ottenberg, 1990 p.146) were notes of impressions, commentaries, possible interpretations and constructs that could be spun from the

text or suggested links with constructs within the research study or in the external literature. Each document had 4-5 headnotes.

We transcribed audio recording of interviews into an electronic document with a similar structure to the fieldnotes (including a column for headnotes) and transferred manually recorded interview notes to the same type of document.

Journal notes contained running accounts of the process of the research as well as personal and subjective reflections on the day-to-day ethnographic process.

Table 10 Summary of ethnographic records

Type of ethnographic record	**Contents**	**Quantity**
Fieldnotes	Detailed descriptions of observations of activities, settings, people present, their roles, their appearance, their affect and any other contextualising information such as events of the recent past. Notes of conversations written after the event	81 av. 2.5 pages each
Interviews	Conversations that were planned in advance and were recorded either by audio or by note-taking	48 av. 4 pages each
Journal notes	Personal reflections and comments on any aspect of the ethnography	46 av. 1.5 pages each
Headnotes (i.e. a commentary in the margin of any of the above documents)	Reflections, impressions, commentaries, possible interpretations, constructs emerging from the text, or links with other constructs within the research study or in the external literature.	4 per page

4.6.6 Analysis and coding

By the third month, we began analysing data. Collecting and analysing data were iterative and dialectic (Hammersley and Atkinson, 1995). The beginnings of analysis were often expressed in headnotes. A novel interpretation or linked themes across a series of headnotes for example would prompt expansion into an analytical memo. Our analytical memos contained emerging themes and conceptual speculations, reflections and questions. In turn, these memos deepened our inquiry into the basis for those constructs in the field and refined our research focus, just as our growing understanding of context also refined it by shifting attention to the EUCS specifically.

Qualitative data analysis software (NVivo) helped us increase the effectiveness and efficiency of data management and the preliminary coding and analysis of data (Chambers, 2003). With it we maintained and analysed all our ethnographic records: primary and secondary sources, commentaries, metadata, conceptual maps and results of queries. We coded the unstructured data by tagging relevant sections of text mainly according to emerging constructs but also to constructs from services literature and the relational theory of contract. In an iterative process, we organised these "nodes" in hierarchies which were then easily re-arranged as ideas evolved. At the same time, we developed analytical memos linked to nodes as well as to sources. The software was not just a coding tool however; it facilitated complex iterative data analysis and interrogation (Bazeley, 2007), allowing us to modify constructs as the account unfolded and analysis proceeded. Searching gave us multiple views of both the source and analytical data. A strength of using this tool was that we dynamically created and manipulated links among sources and metadata and tracked themes as they emerged. It also enabled us to code information as cases with attributes, record types of relationships among different elements across the hierarchy of nodes, categorise elements in sets and run queries which could themselves be tagged. Not all of the analysis was done using NVivo however. We also used tables and hand drawn charts to help us visualise and categorise participant narratives (meaning both

their reporting and our observations and comments). For example, we constructed a table which listed constructs synthesised from the following:

- The elements of our service system representation (Chapter 2)
- our discussion of the Macneil's definitions of the nature of contracts, contract elements and contract norms in Chapter 3 i.e. our selection of the three elements (overall relational type, measurement of exchange and other factors, participant views of transaction (interaction) or relation; and three norms: role integrity, preservation of the relationship and harmonisation of relational conflict)
- the constructs emerging from the analysis

We then allocated sections of each narrative to the constructs listed and finally consolidated the narratives according to these constructs. Appendix B shows an example of this.

4.6.7 Entering the field

Negotiations for the project took place in various sites. Initially, we met at the university campus and various SERVit offices: settings familiar from associations between the university and its industry partners and from the researcher's background as a practitioner. At the first meeting with FINserv, however we were on foreign territory. As we waited in the vaulted glass atrium of the Ark for our SERVit and FINserv co-hosts at noon, streams of casually dressed young people entered and left the secure area by offering an index finger and ID card to turnstiles with scanners. The Ark, it turned out, housed regional customer service and call centre functions, hence the demographic profile. The casual atmosphere however belied the tightness of the security, with fingerprint ID entry and exit for lifts, stairs, and rooms controlling our route as we made our way to and from the meeting.

After reaching agreement to go ahead with the project, we were inducted to FINserv at its global headquarters overseas. This location more resembled an administrative centre: quieter, no bustling crowd and surprisingly no finger scans. Our meeting with the Vice President for Governance and planning was notable for the richly nuanced

detail of his account of the dynamics of the ongoing negotiation over SLA metrics and penalties. Given his experience of working for FINserv, then SERVit and now FINserv again, this was not surprising. Weighing the numbers against the relationship and balancing individual protectiveness with nurturing a partnership to maximise benefits, he said was key but had the complexity of a chess game (a view later echoed by the regional SERVit project executive). Primed with this high-level view, we flew back to the regional office to witness SLAs enacted.

Finally, the day the project officially began we entered the west wing of level one of the Ark through three security controlled areas with our security ID and fingerprints duly scanned. To become an incumbent of a place in the west wing was a long sought honour indeed. Light filtered through trees into the glass walled room buzzing with the exchanges of forty-odd SERVit staff dedicated to the FINserv account working in cubicles, "hanging over the partition", crossing the room to speak to each other and talking on phones. Our cubicle was set among the delivery project executives, relationship managers, service delivery manager, and Desktop Support, with a clear view of the rest of the room. Other staff in the room included two project delivery project executives, a program manager, seven project managers, the service delivery manager, three relationship managers, four business and finance managers, and two solution architects, three server support specialists and the desktop team leader and support staff. Some cubicles were set aside for drop-in staff such as SERVit technical support, contract advisors and support staff from other vendors. FINserv Ark switchboard operators also worked in the wing along with Ark security. Drop-ins and other visitors used spare cubicles for hours, days, or weeks at a time, making our presence to some degree unremarkable. The project executive, our major informant, was very welcoming. This was reflected in the positive attitude of members of his team too, and though, as we later found out, one key informant who had previously worked for FINserv was initially resistant to have a researcher embedded in the team, even he became an enthusiastic and important contributor to the study. Settling into our well-placed cubicle, we were ready to start assembling the vignettes of the daily work practices these, and other, participants which we present in Chapter 6.

4.7 Conclusion

In this chapter, we argued that using ethnography's methods of long-term observation of everyday practices in their natural setting and interaction with participants to draw on multiple points of view to study an example of a CITi-B2B service suited our aim of exploring the under-represented properties of an enacted SLA. We supported our argument by situating our study within the tradition of ethnographic studies of technology-related work which had yielded significant re-framings of technology-related constructs. We then explained the principal features of ethnography and described our particular ethnographic approach and the nature of the ethnographic text it would produce. Following a description of the setting of our study our reasons for choosing to study the EUCS, we presented the details of our methodology and finished with a description of our entry to the site.

In the following chapter, we summarise the contractual arrangements between SERVit and FINserv and the mechanisms by which compliance is measured as a prelude to illustrating the enactment of the EUCS SLA subsequently in Chapter 6.

CHAPTER 5: On the record – the EUCS canon

5.1 Introduction

In the previous chapter we argued that an ethnographic approach to studying a CITi-B2B service suited our goal of exploring properties of the contract and SLA as enacted, which, according to Macneil (1980), tend to be under-represented in practice. We described the design of our study in the tradition of ethnographic studies of technology-related work, the challenges of negotiating access to the site, the organisations involved, the setting of our study, the complexity of the CITi-B2B services in place, our reasons for studying the EUCS, our data collection methods and our entry to the site.

In this chapter, we describe the canonical view of the EUCS. By this we mean the formal representation of the service in the legal documents pertaining to it, which are the contract's master agreement and the EUCS SLA. It is these we refer to as "the record". For reasons of commercial confidence and the non-disclosure conditions of our study, we were not privy to the detailed contents of contractual documents. Hence we base the information in this chapter predominantly on firsthand accounts

of elements relevant to our study (expressed in very general terms) in discussion with senior executives in both organisations.

We first summarise the contractual arrangements between the two organisations and describe the structure of the master contract and its schedules, which included the SLAs. We then explain how the some clauses of the contract were designed to over-ride specific SLA conditions by requiring SERVit to perform functions implicit in the contract and to always act in FINserv's best interests. This meant that SLAs would need to adapt to emergent conditions in ways not represented in them. An explanation of the governance and performance review processes by which compliance was measured is then followed by a brief description of the services. Finally, we relate the terms of the EUCS SLA to our service system representation. In the next chapter, we present examples of enactment.

5.2 The contract

The multi-year contract, jointly formulated by the global headquarters of FINserv and SERVit during the sales and contracting processes, consisted of a global (covering twenty seven countries) master agreement whose terms remained relatively static over time (with some country specific terms based on local conditions), and schedules. While the contract was for a fixed term with options to renew, its schedules specified conditions likely to change over the period of the contract such as payment terms and details of services and the level at which they would be provided (SLAs). These conditions could change as a result of periodic (e.g., six monthly) consultative reviews or in order to adapt to emergent conditions such as opportunities provided by new technologies or changes in the external environment. Full details of the contract were known only to each organisation's legal counsel; others had access to relevant sections of the contract on a need to know basis.

The master agreement defined the value proposition in terms of:

- mutual obligations,
- overall terms and conditions,

- relationship roles and responsibilities,
- governance roles and procedures for reviews and meetings,
- reporting requirements,
- payment and other expectations.

It covered the following services which SERVit was to provide for FINserv:

- Server Hosting
- Service Integration
- Projects
- Help Desk
- End-user Computing

These services are described in more detail in Section 5.6 below.

SLAs for these services included:

- description of the service including specifications of what was in and out of scope,
- specifications of service level to be met, with respect to, for example, its hours of operation, percentage of time available during operating hours, hours of support availability, processing capacity, processing speed, time to respond to a problem, and time to resolve a problem.
- key performance indicators and metrics,
- definitions of terms such as “resolve”, “restore”, “abandon” and “critical/non-critical”,
- reporting requirements,
- charges, penalties and incentives.

The SLA for the EUCS is described in more detail in Section 5.6.5 below.

5.3 Over-riding conditions of the master agreement

As is common in contracts for CITi-B2B services, this contract contained clauses which could over-ride specific conditions in an SLA. For example a clause informally known as “manage the whole”, required SERVit to do whatever needed to be done to act in FINserv’s best interests and support “business as usual” (BAU), regardless of specific conditions of an SLA. It was based on the assumption that both FINserv and SERVit operated from a shared understanding of FINserv’s business. Other clauses, informally known as the “sweep clauses”, also not uncommon in complex service provision, required SERVit to provide any function that the FINserv had previously provided from its internal IT function before outsourcing, regardless of whether it was stated as in-scope or not. These clauses were, by their very nature, relatively under-specified.

5.4 The contract lifecycle

Over the lifetime of the contract, both parties expected to generate greater value by becoming increasingly efficient, incorporating improvements, and innovating.

The first goal was to achieve efficiencies in business as usual (BAU) for FINserv (referred to in conversation as “keeping the lights on”). Subsequently the goal was to grow FINserv’s business through further efficiencies such as process improvements and technology refreshes, for example. Finally, innovation was to be key to growing FINserv’s business, ideally as a prelude to FINserv renewing its contract with SERVit.

Within the overall contract lifecycle, different services had different contract renewal periods and towards the end of this study, the contract for the EUCS became due for renewal. It transpired that SERVit lost the contract to another provider.

5.5 Governance: reporting and performance evaluation

The goal of FINserv's Governance function was to manage FINserv's technology investments and minimise risk by managing the relationship between FINserv and SERVit and to ensure that service performance complied with the terms of the master agreement and SLAs. FINserv Tech Governance was centralised at FINserv global headquarters, based on data fed from the regions. The arrangements were as follows:

- At fortnightly regional meetings, FINserv Tech governance and SERVit executives would review performance data from both organisations against SLAs metrics.
- At the end of the month, information was then to be passed monthly to headquarters of both organisations for interpretation and assessment against contract and for negotiation over the significance of the data in terms of contract compliance. Non-compliance attracted penalties according to the terms of the contract and SLA.
- Annual reviews at the corporate level provided a further check of performance and expectations.

FINserv's evaluation of SERVit's performance also included customer satisfaction surveys, for example after incident resolution, and assessments by FINserv vice presidents of SERVit's leadership performance. The results of these would trigger meetings between SERVit and FINserv's with a view to understanding and clarifying expectations.

In addition to vetting SERVit's performance against contract, FINserv Governance group was charged with manage expectations of its own business units in terms of the contract. This was seen as an important way to reconcile executive decisions and their operational outcomes, especially in times of fiscal constraint.

5.6 The services

5.6.1 Server Hosting

Globally distributed mid-range, mainframe, and web servers under SERVit's control would support FINserv applications globally.

5.6.2 Service Integration

As we described in the previous chapter, the context of SERVit's contractual obligations was a web of interdependent services sourced from multiple technology service providers. The role of Service Integration in this was to provide processes that ensured the end-to-end availability of services across these providers. SERVit had responsibility for coordination, but did not have control over any of the other providers.

The processes included:

- *Availability management*: to ensure the availability of all services and end-to-end coordination during outages regardless of the domain of origin or the root cause of the outage.
- *Incident and problem management:* to provide end-to-end management of all technology-related incidents, investigate them to determine the root cause and coordinate restoration of services and remediation.
- *Change management*: to allow FINserv Tech's requests for changes to the any of the services to be handled through project management processes.

5.6.3 Projects

During the contract's lifetime too, FINserv would request and fund specificprojects to make changes to the services as the organisation developed and grew, or in response the new IT-driven opportunities. Through formal change management processes managed jointly both SERVit and FINserv at their global headquarters, a

request for service (RFS) would be raised by FINserv for SERVit to perform any work that was not stated as BAU in the contract SERVit would respond with a quotation. If approved by FINserv, a project would then be created to carry out the changes. These projects would be managed by business analysts from FINserv Tech with project managers and technical staff from SERVit, and then released into the live environment to become part of BAU.

5.6.4 Help Desk

The Help Desk would provide 24 X 7 support for the services in five languages at a rate of approximately 14,000 calls per month in the region by:

- logging incidents, characterising them and ranking them
- diagnosing issues
- monitoring and reporting progress, managing escalations, and closing incidents on resolution
- providing first level technical support or routing incidents to an appropriate support area

Help Desk metrics were based on speed to answer, first call resolution and abandon rate.

5.6.5 End-user computing

FINserv workers in this region alone used 15,000 end-user devices to access all applications needed to maintain BAU. Configurations of these devices and related software were referred to as the EUC environment.

The goal of the EUCS was to maintain the EUC environment at the specified level by:

- installing, moving or modifying its components
- restoring it to contracted levels in the event of a component failure

In order to:

- give end-users access to applications appropriate to their roles (e.g., login access, office management tools, call centre functions, finance, marketing)
- enable end-users to communicate intra- and inter-organisationally through email, instant messaging and through access to personal and shared knowledge repositories (e.g., the status of events, records of problems).

The components of the EUC environment consisted of end-user devices, servers and software including:

- desktop computers
- laptop computers
- mobile devices
- printers
- office management/productivity tools
- email
- notes management
- instant messaging
- local area networks
- active directory services
- security and personal authorisation,
- email, directory, print and file servers
- relevant skills and knowledge

Human resources allocated to the service included:

- service delivery manager
- desktop remote support technicians
- desktop team leader (externally contracted)
- Desktop Support staff (externally contracted).

5.7 Describing the EUCS as a service system

The following describes the EUCS in terms of our service system representation.

5.7.1 Entity to be transformed

The entity to be transformed by the EUCS was the EUC environment. For example, the EUC environment for a FINserv participant would be transformed to agreed levels by being installed and commissioned appropriately; or, if any component of the environment failed, it would be transformed so that the EUCS environment was restored to the agreed level.

5.7.2 Relational interactions and interventions

Explicit procedures prescribed the appropriate relational interactions to trigger interventions on the entity as well as the forms of those interventions. Written procedures, for example, detailed how an end-user would contact the Help Desk in the event of the functionality of the EUC environment failing to meet the agreed level, (depending on the circumstances, this would be either directly or through a team leader; by phone or by email). Written procedures also directed how the Help Desk would manage the incident and set in train the prescribed interventions to restore agreed levels of functionality. The core interventions of the EUCS related to installing, moving, changing and fixing components in the EUC environment

5.7.2.1 Install, move and change

FINserv staff would request SERVit to install a new end-user device in their EUC environment via FINserv's procurement system and move or change it through SERVit's infrastructure management software. The relational interactions to take place between FINserv and SERVit staff members to achieve this were scripted and standardised, partly through written procedures and partly through automated request/response procedures embodied in the procurement and infrastructure management software. Human interventions (e.g., delivery of hardware) and

automated interventions (e.g., creating images, customising devices) which would result from those interactions were similarly scripted and standardised. Automated tracking would alert SERVit to progress against contracted outcomes and timeframes stated in the SLA.

5.7.2.2 Break/fix

Failures in the EUC environment (i.e. it ceased to be as agreed in the SLA) would be reported to the Help Desk, generally by FINserv team leaders in a department who would validate the incident. These incidents would then be logged, categorised and either resolved at the Help Desk level or routed appropriately into the Help Desk queue for remote or on-site resolution (or to problem management if the failure was not within the EUCS).

5.7.3 The transformed entity

The interventions on the entity to be transformed (the EUC environment) would be deemed successful when it was transformed, through the relations and interventions described in these processes, to the agreed level.

Figure 8 below, summarises this view.

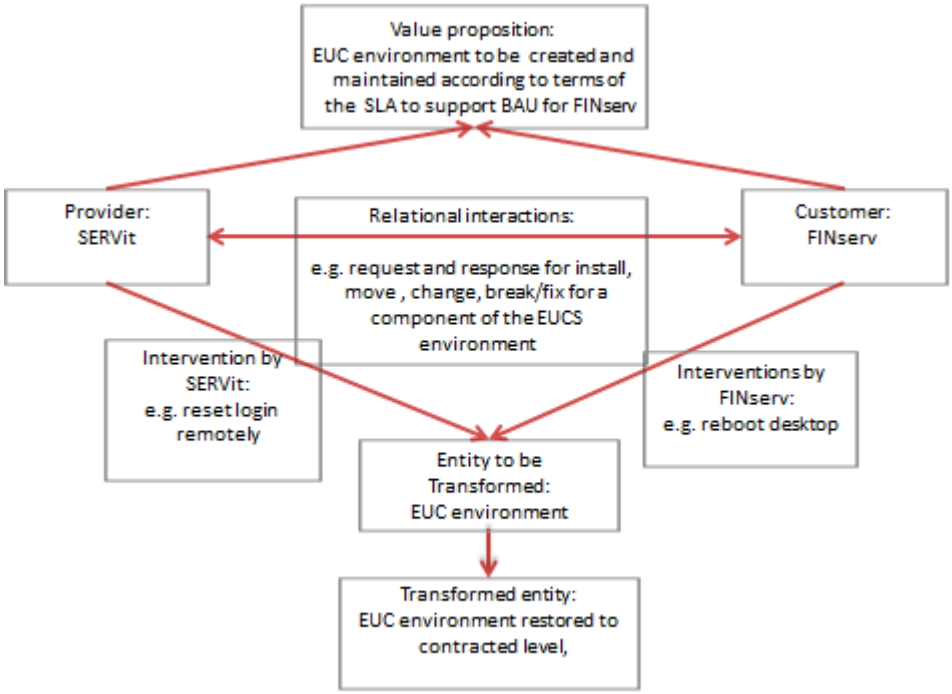

Figure 8 Canonical view of the EUCS

5.7.4 Procedures for monitoring the processes

SERVit's service level manager would analyse regional EUCS reports, which would show performance against targets, for errors such as misquoted tickets or failure to stop the clock. These reports would then be used as the basis for meetings with the EUCS team members for root cause analysis and process improvement.

5.8 Conclusion

In this chapter, we described the canonical view of the EUCS from the point of view of the contract, the EUCS SLA, and EUCS procedures. We assembled this from the accounts of senior executives from both organisations who had access to relevant parts of the contract. In the following chapter, we shall describe how we observed the EUCS being carried out in practice, from which we will later draw conclusions about the nature and significance of under-represented practice.

CHAPTER 6: Business as usual – tracing the enactment of the EUCS SLA

A compass course is a hypothesis. It has length but no width. It can't be seen or felt … it cannot even be steered…The real track of the boat through the sea is a weaving zigzag path whose innumerable deviations define the idealized pencil line of the course as it appears on the chart.

Jonathan Raban, *Passage to Juneau: A sea and its meaning, p.96*

6.1 Introduction

In the previous chapter, we described the EUCS SLA as principally specifying what the service did and did not provide (scope), reporting requirements, key performance indicators, charges penalties and incentives, and defining key terms such as "critical". This SLA was designed to ensure that the components of the EUC environment (desktop computers, laptops, printers, mobile devices, local area networks and servers for email, directory, print and file services; as well as applications for access, authorisation, office management/productivity, email, notes

management, messaging and filesharing) remained in the state agreed by FINserv and SERVit as sufficient to achieve BAU.

As we discussed in Chapter 3, an initial aspect of rule systems such as contracts and SLAs, is that they inevitably have ambiguities, gaps and conflicts that cannot be specified but are managed in the course of enactment (Moore, 1978 p. 3). Barney and Ouchi (1986 p.117) contend that the gap, which increases with complexity and uncertainty, is managed through behaviour that adapts the terms of the contract to prevailing conditions. The practices that constitute this in CITi-B2B service, however, are not well understood. In this chapter, we attempt to improve our understanding of practices of enactment of the EUCS SLA, by tracing them through the domains in FINserv and SERVit that use and support the service.

The sources of our narrative in this chapter are the fieldnotes, recordings and documents collected during the ethnographic encounter in response to day-to-day events, as we described in Chapter 4. To represent this information cohesively, we have structured the narrative as follows. Beginning inside the customer-facing Call Centre of FINserv's Cardmember Services, we describe how its representatives experience the EUCS. We then explore how FINserv Tech (the intermediary between FINserv's business lines and its technology service providers) and FINserv Governance (which monitors SLA compliance) influence that experience. We conclude by illustrating how SERVit's Help Desk and its account team FINserv''s main location, the Ark support the service Figure 9 below sets the context for our narrative. The darkest shapes represent where we tracked the EUCS; the numbers represent the sequence in which they are addressed in our narrative.

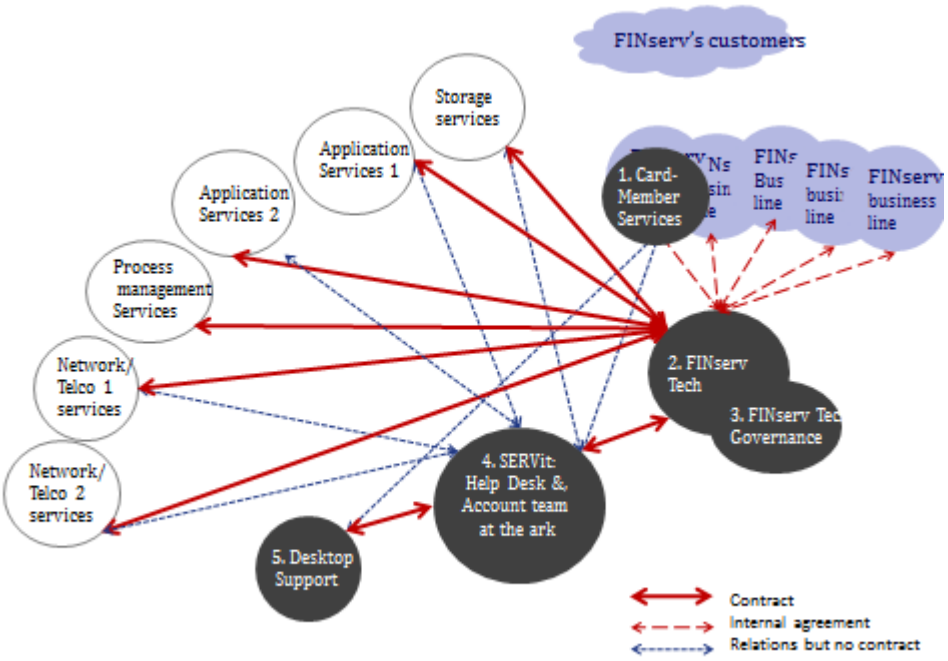

Figure 9 Tracing the enactment of the EUCS

6.2 The customer: FINserv

In this section, we explore some instances of the use of the EUCS within FINserv as well as how FINserv Tech, which provides technology services to FINserv, manages the EUCS.

6.2.1 At the frontline: FINSERV Cardmember Call Centre

FINserv's Cardmember Service is its largest business line, and its customer-facing Call Centre, just one level up from us in the Ark, is easy for us to access and observe. Call Centre representatives depend on the EUCS working as intended, as it provides the gateway to the primary tool of their work effectiveness, the call centre application. Their perspective on the service is important to our exploration as it gives us one view of how it serves FINserv's business outcomes.

On Level 3 of the ARK, we meet Francis, the FINserv Vice President responsible for the Call Centre, and she takes us there. Representatives in cubicles are talking with

customers on the phone: solving problems, explaining terms, and inviting Cardmembers to upgrade to new services. These representatives, she explains, are the face of FINserv. They combine contextual awareness, flexibility, empathy, and an end-to end view of the service to humanise relations with the cardholder. The quality of their relational interactions with the customer is important, she says, because although generating new business is an important goal for them:

> *Retaining and increasing business with an existing customer is more cost effective than replacing them with a new customer. Retaining a cardholder is measured by the savings that generates for the business, so first call resolution of a query or problem is important, for example, because it increases satisfaction by fifty percent and satisfaction, in turn, drives retention.*

The value of successful relational interactions between the customer and service provider is reflected in the business-related metrics used to measure representatives' performance. As Francis describes it:

> *Each representative receives feedback from customer satisfaction surveys weekly, including verbatim reports of customers' comments. Since each cardholder can vote with their feet in an instant, the desired business outcomes of retention, growth of existing business and development of new business are reflected in the metrics we use to assess representatives' performance. We then use these measures to drive behaviour and to reward, develop and retain good staff.*

Given the Call Centre's dependence on the EUCS to be effective, we ask Francis about her experience of it. She responds that the service as designed and described in the SLA is inadequate for maintaining BAU and does not align with the Call Centre's own business metrics:

> *It shows a lack of engagement with its customer base about our needs, amply demonstrated by ongoing problems with screen design, and feedback mechanisms. That the EUCS is working by design is meaningless if that design doesn't relate to the business productivity metrics of the Call Centre. But we can't vote with our feet like our customers.*

Comments from Call Centre representatives reflected a more personalised perception:

> *Although the staff are knowledgeable and helpful, they should have more understanding of our business and more empathy with the impact of EUCS inadequacies on our work ... The Help Desk is the face of technology and an important touchpoint for us with SERVit and it is not always helpful enough ... Continuity of access is key for us but a ten day lead time [as specified in the SLA] is impossible for provisioning IDs ... Escalation works but not always and is not efficient.*

To understand how the Call Centre adapts to this we ask what typically happens in this situation. The SLA resolution time for EUCS problems is ten days, which bears little relationship to the business metrics by which Call Centre productivity is measured. According to Francis, when a problem such as a failure of a desktop cannot be resolved quickly enough to continue BAU, they enlist the help of Sarah, FINserv Tech's relationship manager for the EUCS, Sarah, has developed good relations over time with the SERVit Desktop Support staff on the floor below, so she visits them informally and persuades them to raise the priority of the problem in the queue of EUCS jobs waiting for resources to be allocated (which we described in Chapter 5). In terms of our service system representation, we would say that participants from the customer and provider, through their relational interactions, negotiate and then decide to deviate from the ten-day time-to-restore specified in the SLA. They then reconfigure resources (the time and skill of the Desktop Support staff) in order to make an intervention on the failed desktop, to meet the perceived need for maintaining BAU.

Francis explains that she depends on this informal mechanism of adapting the terms of the SLA to meet the targets in her business-related metrics. Later in this chapter, when we describe SERVit's morning tea, we shall see how this is recognised.

6.2.2 Behind the scenes: FINserv Tech

Next, we visit FINserv Tech for another perspective on EUCS enactment. FINserv Tech functions primarily as an intermediary between FINserv's business lines and

the complex web of its external technology service providers. It is also nominally the integrator of these technology services but although some integration tasks are devolved to SERVit, integration responsibilities are not clearly specified. Kim, the Regional Vice President for Network Infrastructure and Site Services, manages two groups of relationship managers. One group faces the external technology service providers, while the other group faces FINserv's business lines. Agreements with the technology service providers have tight formal terms and conditions, she says, but there are no formal agreements with their business line clients: "personal relations are key to that". Interestingly, Kim had previously been a SERVit account manager on this account, and like others we shall meet who have worked for both organisations (whom we will call "hybrids"), has a synergetic perspective that encompasses both the provider and the customer. Relational skills figure prominently for her, she says:

> *Although we're a tech team, we do have to be able to negotiate and smooth the waters. We need to know whether to escalate an issue or resolve it using those softer skills. So we choose people for their relational skill and we try to be the glue between the contract and what the users are trying to do.*

Steve, a FINserv relationship manager for FINserv's technology service providers illustrates this role of relations in creating value with an anecdote about another service provider.

> *There was a brilliant, cantankerous techie in one of the service providers whose temper I managed. He would phone up the CEOs of telcos and tell them they were a bunch of idiots, wasting his time. You can't do that. I managed to get the guy into a happy place so he behaved better, it was like the odd couple: I'd tell him "Colin, here's what we need to do and these are the behaviours we need to adopt. I'll pick up the signals, let me manage it". That way we got excellent results.*

Relations are critical to success in this business, he continues, and at the senior level, relational capability is recognised:

Building and nurturing relations is actually one of the competencies measured in FINserv leadership. But this is not reflected further down the organisation. For example, one of our technology service providers is launching a new service next week and on the weekend, I asked them how confident they were about it. Even though there are metrics for their preparedness, there is no measure of my true level of comfort with their preparedness, which is based on my interactions with them over time.

Mary, a business analyst and contact person in FINserv Tech for the EUCS, also describes how she negotiates the gap between business needs and the terms of the SLA through relations. A senior executive's Blackberry failed just as he was to join a crisis response team remotely on a Friday afternoon. Following formal procedure, he logged the incident with the Help Desk. The response time for a break/fix for a Blackberry was ten business days; however, this would prevent him from functioning on the crisis response team, so he contacted Mary. Like Sarah, when the terms of the SLA could not produce the outcomes that she judged were business critical, Mary went downstairs to the SERVit Desktop Support staff and enlisted their help, successfully.

If you work on any project with SERVit, your name gets known and you get calls about the EUCS 'how do you do this?' Making it work is about going to people, sending emails. If you stick to work of contract, nothing will get done. Working with SERVit in this way is good ... I feel a sense of partnership with them. They are always responsive. We become one team where we all get fulfilment from positive feedback.

Although we observe that these relational skills negotiate the gap between the EUCS as designed and the business outcomes it is meant to support, this relational work and the value it generates do not appear in the record: in SLAs for example, as Mary goes on to explain::

It's a pity that the SLA metrics are so clearly defined and are just a number, because then how do you recognise and measure kindness and helpfulness, and the impact of that on the bottom line? The SLA doesn't acknowledge the value inherent in those relations even though they represent about fifty percent of what we do.

The nature of SLA metrics and penalties not only exacerbates the invisibility of this work in that record, according to Kim, they are often ineffective.

> *The SLA tends to measure activities rather than business outcomes. Worse, when those activities don't measure up to the SLA, the financial penalties imposed by the SLA do nothing to improve the business experience.*

The dilemma facing Kim then becomes:

> *How do we validate the business's view of the importance of problems or changes and align that with the terms of the contract?*

6.2.3 Governance: the contract, and the relationship

This dilemma shows up in the way the FINserv Governance group functions. As we saw in Chapter 5, their role was to manage FINserv's technology investments and minimise risk by managing the relationship between FINserv and SERVit and to ensure that service performance complied with the terms of the master agreement and SLAs. Francis's reports on breaks in the EUCS and her requests for change, for example, would be passed to FINserv Governance for evaluation. As we meet with representatives from FINserv Governance, perspectives on how it operates in practice, show it to be an intricate interplay between making sure that SLA targets are met and nurturing the relationship with FINserv.

Kim sees regional governance of the technology services contracts, for example, as excessively concerned with metrics:

> *At times, it is a constricting framework that means that we have to do this and they have to do that. One place I worked, we called governance the 'business prevention unit'. Anything you wanted to do they would stop. With perfect governance, there wouldn't be a hundred and seventy three service levels; there would be just ten primary business outcomes like 'are we getting the right outcomes' not 'did this take five minutes or six minutes to do'.*

However, Tim, the global head of FINserv Governance explains that since nurturing and preserving the ongoing relationship between FINserv and SERVit is fundamental to the success of the contract, ninety percent of his job is relational. Like Kim, he is a hybrid who has developed these relational skills working for both organisations: first FINserv, then SERVit and now FINserv again.

He tells us that while managing the relationship can sometimes take the form of simply imposing penalties for breaches of the SLA, mostly it is more complex and more relationally focused. At each level of performance review, both organisations expect to manage their interests through their interpretations of the terms of the SLAs and related performance data. Interpretations of performance data also vary between FINserv and SERVit as each uses different software tools to analyse and report data[9]. As well, the provider is privileged by its access to more finely grained data. Experiential and tacit knowledge on both sides in these negotiations, he says, is critical to the overall success of the contract. For example, negotiating agreement on the meaning of a specific clause in the SLA is not as simple as it may seem:

> *A break in the EUCS might have a time to resolution of 24 hours; FINserv assumes this means clock hours while SERVit assumes it means technician hours. Or, SERVit says the clock should stop if FINserv delays resolution by not responding to a request in a timely manner but FINserv says this is not what was meant in the SLA.*

The line between interpretation and abuse of the SLA terms can sometimes be difficult to negotiate without rancour, particularly given SERVit and FINserv have access to different performance analysis tools. To this end, he continues:

[9] For more details of the governance processes, see Chapter 5, section 5.5.

To avoid conflict and maintain good relations penalties for SLA breaches are sometimes waived and disputes are typically resolved without recourse to legal action and the spirit of the contract prevails.

As complex as it is for FINserv Governance to manage the relationship between FINserv and SERVit, it can also be difficult for Tim to regulate relations within FINserv. As we described in Chapter 5, FINserv has a contractual responsibility to manage the expectations of its own business units within the terms of the contract. For example, recently, senior FINserv executives decide to reduce the cost of the desktop service by increasing the time to resolution for a desktop install from five to ten days. As we saw from the narrative of the Cardmember call Centre, operational staff then experience this affecting their ability to maintain BAU and adapt accordingly. Tim's job then also is to help FINserv executives bridge that gap by guiding them to taking responsibility for the consequences of decisions such as this and managing the expectations of the operational staff. This is not, however, always successful according to him.

6.2.4 FINserv's web of relations

The centrality of relations in the work of FINserv Global Governance is echoed in the stories of the vice presidents, business analysts, and relationship managers throughout this section. Relational work generates adaptations to the SLA to maintain BAU. In the following section, as we continue to trace the enactment of the EUCS in SERVit, we shall see in more detail how these relational interactions and adaptations are part of informal mechanisms that are invisible in the authoritative record of the service, that is, the contract and the SLA.

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6.3 The provider: SERVit

Turning now to SERVit, we start by following enactment at the Help Desk and then proceed to follow the Desktop Support staff, problem managers, relationship managers and project executives, who make up SERVit's FINserv account team.

6.3.1 SERVit's Help Desk

As part of its SERVit's Integration Service, their Help Desk is the first port of call when things go wrong with any of the technology providers' services. Located in Treetops, a SERVit campus ringed by forest just outside the city, its idyllic setting gives no hint of the pressure of the response time metrics that dominate the Help Desk. Erik, who manages the Help Desk, tells us the response time metric for calls related to financial services is ninety percent within ten seconds and for other services, seventy percent within twenty seconds. As we described in Chapter 5, these calls come in six different languages from multiple regions, each bringing its own cultural style of interaction. The calls cover more than a dozen different domains of FINserv's business, each with its own business terms.

Pian, Tipa, Val, Jack, Rouzbeh, Lesley, and Philip are the consultants rostered on the Help Desk during our stay. In cubicles with easy access to each other, they take calls; diagnose and fix problems; refer, monitor or escalate incidents; update information in a number of different Help Desk applications and personal informal databases and have informal discussions, meetings, and training sessions. The consultants are all technology graduates and are fluent in at least three languages.

With a headset on, we listen in to the consultants working with FINserv staff. We start by listening to Jack with a customer he is finding difficult to help by phone. He decides to take control of her desktop remotely in order to diagnose the problem first hand. Generally, he does not do this because it takes longer, but mindful of the value of relationships, he says:

> *In some situations, relating to a customer in this way avoids subsequent call-backs and leads to positive collaborative experiences.*

Then Tipa takes a call from a customer whose login ID is being rejected. Following procedure, she logs the call (raises a ticket) in the Help Desk database and talks him through the problem. Much of the interaction is devoted to her drawing out information so that she can translate from the "funny way" in which he expresses it to a form she can use to resolve the problem herself. She resets the ID and closes the ticket. Had she not been able to resolve the incident, she would have passed it on to others such as application specialists, network specialist, or problem managers.

While closing this ticket however, she notices in the database that there have been other problems with login IDs this morning, making it a multi-user incident. She raises the severity level of the incident and passes it on to the problem managers, via another database. They acknowledge this in a chat session; she alerts other members of the Help Desk team using instant messaging and finally records details of it in her daily log. Later in the day after the problem is solved (it turns out to have been network related), she records details of it in a personal knowledge base she keeps of problems and their solutions from which she can learn more about the organisational and technical context, as she says, to improve her effectiveness.

Help Desk consultants record information, from a variety of sources, in eight different, and unintegrated, types of knowledge bases. Some are informal, others official; some shared, some personal. The informal include personal notes recording information gathered from experience with spreadsheets and indexes in which the information is summarised and ordered. The official include the incident management database (generated as part of SERVit's Integration Service as described in Chapter 5) and an organisational wiki. Much of the information is collected for purposes beyond the consultants' stated job responsibilities. Val, for example monitors the progress of incidents as a way of learning how to anticipate and prevent them; Pian inherited a digest of problems and solutions from her predecessor which she develops and shares with the other Help Desk consultants to help diagnose and resolve issues. Because the Help Desk serves multiple regions and languages, they also record and share their intercultural learning including, for example, guidelines on culturally appropriate questioning styles for different language groups. Pointing out the importance (yet lack of acknowledgement) of this Lesley comments:

People up high don't get it because even though they say that SERVit is multicultural, people at that level adapt to being in a global environment, not a multicultural environment. But we consultants have to adapt to a number of different local cultures as service providers and yet this is not among the skills tested for in hiring and training the Help Desk consultants.

As well as using the information for their own learning, the consultants use it to inform others:

Often we are able to send out information to help manage problems pre-emptively, for example to Francis, the Vice President for the Cardmember Call Centre. Because we are a multi-regional team, we know things that the others on the account don't know and we can alert them. Also, we use our accumulated information to help new team members in other areas.

They tell SERVit's problem managers, project managers or relationship managers of events of which they may not yet be aware; they encourage them to develop customers' skill in using applications to minimise incidents and they alert Help Desk consultants in other regions of impending problems. Far from being merely of current value or archived in a repository, this information is the basis of an informal reciprocal information-sharing network. These networks are important, says Jack:

It took me two years to establish my network, and it is not restricted to this region. It involved getting to know people personally, being referred and introduced by others and being able to reciprocate with those who helped me. Sometimes, for example, to avoid escalation, if I know the person in FINserv who raised the ticket, I will ping them to join an on-line chat to discuss it with me. Other times I will contact a SERVit team leader to escalate solving the problem within SERVit to avoid an SLA breach.

These informal networks figure prominently in our observations of and discussions with the consultants. They underpin the Help Desk's service provision in two ways. Firstly, they were networks for sharing knowledge amongst themselves that helped them do their jobs, and for this the extensive keeping of informal personal databases

was critical. Secondly, they were networks of relationships acknowledged by the participants as based on the expectation of reciprocal help in solving problems.

Lesley, a Help Desk team leader involved in recruiting and training, comments on the invisibility of this work in coded procedures, particularly in hiring criteria and customer satisfaction surveys:

The skills we need and depend on are not the skills we test for.

6.3.2 SERVit's account team at the Ark

The technical support staff, problem managers, relationship managers and project executives who make up SERVit's FINserv account team are embedded with FINserv in the Ark building downtown, sharing its Level 2 with FINserv Tech staff: (governance, business analysts and relationship managers) as well as consultants from the application and telecommunication services providers. SERVit staff are predominantly located in the west wing of the second floor. They comprise three groups: executives and relationship managers, development staff and operational staff. The following is a composite description of scenes from the enactment of the EUCS and other services.

Early morning in the west wing of the second floor sees the SERVit managers who need to reach their contacts in other time zones, busy at their desks, the morning stillness broken only by their quiet phone murmurs. As the opening of local business hours draws near, desks fill up, phones ring, calls are made, meetings convened.

Conversations across desks reach a level that rises and falls during the day, changing tone, pace, pitch and volume. A severe outage quickens the pace and lowers pitch and volume; laughter and lightness of tone, we learn, mean a successful lunchtime basketball game, or just the end of a satisfying and productive day.

In the southwest corner of the floor, the day's drop-ins (people whose specialisation is not needed on site every day) arrive: a PC software engineer, a contract consultant and others. Next are the people who work on development projects for modifications

or enhancements to services approved through change management process. Technical solutions managers, who design and cost projects to modify services, fill up the six cubicles along the western window. Next to them and working with them are SERVit's business manager, who manages the FINserv account, and other administrators who manage change requests and billing for the FINserv account. Project managers who carry out the projects resulting from approved changes occupy the next row of cubicles. As the day progresses, this half of the west wing remains relatively quiet and calm. Staff work at their screens or hold discussions around cubicles in low tones.

Next are the managers: Charles, the project executive (PE) for the account, Tom the deputy project executive (DPE) and the relationship managers. Charles is clear on the role of the contract in generating value:

> *There is no way in the world we can manage by the contract alone; it is managed by shared understanding of the service. Contracts are never perfect – or even close.*

Tom, like Kim and Tim, is a hybrid. After working for FINserv for twenty years, he transitioned to SERVit seven years ago when were awarded a contract to provide technology services to FINserv. He translates Charles's shared understanding as shared work:

> *We work with people from FINserv together. It doesn't matter whether they wear the SERVit or the FINserv badge, sometimes we forget we are one or the other.*

The relationship managers Peter, Jim, Carl and Tarik are, by role definition, closely aligned with FINserv business units. Each is responsible for a specific FINserv business unit rather than a particular service, since multiple services support a unit and a single service supports multiple units. Their job is to understand FINserv's business, keep FINserv informed of incidents, problems and changes and interpret FINserv's needs to SERVit. Relationship management is important not just to preserve the current relationship but also to maximise the possibility of contract renewal and new contracts being signed. For this, according to Jim:

We must not only understand the contract, the technology and the business unit but be guided by the business unit rather than individual SLAs, and operate under the umbrella of the "manage the whole" and "sweep" clauses of the contract which require SERVit to act in FINserv's best interest.

Next are the "hands and feet" server support staff. SERVit's Server hosting service is run from two different regions. The servers are physically located in this region, close to the Ark, but are managed remotely by server support staff in a distant region. Nevertheless, on occasion a physical intervention is required that cannot be controlled remotely and hence the term for the local server support staff.

Located next to them are the Desktop Support staff, who attend to any task related to the EUC environment that also requires a physical rather than remote intervention. We shall describe their activities in more detail in the next section.

Around the corner, the SERVit problem managers, Gavin, Rob, David and Ash, sit among staff from other technology services providers. All the problem managers are hybrids, in that they worked for FINserv before working for SERVit, and thus have considerable understanding of FINserv's business. The problem managers are part of SERVit's Service Integration Service. Their role is to provide end-to-end management of all technology related incidents and problems, regardless of which technology service provider might be involved. This includes analysing incidents to determine the underlying problems and ultimately identifying the root cause of problems. They are also required to coordinate the restitution and remediation of services.

Each morning, the problem managers meet with the Tom, the Deputy Project Executive (DPE) and relationship managers to look at a snapshot of the previous twenty-four hours' problems, their resolutions and their business impact. They escalate problems to the appropriate relationship manager for them to discuss with their contact in their FINserv business line, or, if a problem is more severe, to Tom who then works with FINserv executives. In the event of severe failures, the problems managers' role is to coordinate all the technology service providers to restore services within the time frame specified in the SLA. They have developed

multiple knowledge repositories to capture service failure and problem status data as well as information for the Help Desk consultants to help them learn how to carry out an initial diagnosis when an incident is logged at the Help Desk.

By midday, activity has heightened in this area of the west wing. Phones ring and people huddle around Tom's desk. A spike in calls to the Help Desk about failures in the EUCS indicates a problem deeper than just individual desktops. An outage is affecting most desktops in the region. Gavin, the senior problem manager, classifies the failure at the highest severity level and immediately calls a 'bridge'.

SERVit assembles and coordinates a bridge to resolve problems and restore BAU in the event of a high severity failure. A bridge is a conference call involving an *ad-hoc* team of technical specialists from FINserv's technology service providers (e.g., network, server and applications providers). Bridges cross the multiple domains of control of organisations, departments, and regions, bringing together the relevant expertise from these domains to restore services. Members of the team come from providers whose services may be a cause of the failure or whose services it may impact, and membership of the team varies depending on the nature of the problem, hence its *ad hoc* nature. High stakes for each of the participant's organisations drive collaboration. At stake for FINserv is loss of business if BAU is not restored within the time specified in the SLA and at stake for SERVit and other providers is the prospect of penalties that can run into millions of dollars.

In this case, Gavin calls representatives of the applications, network, server hosting, end-user computing and storage service providers to the bridge. Tension is high as the participants attempt to isolate the cause of the outage aware of the clock ticking towards the time allowed for resolution before penalties kick in.

Bridges are complex. Participation in a bridge is nominally restricted to technical specialists who have the skills necessary to solve the problem, with FINserv business representative coming onto a bridge only when needed to validate that the service is working again. There may be up to ten technical specialists from five or six different providers in multiple regions on the bridge. Gavin reports that the technical specialists are widely recognised for knowing what to do in this situation, doing it

well and being able to separate the problem from personal or organisational concerns. For him the issue is clear:

> *For service restoration, I make no distinction among the support teams being paged to a bridge in terms of who they work for ... we are in war room; we are at war with a problem which impacts [FINserv's] business.*

Shrikant, a specialist from another of FINserv's technology service providers confirms this:

> *If the right people are present, then it becomes independent of individual differences.*

However, he continues:

> *Every interaction on the bridge has a dollar value; they need to have listening skills and business knowledge. If their relational skills are not good, as sometimes is the case, this impacts the metrics even though that impact is not identified and measured directly. These skills are not recognised and developed as they should be.*

Steve confirms this:

> *Experts are not always team players so how do you get them to contribute to the problem not own it?*

Other complexities arise in bridges. Steve, one of FINserv's technology relationship managers describes how:

> *Sometimes participants in the bridge represent providers who are in commercial competition with each other, such as SERVit and FixIT, or FixIT and TELco.*

Some also see the inclusion of non-technical staff as an impediment to fastest time to recovery. Jim, a SERVit relationship manager, described one such bridge where:

We had problems with batch transactions. The time to resolution in the SLA was four hours and it wasn't working. We ran a bridge, but it took longer. We had third party vendors and FINserv on the bridge as well. The problem managers started the bridge, but the business asked to join. Why did they need to join a technical bridge? Because they were not happy with the way it was progressing. I agreed to it, but there were a lot of angry people on the call. I had to soothe the customer because someone said what they shouldn't have. I had to step out and deal with that person. He had been asking technical questions and only prolonging the process, so he was told that he wasn't helping and should get out of the way. I calmed him down, he apologised I said he didn't need to apologise – all was OK. I'd rather my customer were happy, if they want to join a technical bridge that's ok or they can have a business bridge. It's about trust. It's high stress because it's all about very large sums of money.

Rod, also a FINserv Tech relationship manager, speaks of another aspect of the complexity of the multivendor web of FINserv providers that surfaces in bridges and elsewhere.

It's a complex network because different groups are making their own SLA targets along that whole chain of services the targets may not align with each other. So at different intersections of services there are different SLA targets. Those long chains of interdependent services can also make it hard to get back to the root cause of a problem.

We continue to observe the process of the current bridge, while respecting the commercial confidentiality of its substance. Jim, the EUCS relationship manager, is hanging over the partition of Tom's desk, listening to updates on the progress of the bridge and relating these to his FINserv business unit contact. All goes smoothly and the problem is resolved well within the targets of the SLA targets. When Jim' contact in FINserv confirms that they have BAU, the news brings relief to those gathered around Tom's cubicle. Only this confirmation from the customer constitutes official resolution of the crisis and stops the clock ticking towards a penalty. The problem managers now proceed to root cause analysis.

The afternoon wears on; the soundscape is quieter and calmer. Along the eastern wall of the west wing are the desktop team: Andrew, Matt, Nitan, Suman, and Greg, who

take care of those incidents in the EUCS that require personal intervention at a desktop in the Ark or Mary St. building, and Anthony, the team leader for Desktop Support. All but Anthony, are 'resources' meaning that they are contracted by SERVit from an external organisation. They are quietly talking FINserv customers through their various problems and requests in rhythms of evenly paced patience, politeness and repetition, sprinkled with phrases such as "I understand", "it's OK". Andrew checks the queue of tickets that Nitan has allocated to him from incident reports recorded by the Help Desk and calls his next customer to arrange a visit. Matt is unpacking and assembling ten new desktops for installation.

Nitan, known for his skills in building relations with customers and for the clarity of his explanations, carefully talks a customer through the processes of raising a service request for a problem with a frozen login. He concludes by reminding the customer that the processes, developed at FINserv's global headquarters, are on the FINserv intranet and points out the benefits to them of raising a ticket rather than looking for the quick fix of calling or dropping in on the desktop team.

Despite Nitan's advice, some are clearly welcome to drop in and Suman greets Mary, a FINserv Tech business analyst who has come by for help. Although there is a procedure for users to contact the Help Desk to report incidents or request help with the EUCS, FINserv staff will often try to engage someone directly from the desktop team; Suman resolves her problem arising from a recent desktop installation project with the cheerful good humour for which he is renowned, (Anthony reports that although there is generally little socialising between FINserv and SERVit, Suman gets invited out to drinks). It is quicker and more effective, Suman later explained, to work directly with Mary than to refer the issue to the Help Desk.

As evening approaches, business progressively closes across the region, activity slows and numbers in the west wing start to wear thin. Early starters have gone and the administrators are using the relative quiet to tie up loose ends and have reflective conversations. Chocolate biscuits comfort the late-stayers

6.3.3 EUCS Desktop Support

We now come to look in more detail into how the how the EUCS is enacted by the Desktop Support team.

6.3.3.1 Morning tea

Once a month, the Project Executive, Charles, hosts a morning tea for SERVit staff in the west wing of the Ark. People move around the tables sampling treats in amiable conversation before awards are given. This month, the award (movie tickets) goes to Greg from the desktop team for outstanding service to a member of FINserv staff. Greg works in FINserv's Mary St. building about a mile away, but has come to the Ark for the morning tea. Conversations continue as the event winds up and, being curious about the award, we ask Greg and his team member Nitan about the story behind the award.

Greg tells us about Julie, a FINserv staff member who transferred to the Ark from another region while continuing her role. Expecting to be able to work immediately, she asked for her laptop to be connected to the local network. According to the SLA however, this fell into the category of an EUC install, for which the resolution time is ten days. That made no sense to Greg in Julie's circumstances since she was unable to work without being connected. As the task would be neither lengthy nor difficult, he raised the priority of the request in the Help Desk queue and the connection was done that day. He goes on to explain to us that it made no sense to him to treat this as a laptop installation for a new staff member. She was a FINserv staff member needing ongoing access to the EUCS, regardless of location, so that she could continue her work. It was a question, he tells us, of balancing the terms of the SLA firstly with serving FINserv's business interests and secondly with building relationships that serve both FINserv and SERVit's interests.

> *SLAs are guidance, black and white but it is about how you react when things come to you. You don't really look at the SLAs all the time ... We just try to provide top service. I've been asked by team members why I have jumped the SLA. I say it is just my personal style. If I can do something I will do it, I won't really consider the SLA.*

and if I can't do it I try to negotiate. I go back to the client and explain, negotiate. Most of the time I get a positive reply such as 'it's not urgent at this stage but just bear in mind if you can fit it in'. It's the SLA plus negotiation that keeps them happy.

Last month Nitan received the award. FINserv's relationship manager for the EUCS, Sarah, whom we met earlier in this chapter, negotiating adaptations to the terms of the EUCS SLA to fix a failed desktop in FINserv's Cardmember Call Centre, nominated him for his helpfulness in resolving desktop issues when SLA sanctioned response times were not adequate to meet their business metrics.

Nitan's description of the motivation for his and Greg's behaviour in adapting the terms of the SLA reflects Macneil's norm of preservation of the relationship that governs relational behaviour (Ivens and Blois, 2004)

It's not like there are two organisations; it's like we are all in the same organisation.

6.3.3.2 Nitan

Greg's story and Nitan's comment make us eager to learn more about how this works in practice. We follow up first with Nitan who describes the dual nature of the Desktop Support team's work and the intensity of his relational interactions with his FINserv customers.

Every person on the desktop team does two things – maintains the relationship with the business customer and provides technical support. Nearly half our calls are relational calls – building and managing the relationship. The remainder are technical calls.

Nitan describes how understanding the customer's context and adapting to emergent conditions are essential to both maintaining relationships and providing technical support:

We need to constantly make judgements in changing circumstances with different people; therefore, we have to understand the customer's business – FINserv's

processes and policies, and the contract too. This understanding enables relationships to flourish and that helps us solve problems.

Greg concurs with this view:

To do this, we need to understand policies, procedures, client priorities etc. You have to find out which way things are going day to day and keep yourself updated all the time.

Nitan tells how this point of view helps him, for example, to identify the root cause of some customers' errors as a lack of training and proceeds to "enable the users through explanation".

We explain what services have been contracted as they often don't know what service levels to expect and we teach them how to best access them, for example by using the online ticket system rather than phoning a support team member. We help the customer develop knowledge and understanding of the tools available and develop workarounds to the terms of the SLA.

The value of this "one-time investment in supporting the customer's understanding" for Nitan is manifold:

It not only helps build the relationship, which leads to brand loyalty but also one hundred percent of the customers develop understanding that makes them independent of customised support. This then adds value to both FINserv and SERVit through more efficient use of their staff's time.

In this case, we could say that Nitan is making interventions to transform (improve) the state of the customer's capability to achieve increased productivity. He does this by reconfiguring resources (his time and expertise) to identify and carry out a value generating task which is not referenced in his role description, or the SLA or descriptions of ITSM processes, by inserting a task into the Help Desk queue ahead of other tasks.

6.3.3.3 Greg

When we catch up with Greg later, he too describes how he invests in developing the customer's skill and efficiency by departing from "the book" (as he calls the SLA) to help them learn to access EUCS support more efficiently:

> *I raise tickets so they learn the process. It's not simply doing the ticket it's building the relationship ... There can be different approaches, e.g., you can go by the book but it doesn't build good relationships.*

Balancing the relationship with the rules, Greg says, enables him to achieve an outcome that aligns with FINserv's perception of business needs; and it means that, like Nitan, he interprets the SLA and adapts his interventions to prevailing conditions based on his understanding of the customer's business context This does not always mean queue jumping and sometimes the answer is no.

> *Fifty percent of our work is relating to people and doing workarounds. But I like interacting with people even though it can be stressful and demanding but I get satisfaction. I like to see people progressing and getting a solution; keep clients informed. It's good that I understand the technology and can see relations among tickets in terms of business impact.*

Greg continues to reflect on the difference between "the book" and what actually happens. Not only does the SLA differ from what happens in practice, he says, at times it is an inaccurate and misleading account of what should happen. It does not, for example, reflect the nuances of actual installations where categories of tasks in the SLA do not match categories of tasks on the ground:

> *I've found in most SLAs we categorise different tasks in a common way. SLAs are created at FINserv and SERVit global headquarters from templates by higher level managers who are not aware of what happens on the ground. And decisions are made globally that often don't relate to actual conditions or take into account the complexity of global infrastructure. This means that the SLAs are generic, equipment focused and therefore often do not match the need. For example it could take a day to*

install a [software] developer's laptop compared to two hours for a vice presidents, but they have the same priority and same timeframe in the SLA. A printer jam and printer install are treated as the same thing and installing a wireless card is treated the same as installing a desktop or laptop. The view at global headquarters is that the deviations in actual times will balance on the books. But they don't balance in terms of maintaining the relationship and achieving BAU.

Interpreting the SLA in changing conditions and re-configuring resources is not something only he and Nitan do. For example, Greg says, he may be "shoulder tapped". Shoulder tapping is a directive from someone higher up in the SERVit account team to bypass formal procedures in order to escalate scheduled work or execute non-scheduled work. Usually, it results from a negotiation between the project executive, deputy project executive or relationship manager and his or her formal contact person from FINserv. It may relate to preserving or building the provider-customer relationship, or serving the best interest of the client. When Greg is shoulder tapped, he then renegotiates the timing of existing jobs in the Help Desk queue with his team as well as with the other FINserv customers waiting for those jobs.

A relationship manager, Tarik, gave me an escalation to do with a wireless card: a simple task to install it and critical for a high-level exec who was about to travel on FINserv business ... I sent a message to Desktop Support asking them to do it even though I know they are stressed, rather than routing it through the Help Desk initially. It's not that kind of relationship where I can say 'why are you coming to me'? My attitude is I'll listen and make my own judgement. If it's business critical, I'll start working on it and then raise the ticket. I don't say I can't do this because you don't have a ticket.

For Greg, however, this does not mean that the rules can always be re-negotiated; part of the learning process for the FINserv customers, he insists, can be through the application of the rules:

Some people are too pushy then I make them realise they must follow the process. For example, a director wanted four laptops installed by that night but we didn't have

enough resources. I explained to them the other commitments and explained the SLA to them and said they should have raised ticket. We must this do this to prioritise their work. In such high volume, we must have an SLA. It's good for us and good for them.

The reciprocal value inherent in building relationships and generating trust is clear for Greg:

My relationships have a benefit; I can get them onside during problems. For example, some support people don't update their clients, but this is important. If you don't reach out to a high profile client and tell them you are working [on the problem] and this is the progress and timeframe, you run the risk of losing trust. When informed, even in a severe incident, people are less reactive otherwise things escalate and get out of proportion.

You can use the SLA as a wall between the client and the support ... but that doesn't build good relations or you can meet the SLAs in a number of different ways such as using the tool [the SLA] but augmenting it with the relationship. We do tend to focus on high profile clients and expect their satisfaction in return.

How to measure that value, however, is less clear to him.

It's hard to measure what's involved in meeting an SLA. There are so many variables, the human factor in particular.

Acknowledging Greg's relationship skills and their importance to SERVit, Greg was promoted to a relationship manager position. This happened toward the end of our time at FINserv

6.3.3.4 Anthony

Later, we catch up with Anthony, the desktop team leader, who shares his time between the Ark and Mary St. Like Greg, Anthony reflects on the mismatch between the role of the SLA in securing a sale and the need to produce value for the customer by adapting to circumstances on a day-to-day basis:

Contract writers don't understand the environment. The problem is the contract writers are the salesmen and they're just trying to sell the products. They promise all the bells and whistles but when the time comes, they can't supply it.

Because of this, he maintains, the value for FINserv, "the cream on the cake", is not in the SLA but in the shifting of priorities in the queue and the extra work that the desktop team does to keep everybody happy.

We ask him to tell us about this. He starts by explaining shoulder-tapping workarounds:

I actually provide a service to our [SERVit] account managers. I am there to assist them provide a service to the client. And that's why if they get shoulder tapped, I get shoulder tapped. I agree with some of them but some of them I don't but it's my job to do it anyway. Sometimes they come from Tom sometimes from Charles. They are mostly from Aditi because she is in charge of any desk-side issues. Sometimes they even go straight to my guys without going through me or the Help Desk.

Like Nitan and Greg, Anthony too makes his own judgements about how to interpret the SLA. For example, he also sees see the business value in helping customers develop skills that increase their productivity and satisfaction:

I will often help someone if it is only five minutes, but not always. Somebody once came to me for help and I said no. But since then it's been a good relationship because she's grateful that the links I sent to educate her made her life simpler.

There have also been so many times when I've had to search the FINserv intranet to find their own processes for them. The things that FINserv employees should do themselves are designed by FINserv at the global headquarters, not by people on the floor. So that is a service that we provide as well. We shouldn't have to do it, it's not in the SLA, but we do it anyway to keep the customer happy.

Building relationships is important for Anthony as a means of enhancing his personal effectiveness:

My main goal is to keep everybody happy. What I do and its effectiveness depends on how to build and manage relationships with people.

He offers the example of the effectiveness of reciprocity in his relationship with a FINserv technician who supports a number of foreign exchange sites in the region:

We get together and have coffee and share information. He actually gets to find out about things on the FINserv side he wouldn't have known. Also, tickets have come to me about things that I shouldn't get so I call him up and asked him if this is something he should handle. Or, I send an email and ask him to take care of it and he does the same with me.

However, keeping the customer happy also involves other kinds of work beyond the SLA.

You might think about SLAs that we have to just do what's in there, but then we get hit with the non-standard things. A lot of my work is cleaning up other people's mess. Clean up the mess so that the client is happy. For example if an application is not running, the job in the Help Desk queue should go to the application area [i.e. one of the other technology providers] but it comes to the desktop. Another non-standard service we do is auditing assets. Also, at times of escalation I take responsibility and ownership and become a negotiator: negotiating and calming the situation and trying to please all parties.

The cost-cutting environment of the time also puts pressure on Anthony and his team to fill the gaps in the SLA:

The financial crisis has meant lots of cost cutting which means more work, which means more stress which means procedures not being followed up. Because you're being measured on metrics each account has a budget and some managers get a bonus for going under budget. That really doesn't help the guys in the back like us who have to deal with the client and deal with lack of staff and too many tickets etc.

Yet none of these ways in which Anthony creates value through the "cream on the cake" is formally recognised, a situation on which Sally later reflects.

6.3.4 Sally's epilogue: the icing on the cake

Some months later, SERVit loses the EUCS contract to its competitor, FixIT. Sally, the SERVit project manager managing the transition of the service to FixIT, is spending six weeks in the west wing and is sitting in our row, near the desktop team. Her proximity to the team affords her some awareness of their behaviour and she generously comments on it in the context of her role.

FINserv get value from the EUCS in practice that goes beyond the contract, says Sally:

> *For example, I was listening to Suman say "I understand" and "'it's OK" and was thinking: if someone fixed my desktop but was not nice then if I were rating the service I wouldn't give them an excellent. It's not just doing it in a timeframe that's acceptable but it's putting the icing on it. It's not one person, but it's cumulative and makes a difference to perception of service but not to the ultimate choices at the time of contract selection. The bottom line is if the dollars don't stack up the client will go elsewhere.*

> *I don't know how you'd quantify the value of the icing on the cake. It would come out on a customer satisfaction survey but I don't know that it would have flow on effects. They don't know how valuable it is until they do a survey or something like that, they probably take it for granted on a day to day basis.*

The absence of this formal recognition of the value of the "icing on the cake", which we also observed, has an interesting twist to it in the transition of the EUCS to FixIT. Part of Sally's work is to identify what information SERVit should hand over to FixIT. Information about the service abounds, she says. Confirming our earlier observations, she acknowledges that both Desktop Support and Help Desk staff accumulate written and unwritten personal and collective bodies of knowledge in a way that makes sense to them. She says that Nitan, for example:

Nitan knows everybody at this site, one hundred and twenty people, and while information is transmitted formally through the queues etc., what tends to happen is you see him in the corridor and he says "oh, I've got your job, it's in the queue, I'll come and see you tomorrow. Are you around tomorrow?" That whole informal process that comes into play that adds to their perception of the service and how satisfied the customer is. So much is bound up in personal knowledge, e.g., how to deal with particular people and the relationships generated through that. Someone in FINserv in Korea said they hoped Suman would work for FixIT so he would still help them.

But we don't transition that. Either it goes with the person or is lost. The official position is that Desktop Support is a generic process: this is how we do it and this is what's transferred. As a new group coming in, FixIT would theoretically see personally developed processes and information as variations and try to get rid of them as it adds to the cost of the process. For example, half a person's job may become a full person's job because they liked it; it made them feel good.

So, we asked, how did the knowledge transfer go?

They took on two of the EUCS contract staff, Nitan and Suman. You can't compare a knowledge transfer session to hiring years of local experience and good networks of relationships, despite their theory of the generic nature of the processes.

6.4 Practice rules: jumping the SLA

Sally's critique reflected what we had observed, namely, that the unwritten and unspoken terms of enactment often over-rode the terms of the SLA, or, in Greg's words "jumped" the SLA. These practices of enactment, based on a broad acceptance of the need to adapt the terms of the SLA to changing circumstances, included relating, sharing personal knowledge negotiating adaptive interventions and reconfiguring resources. Characteristically, these practices were not formally acknowledged, measured or developed.

Figure 10, below, schematically summarises and represents the practices of enactment as they relate to the elements of our service system representation.

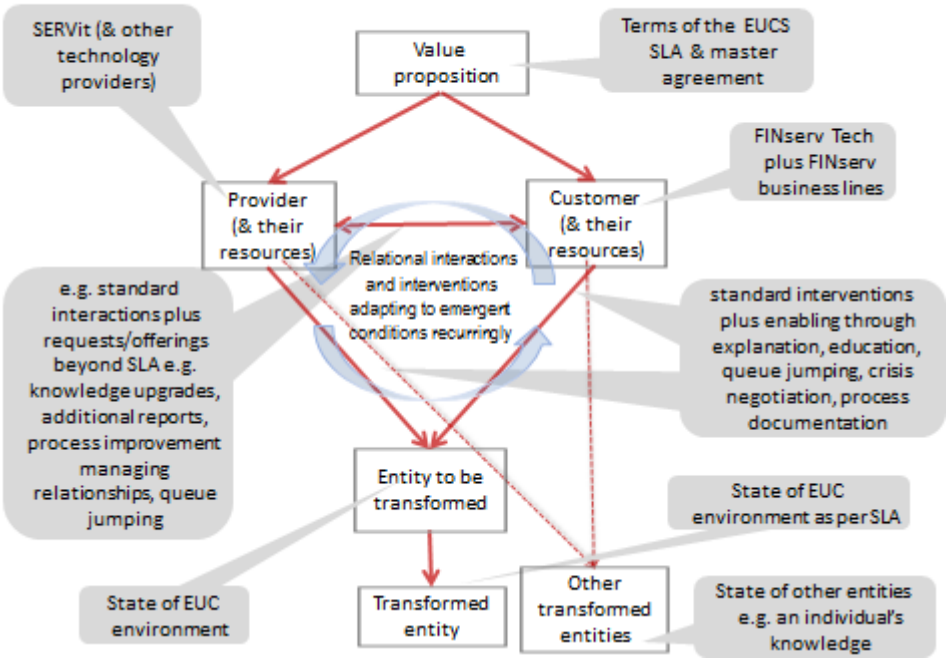

Figure 10 Enactment of the EUCS SLA as a service system

6.5 Conclusion

In the narrative of this chapter, we presented some of the practices of enactment of the EUCS SLA by tracing them through domains in FINserv and SERVit that use and support the service. We commented on some recurring patterns of practice which we will examine in more detail in the next chapter. Finally, we mapped the practices we described to the elements of our service system representation.

In the following chapter, we reframe our understanding the practices of enactment by identifying characteristics of a cycle of enactment which manages the gap between the terms of the SLA and what is actually done to achieve BAU; we argue that this is enabled by informal mechanisms of learning, negotiating, and adapting, which we will call relational capability.

CHAPTER 7: Understanding the cycle of enactment and relational capability

Performance itself is a kind of adjustment from original planning. Even meticulous performance of the most explicit planning transforms figments of the imagination, however precise, into a new and therefore different reality.

(Macneil, 2001b, p. 224)

Cycle: A series of events that are regularly repeated in the same order.
(Oxford Dictionaries Online, 2014)

7.1 Introduction

In the previous chapter, we narrated the enactment of the EUCS from its use in FINserv's Cardmember Call Centre through various domains in FINserv and SERVit that influenced how it was enacted. We saw that, like Jonathon Raban's compass course (Raban, 2000, p.96), the SLA is a hypothesis that if certain actions are taken, (pointing the boat in the right direction/ carrying out the activities measured in the SLA) then the goal, (reaching Alaska/ achieving BAU) will be met. However, the real track of the boat and the real trail of enactment are less direct. They both deviate

by adapting to prevailing conditions and this resilience makes it possible for them (mostly) to reach their goal.

In this chapter, based on our analysis of the data we collected[10] and the patterns of practice that emerged from that, we reframe our understanding of SLA enactment in two ways. First, in Section 7.2, we describe four recurring characteristics of a "cycle of enactment" that explains how participants managed the gap between the terms of the SLA and achieving BAU. In Section 7.3, we elaborate on the extent to which this is unacknowledged and unmeasured. We proceed to make a case, in Section 7.4, for the inseparability of relations in the cycle of enactment and in Section 7.5, we argue that three informal mechanisms: learning, negotiating and adapting were embedded in the relations and fundamental to the effectiveness of the cycle of enactment. For these mechanisms collectively, we introduce the concept of "relational capability" in Section 7.6. Finally, in Section 7.7, we argue that under-representation of this cycle of enactment and relation capability in the record constrains their discovery, representation, refinement, and innovation, thus missing opportunities for increasing the value generated in enactment.

7.2 Four characteristics of the cycle of enactment

Analysis of our data revealed patterns of interactions and interventions, in response to emergent conditions that we refer to as a cycle of enactment. The cycle was characterised by:

- emergent conditions triggering relational interactions among participants
- the pervasive, personal, and critical nature of these relational interactions
- the significant role of sharing personal, informal knowledge

[10] A more detailed description of our data collection methods and techniques of analysis can be found in Chapter 4, section 4.6.

- The above frequently culminated in decisions to adapt the terms of the SLA and reconfigure resources in order to realise perceived business value.

This cycle, we argue, provided a way for participants to manage the gap between EUCS as enacted and the EUCS as represented in the SLA, while serving the over-riding requirement that the implicit intent of the contract and FINserv's best interests be recognised and served.

To help reframe our understanding of enactment, we elaborate each of the characteristics in turn.

7.2.1 Emergent conditions that triggered relational interactions

The conditions that precipitated relational interactions that led to adaptations for the most part fall into three broad categories:

- the need to manage the SLA/BAU gap,
- the desire to invest in relationships for future effectiveness
- the demands of the complexity of the multi-vendor web.

We describe each of these below, with examples drawn from our narrative in the previous chapter.

7.2.1.1 Managing the gap between the terms of the SLA and achieving BAU

The need to manage the gap arising from changing conditions as a trigger for relational interactions was a dominant theme in our data. It was exemplified starkly in the contrast between Call Centre metrics and EUCS SLA metrics we described in Section 6.2.1 (At the frontline: FINSERV Cardmember Call Centre). There we saw that when conditions precluded achieving a desired business outcome by sticking to the SLA, (in this case a ten day lead time to fix a desktop) participants from both organisations assumed it was appropriate to deviate from the SLA and negotiated adapting their interventions accordingly. It might be argued that these adaptations were covered by the overarching clauses in the master agreement (Section 5.3 above), that could be invoked to make decisions guided by the relevant FINserv

business line rather than the SLA in order to achieve BAU. What emerges from the data is more complex however. While participants clearly understood the nature and intent of those clauses there was little guidance about how to operationalise them. As we illustrated in our narrative, participants often operated based on their perceptions of what was important. This included departing from the SLA and "icing the cake" (Sally, Section 6.3.4), acting as "one organisation" (Nitan, Section 6.3.3.1) and "jump[ing] the SLA as a personal style" or even going to the extreme of deciding that "the SLA rules made no sense" in a particular context (Greg, Section **Error! Reference source not found.**).

7.2.1.2 Relational interactions as investments

The idea of relations as investments also figures strongly in our data as a trigger for relational interactions. Macneil (1980, pp. 66-67) identifies "preservation of the relation" as one of the dominant norms that strongly influence adaptive behaviour in highly relational exchanges. What we observed and illustrated in our narrative, however, were relationships being developed and sustained not so much in pursuit of an overarching ideal of relationship preservation but in pursuit of effectiveness. As Mary summed up it up, "if you stick to the word of the contract, nothing will get done". At times, for Greg for example, "going by the book" was a barrier to being effective. For Tim, investing in relations underpinned contract success. Jack, Pian and Anthony invested in building a network of reciprocal support and information sharing to improve their efficiency in problem solving and to pre-empt problems; Greg augmented the SLA with relationship building to generate a level of trust that would reduce the time taken to resolve problems time by getting FINserv staff onside when problems arose. Greg also saw the business value of leveraging relations in improving FINserv's bottom line thus supporting brand loyalty and increasing the chance of contract renewal for SERVit.

7.2.1.3 Using relational interactions to manage complexity

Multi-vendor bridges also generated intense relational interactions. As we illustrated in the previous chapter, bridges were complex because high-stakes decisions needed to be made quickly and accurately by an *ad hoc* team under conditions characterised by uncertainty. Moreover, the specialists constituting that team represented multiple

vendors who had no choice but to collaborate to resolve the problem at hand, under threat of penalties, even though they might be in commercial competition (SERVit and FixIT for example). Adding to the complexity of the bridges was the somewhat unresolved issue, at the time of our study, of where responsibility and authority lay for coordinating the integration of the multivendor web of providers. As we explained in Chapter 5, SERVit had the contractual responsibility for coordinating the overall availability of end-to-end services (which included assembling and running bridges), but no direct authority to control what other vendors did. Under these conditions, detailed formal procedures could not be invoked. Both Shrikant (a consultant from one of the other technology service providers) and Jim (a SERVit relationship manager) reported in our narrative in the previous chapter that coordinating problem solving on a bridge was highly dependent on *ad hoc* relational interactions among the parties to the bridge as they negotiated solutions. Because of this, Shrikant reported, at times the level of relational skills of the participants impacted the ability of vendors to meet the SLA targets mandated in performance metrics.

7.2.2 The nature of the relational interactions

> *Social transactions usually take place in the service of objectives to which legal rules are merely ancillary shapers, enablers, or impediments. Conformity to the rules is seldom in itself the central objective. (Moore, 1978, p. 4)*

In our narrative, we illustrated how relations played an important part in generating adaptive interventions to achieve BAU. Relational interactions were characteristically:

- pervasive and persistent,
- personal and informal,
- perceived as critical to achieving BAU.

In the next three sections, we elaborate on each of those characteristics of the relational interactions from our data.

7.2.2.1 Pervasive and persistent

The extent of reliance on relations is indicated in estimates participants made of the percentage of their total work that they perceived was relational. The estimates were mostly spontaneously offered in conversation; hence, the term could have different meanings among the participants. Nevertheless, the estimates are interesting, particularly as relational work does find a mention in many role descriptions. They ranged from fifty percent (Kim, Nitan, Greg, Mary) to ninety percent (Tim). These relations were not just dyadic, they also manifested in networks based on referrals and introductions (Jack). Some relational interactions were part of relationships that persisted over time, (Sarah and Nitan, Mary and Suman, for example). Others were *ad hoc.* Relational interactions were a routinely accepted part of enactment to the extent that for Nitan, for example, providing "relational services" as Nitan called them constituted half of his work, the other half being providing technical services.

7.2.2.2 Personal and informal

Relations were also typically personal and informal; predominantly verbal, often face-to-face (for example, FINserv staff encountering Nitan in the corridor, Mary visiting Suman) and were based on mutuality and reciprocity (Anthony, Pian).

7.2.2.3 Critical to achieving BAU

Relations were critical to the problem resolution work of the bridge where the complexity and uncertainty in conditions we described in Section 7.2.1.3, precluded the possibility of precisely defined procedures. Even where procedures were well defined, as they were in FINserv Tech, dependence on relational skills to achieve BAU was high. As Kim's hiring strategy highlighted "we need people with relational skills because they have to be able to judge when to resolve an issue using the contract and when to use their skills to negotiate". We saw an example of how this worked in the illustration from the previous chapter of Francis's dependence on Sarah's relationship with Nitan to negotiate the escalation of fixing a failed desktop in order to meet her Call Centre targets.

7.2.3 The role of personal informal knowledge

Gathering and sharing informal knowledge, seen at its most prolific amongst members of the Help Desk:

- contextualised decision making,
- strengthened relationship networks
- enabled SERVit to contribute to FINserv's processes.

7.2.3.1 Contextualising decision making

In changing conditions, as Greg said, "it's about knowing how to react when things come to you". For Help Desk and Desktop Support staff, being able to exercise judgement and adapt effectively in constantly changing circumstance depended not only on their knowledge of the contract but on their developing a deep understanding of FINserv's business, policies, processes and personal styles of interacting. Help Desk staff, as we illustrated in the previous chapter, also needed to acquire a deep understanding of cross-cultural styles of interaction reflecting the six different languages in which they worked with customers across the region.

7.2.3.2 Nurturing the web of relations

As Sally reported in her epilogue to Chapter 6 (Section 6.3.4), a certain amount of value was bound up in personal knowledge about unrecorded ways of working and the relationships generated through that, as in the example of Nitan. Gathering, documenting and sharing informal knowledge was fundamental to investing in relations as we described in Section 7.2.1.2, and to generating effective networks for anticipating and resolving problems.

7.2.3.3 Improving customers' processes

"Enabling the user through explanation" was another form of informal knowledge sharing we observed as a way in which the Help Desk and Desktop Services team members contributed to successful outcomes in relationally intensive ways (Section 6.3.1). Repeatedly, in observing and listening to Help Desk consultants logging incidents and providing first level support work for the EUC, we listened to SERVit

team members talk FINserv users through their documentation and explain their processes. The Help Desk consultants also created guidelines to help them further.

7.2.4 Negotiating and adapting: jumping the SLA

Nominally, the SLA determined the nature, timing, and extent of interventions on the entity to be transformed. However, as an abstract set of rules, an SLA cannot encompass all the contingencies of enactment. Neither can the process management frameworks for IT governance and management that we discussed in Chapter 2. Our illustrations in Chapter 6 depict cases of participants routinely negotiating decisions and adapting the nature, timing, or extent of an intervention based on their understanding of what was needed to achieve BAU in a particular circumstance. Francis, Sarah, and Nitan for example, through their relational interactions, negotiated a decision to escalate fixing a desktop failure to restore the availability of the EUC environment for a Call Centre representative. When Greg was shoulder tapped by his relationship manager, he negotiated with him, and with others whose work was already allocated a priority in the Help Desk queue, to adapt by escalating the transformation of the state of availability of the executive's mobile device. Not all decisions to adapt were negotiated with others and nor were all the transformed entities officially classed as components in the EUC environment. Nitan inserted out-of-scope interventions into the Help Desk queue, by training customers or documenting customer processes, for example, where the entity to be transformed was the state of a participant's knowledge.

Figure 11 below represents the cycle of enactment graphically.

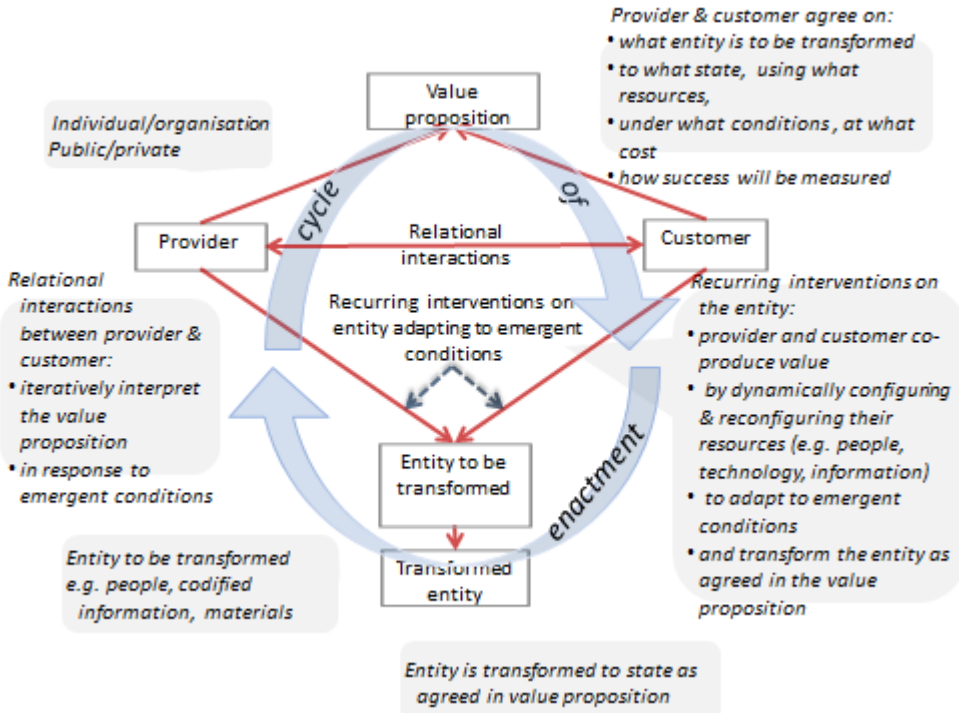

Figure 11 The cycle of enactment

7.3 Acknowledgment and measurement in the cycle of enactment

Absence of acknowledgement or measurement of adaptive work was a common theme in this narrative. This is not surprising given Macneil's contention that as contract elements move toward the highly relational end of the spectrum, the expectation of recognition is low and emergent conditions are anticipated as a normal part of relations, to be dealt with by cooperation and other restorational techniques that are difficult to measure (Macneil, 2001b, pp. 200-201). As mentioned in Chapter 6, estimates of the extent of this work ranged from fifty to seventy-five percent. This work was also unrecognised in role descriptions, training programs and performance evaluations. There was no reference in these, for example, of skills staff needed to have, such as a deep understanding of FINserv's business needed in Desktop Services, to the need for multicultural capability in the Help Desk or to developing relational skills to mitigate the risk in achieving problem resolution in the bridge (Section 6.3.2). Typically, participants saw the problem of recognition and measurement of this work as intractable. Mary, for example wondered how it would be possible to measure the impact of kindness and helpfulness on business value.

Formal acknowledgement and measurement of this work was largely absent. The systematic and recurrent nature of it documented in our narrative indicates that it is sanctioned and expected. The informal acknowledgement of it in the morning tea awards we described in Section 6.3.3.1 demonstrates this. The very fact that FixIT effected the knowledge transfer from SERVit by hiring Nitan and Suman, as we described in Section 6.3.4 , is tacit acknowledgement of the value of these otherwise unrecognised aspects of work.

7.4 Inseparability of relations in the cycle of enactment

> *What is essential to any sound theoretical approach to contracts of any kind is a 'Grundnorm' recognising the embeddedness of all exchange in relations*
>
> (Macneil, 2001b, p.293)

Our discussion of the nature of relational interactions in section 7.2.2 highlights the complex network of relations among the desktop staff, relationship managers, business analysts, and vice presidents that spans both organisations is intrinsic to the work of enacting the EUCS SLA. The centrality of relations for Tim, the head of FINserv's Global Governance, and their critical role in managing the complexity of mission critical bridges further underscore the significance of the role of relations in achieving desired outcomes.

This embeddedness of relations in the work of enactment stands in sharp contrast to the relational/contractual dichotomy presented in outsourcing and related literature concerned with the governance of contracts. As we discussed in Chapter 2, the relationship between these two notionally separate forms of governance is typically characterised as one of substitutes or complements. Some constructs similar to those we found in our work appear in this literature, such as the need for a supplier to understand the client's business and recognition of processes of information exchange and social exchange (e.g. Kern and Wilcocks, 2000, Kern and Willcocks, 2002). These are limited, however, to the formally acknowledged roles of inter-organisational contact, e.g., account managers and relationship managers based on surveys and interviews of managers. In contrast, by following relational interactions

at the operational level and using our service system representation as a guide to unpacking the practices of enactment, we have highlighted the inseparability of relations from the mechanisms of learning, negotiating decisions and adapting that drive the cycle of enactment. We conceptualise these mechanisms collectively, as "relational capability".

7.5 Enabling mechanisms of the cycle: learning, negotiating and adapting

In Section 7.2 above, we described the characteristics of the cycle of enactment as emergent conditions triggering relational interactions among participants (including negotiating and informal knowledge sharing), often culminating in decisions to adapt the terms of the SLA and reconfigure resources in order to realise perceived business value. Three informal mechanisms in particular are fundamental to the effectiveness of that cycle in achieving BAU. They are:

- learning to understand the service context,
- negotiating decisions,
- adapting to emergent conditions.

First, experiential learning and the sharing of that learning amongst participants, (as illustrated in our observations from the Help Desk, for example) enabled decisions to be made based on the accumulated experience of many participants. This helped bring rich resources to bear on participants' relational interactions and in turn, relational interactions were a source of learning. Second, being able to negotiate with other participants to make decisions (Francis, Sarah, and Nitan, for example, for the Call Centre failure) meant that collaborative decision making reduced the risk of inappropriate adaptations being made. Finally the ability to execute the adaptations and take into account any consequences from that, for example when Suman responded to FINserv staff, such as Mary, who drop in rather than use formal channels.

These enabling mechanisms are neither trivial nor *ad hoc*, as we have shown. The related activities, although silent in the record, are anticipated, well understood,

routinely recurring, systematic, and sanctioned. They depend on a complex set of skills and knowledge; self-directed experiential learning, and effective decision-making; the relations are embedded in all of these.

An important step in understanding this is to challenge the widely held view that we can treat relations and enactment of an SLA as somewhat separate endeavours.

7.6 Enabling mechanisms as relational capability

> *A material transaction is usually a momentary episode in a continuous social relationship [which] exerts governance.*
>
> (Macneil, 1980, p.14)

The term "capability" has been variously characterised in organisational literature in diverse ways: complex social patterns of coordination between people and between people and other resources (Grant, 1991); a set of business processes strategically understood (Stalk et al., 1992): the ability to produce value amenable to improvement (Curtis et al., 2009); potential which is realised in action to deliver business value (Michell, 2011), among others. For Teece and Pisano (1994) the term capabilities encompasses adapting, integrating, and negotiating the re-configuring of resources in a changing environment, which by their nature cannot easily be sourced externally. In this inimitability lies their potential as a source of business value (Pfeffer, 1995), as we saw in FixIT acquiring the capability specific to its new customer, FINserv, by hiring Nitan and Suman. Relational capability is socially created, strategic, adaptive, amenable to refinement and capable of generating business value.

A common theme in the discussion of capability in organisations is the important contribution of learning to building capability, and the socially situated nature of that learning (Brown and Duguid, 2001). Levitt and March (1988) describe organisational learning as encompassing learning from direct experience, interpreting experience and recording, conserving and retrieving experience. The knowledge generated by such activity resides in new patterns of activity (routines) that represent successful solutions to particular problems (Teece and Pisano, 1994). These routines adapt to experience incrementally in response to feedback about outcomes (Levitt and March, 1988) . Brown and Duguid (2001) argue that because learning is situated in practice, which is primarily adaptive, it creates knowledge

continuously, which in turn can be exploited for improvement or explored for innovation (March, 1991). Since these descriptions of the processes of organisational learning closely match those we observed, for example, in the Help Desk, we can suggest that such a capability is being developed in the cycle of enactment that we described. Joint contributions to the understanding of complex problems, (as we saw in bridge related work, are also a rich source of organisational learning and capability development (Teece and Pisano, 1994).

Learning, negotiating and adapting are components of capability development. Common to them all, in our narrative, was a relational dimension which enabled their functioning. We draw from this the concept of relational capability whose components are relationally embedded learning, negotiation and adapting. Our work shows that this capability is important to achieving BAU. It is a capability that drives enactment of the SLA and operationalises the so-called "best interest", "manage the whole" and "sweep" clauses of the contract in their requirement that the provider to be adaptable to changing conditions in ways that are not codified. The norms that underlie these over-riding clauses serve as guides while relational capability makes them work. Relational capability is one of the sources of the resilience needed to manage the uncertainty of a complex environment and is central to enactment (Figure 12). It is however largely unavailable for systematic improvement or exploitation because it is silent in the record.

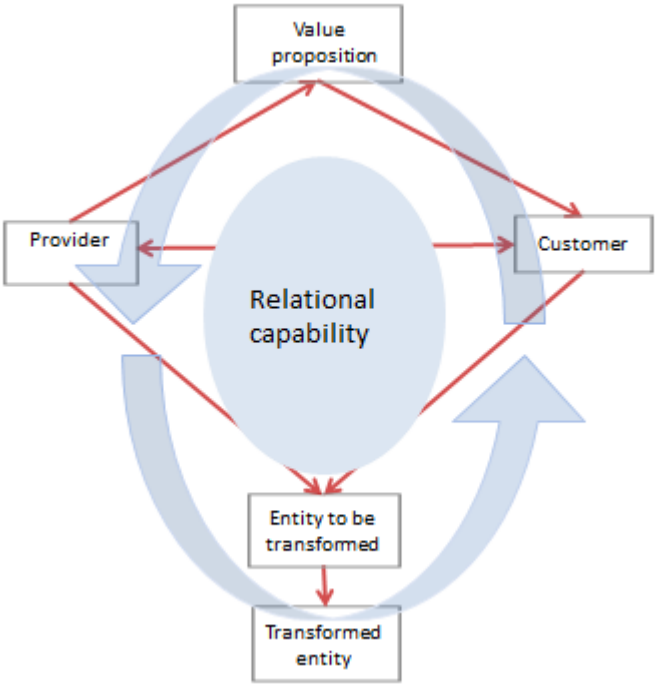

Figure 12 Centrality of relational capability

7.7 Silent in the record: under-representation of relational capability

Seventy-five percent of what we do is invisible

SERVit Project Executive

Understanding this kind of invisible work and rendering it visible features prominently in some of the sociological studies of work (Star, 1991a). An example of this is Suchman's (1996) description of the gap between the capability applied to the complex, continuously adaptive work of ground operations staff in an airport and the limited version of it in the record, "the erasure of human labour" (Suchman, 2007). Suchman's concern is that the loss of this information diminishes the possibility of redesigning work to achieve better outcomes based on feedback from enactment. The parallel in our case would be that the missing information diminishes the possibility of designing SLAs or related instruments that better reflect conditions of practice and of improving value creation from the existing capabilities. In some instances, in the case of the Help Desk, for example, the information is not in fact missing; much of the information exists in the diverse personal and collective databases. Drawn from experience, interpreted, recorded, retrieved and updated (Levitt and March, 1988), it

is invisible except to its creators and users and irrelevant to the Help Desk SLA metrics related to the time taken to answer the phone. Without this information, it is difficult to develop, refine, and exploit capabilities to generate higher value. Nor can it provide the means for initiating exploratory work and experimentation that can lead to practice innovation. The very invisibility of this work makes it possible for FixIT to declare that Desktop Support processes are generic, while at the same time benefitting from the reality that they are not, by incorporating the many of the specific capabilities that come with participants Nitan and Suman. Willcocks (2011) reflects more generally on this as a reason for relatively slow progress in the maturity of outsourcing processes: "key people learn, then leave. Organisational learning is not institutionalised".

Relational capability in the enactment of B2B services is invisible too in the literature of service design and services marketing. While relating and adapting to generate value in person-to-person exchanges between the business and customer (B2C), known as the front stage of a service (Glushko and Tabas, 2009) is well addressed, a "line of visibility" separates front stage from back stage support processes within the business (Bitner et al., 2008). Despite conceptualising front stage services and back stage services as complementary parts of a network of services (Glushko and Tabas, 2009), relational and adaptive activities in B2B services in that network are not addressed. The silence of the record on the nature of work in the cycle of enactment is also reflected in a perspective of B2B services as discrete entities with arms-length relations (Cullen et al., 2005), reminiscent of the invisibility of servants in 19th century Britain being maintained by their having to stand facing the wall on encountering their employer in the upstairs domain (Lethbridge, 2013 p.251). Certainly, there are significant differences in the nature of the enactment of B2C and B2B service. However, both depend in part on some kind of relational capability to generate value and create useful service outcomes. In this parallel lies an opportunity for expanding and adapting existing work to the question of relational capability in B2B SLA enactment.

7.8 Conclusion

In this chapter, we reframed the adaptations to the SLA in the EUCS enactment as intrinsic to a systematic but under-represented cycle of enactment. The

characteristics of the cycle we described included: emergent conditions which triggered relational interactions, supported by informal knowledge sharing, that culminated in decisions to adapt SLA rules. This cycle, we argued, managed the gaps between the terms of the SLA and achieving BAU largely through informal mechanisms of learning, negotiating, and adapting that were routinely used, were a source of resilience in complex changing conditions, but were largely invisible in the record. We reconceptualised these mechanisms collectively, as relational capability and argued that underrepresentation of this capability in the record constrains its discovery, representation, refinement and innovation, thus missing out on opportunities for increasing value generation in enactment, particularly in the context of a multi-vendor web of services.

CHAPTER 8: Conclusion

8.1 Introduction

This study aimed to contribute to possibilities for value creation in the growing market for CITi-B2B services by addressing a perceived gap in research on the practices of SLAs enactment in those services. A goal of this study was to develop a rich understanding of that enactment through unpacking practices of its participants that are typically under-represented in the SLA. This detailed investigation into the nature of the gap between the representation of a CITi-B2B service in its SLA and its enactment has identified value-generating but largely unacknowledged patterns of practice, which are amenable to representation, improvement, and innovation in the contracting and managing of CITi-B2B services to better reflect the multi-faceted generation of value in these settings.

The main contribution of this thesis is to the body of knowledge on service contracting and SLAs. What distinguishes it from much of the work in this area is the novel use of ethnography in an IT operations environment where the unit of analysis was micro-personal linkages, leading to insights into the practices of SLA enactment. In this chapter, we present a summary of this research and its contributions, concluding with a discussion of its implications and directions for further work, and its limitations

8.2 Summary of research

We conducted an ethnographic study of a CITi-B2B service provided by a multinational IT services organisation for its customer, a global financial organisation, in the context of a web of interdependent services from multiple providers. We used relational theory of contract as a theoretical perspective to give us an expansive view of the nature of contracts. Our particular focus was the End-user Computing service (EUCS). Taking an ethnographic approach, we observed the practices of enactment and gathered first-hand accounts of events that unfolded as services were enacted daily over a period of nine months. With this rich, empirically grounded data, we created a detailed description of the practices of enactment.

In our analysis of this data, we identified the cycle of enactment which managed the gap between the SLA and its enactment and created value. That cycle was characterised by: relational interactions triggered by emergent conditions, informal knowledge sharing, negotiated decision-making and adapting the terms of the SLA. We also identified informal but systematic mechanisms of learning, negotiating and adapting which enabled the cycle of enactment. We have collectively termed these mechanisms relational capability. We argued that were this capability to be formally represented it would be amenable to discovery, representation, refinement and innovation, as is the case for other organisational capabilities, to improve the generation of value.

8.3 Key contributions

8.3.1 Theory and discipline knowledge

8.3.1.1 SLA and services contracting research

The main contribution of this thesis is to the body of knowledge on service contracting and SLAs. It contributes the first empirically grounded, in-depth understanding of the nuances and characteristics of SLA enactment at the level of micro-personal linkages.

8.3.1.2 A detailed conceptual representation of a service system

Drawing from cross-disciplinary perspectives on the nature of services, we developed a detailed conceptual representation of a service. This conceptual contribution to services research goes further than previous representations of services in that it provides a framework for understanding an instance of service enactment in a more holistic, detailed and finely grained way than previously, and makes important distinctions among its elements. In addition to the provider, the customer, and the interactions between them, its elements include the target of a service as a material or immaterial entity to be transformed according to the terms of a value proposition. It makes an important distinction between interventions made by the provider and customer on the target and their interactions; and accounts for resources, emergent conditions, and service outcomes. We used it as a framework for analysis of instances of service enactment throughout this thesis and it enabled us trace the enactment of the EUCS service ethnographically in sufficient detail to understand practices. It was also congruent with many elements of relational theory of contract and was an appropriate framework for the new concepts we generated in this study. We were able to use it consistently as the study progressed, including mapping our findings to it. For other services researchers it may provide a framework for empirical studies of service enactment as well as lending itself to modifications, additions and other improvements, including testing its usefulness in other settings.

8.3.1.3 Empirical research based on relational theory of contract's core premise that all contracts are inherently relational

Our study extends the body of research based on relational theory of contract's core premise that all contracts are relational to some degree. This body of research (discussed in chapter 3) uses elements and norms from the theory as the basis for empirical research. The unique contribution of our research to this is the level of granularity at which we made use of the theory, its combination with ethnography, and the extent of the study.

8.3.1.4 Conceptualisation of the cycle of enactment

Conceptualising SLA enactment as a cycle that creates value by managing the gap between the SLA and its enactment, contributes to services research as a potential lens for understanding other service practices. The four characteristics of the cycle: relational interactions triggered by emergent conditions, informal knowledge sharing, negotiated decision-making, and adapting the terms of the SLA, in turn, provide a detailed framework for analysing and understanding services enactment.

The embeddedness of relations and lack of acknowledgement in the cycle of enactment, highlight a potentially rich source of information about work practices which are not generally visible but could be exploited.

8.3.1.5 Conceptualisation of relational capability

By conceptualising the systematic mechanisms of learning, negotiating, and adapting, as relational capability, we relate it to organisational capability research. Extending existing research related to developing and innovating in organisational capabilities, might enable valuable exploitation of relational capability. Applying the concepts and techniques of organisational capability management and improvement to relational capability in services could contribute to value generation in services.

8.3.2 Methodology

Use of extended ethnographic fieldwork in CITi-B2B services setting where the unit of analysis is micro interpersonal linkages at the operational level to produce a detailed description of practices of an SLA enactment in CITi-B2B services.

Use of relational theory of contract as a theoretical perspective for an ethnographic study giving an expansive view of the phenomenon being studied

8.3.3 Practice

ITSM frameworks are based on a narrow conceptualisation of SLAs as normative instruments. The insights from this study could be used to expand that conceptualisation, particularly as frameworks increasingly attempt to address business value rather than just process quality (Maurer and Ackerman, 2012). As CITi-B2B service provision grows, our detailed conceptual representation of a service system may provide a useful analytical tool to complement others which are being developed to increase the efficiency of service delivery centres.

8.4 Implications and future work

The cycle of enactment is adaptive and involves learning and the creation of knowledge. Embedded in relations, it is essentially collaborative and innovative and yet neither its processes nor the knowledge generated from them are formally captured and mined. The implications of this are significant for improving value generation in CITi-B2B services. At the same time, new ways of capturing and mining information are emerging, known generally as analytics. Since analytics, and related information capturing and analysis tools touch on much of the future work we suggest here, we will first discuss analytics and then look at specific suggestions for future work under the following headings:

- Intelligence gathering and sharing: the learning SLA
- Knowledge creation and sharing
- Improving and exploiting relational capability
- Operationalising the over-arching clauses of the contract
- Articulation work in multi-sourcing environments

8.4.1 Social analytics

De Paula et al.(2012a) use the term social analytics to describe the use of data mining to investigate social/relational data. They describe social analytics as investigating patterns of interactions that emerge from the information traces people leave behind

in electronic environments, by bringing together data mining and social network analysis techniques. It analyses the pattern of work interactions that emerge from the mining of internal social media systems, log data of service delivery management systems and organisational structures. In a case study of which trialled a use of these techniques, de Paula et al. (2012a) contrasts the normative view of service delivery as a structured, routine, individual problem-solving activity with the inherently collaborative, contingent, adaptive, problem solving activities that are revealed in studies of work practices. The use of these tools in a service delivery environment raises the possibility of employing them, or related tools, to exploit the valuable information we have described in the previous chapter that is well understood by participants but unavailable in the record.

8.4.2 Intelligence gathering and sharing: the learning SLA

Currently, SLAs are static instruments whose fundamental purpose is to externalise contractual agreements for specific services and to provide metrics for the provider's governance processes of monitoring compliance with the contract. SLAs, however, are created through the customer's and provider's contract negotiation processes, monitored through the customer's IT governance processes (a subset of corporate governance) and are central to the provider's IT service management processes. They have many "touchpoints" at various levels in both organisations, and this places them in a position to be a conduit for both receiving and disseminating information using data capture and analytical tools. Yet their informational role is one direction: they disseminate information they do not collect it even though in their role in service design, governance and enactment they are part of the inherently collaborative, adaptive and contingent practices of every day work. An SLA remains a representation of previous knowledge and is not part of a process of learning that is captured in organisational memory. Currently, a change is made to an SLA only through formal change management processes, when external conditions change (i.e. technology changes) or when new features are required in a services, or a new service is required. A learning SLA might be changed on the basis of what happens in practice in its enactment.

If we reconceptualise SLAs (or related instruments) as dynamic, learning, instruments we can re-locate them as the nucleus of dynamic intelligence gathering and disseminating processes related to strategic use of IT from design through governance and service management to service delivery. Analytic tools can be used to capture and exploit information about the enactment of SLAs.

This and other studies of work practices show the gap between the normative and the actual, and the importance of understanding that gap. Moore (1978, p. 4), speaking of rule-systems (laws and contracts), counsels recognising the processes which operate outside the rules as inescapable, essential to be understood, and as adaptations necessary to deal with gaps, ambiguities and conflicts, rather than deviations. Taking a dichotomous compliance/deviance approach to the dynamic nature of rules in general reduces our ability to fully understand what happens in practice (Moore, 1978, p. 4). In a similar way, maintaining the compliance/deviance approach as the primary role of SLAs restricts our conceptualisation of their enactment in practice.

The cycle of enactment and relational capability are under-represented in SLAs and in service management frameworks. The implications of this are that information need for services costing, representation, analysis, refinement and innovation is unavailable, thus missing opportunities for increasing value generated in enactment. The development of formalised models of the cycle of enactment which can be refined through analysis of actual enactment could provide this information. For example, much of the "invisible" work we identified was likely to be at the provider's expense such as helping customers understand their processes, or complying with over-arching clauses of the master agreement. Presumably, these are factored in to contract costing to mitigate risk. A learning SLA could recycle detailed knowledge about the actual cost of those back into the contract to improve risk calculations.

Data capturing and analytical tools could give feedback from the enactment of a CITi-B2B service which could be used to inform the design of SLAs that can better reflect the value generated in enactment. Currently, SLAs are designed in the sales domain and enacted in operational domains, but the SLA-related knowledge of sales practitioners and of operational service delivery staff comes from very different

communities (Brown and Duguid, 2001). Bridging that gap would be an important consideration.

The information could also provide valuable feedback for the processes of governance, service management, and relationship management, in each of which the SLA is a key component.

8.4.3 Knowledge creation and sharing

Increased transparency and sharing of information about enactment could also improve the transferability of important knowledge gained from practice. Knowledge whose meaning can be shared with other stakeholders through portals (Blomberg, 2008), or social media. Touch point modelling, a front-stage B2C technique for understanding customer- provider points of contact, can be used to map and visualise inter and intra-organisational contact points (Martin et al., 2011) such as the networks that the Help Desk consultants generate. Social media tools could be used to increase and improve knowledge creation at the Help Desk and analytic tools could be used to better leverage the knowledge already generated.

8.4.4 Improving and exploiting relational capability as an organisational capability

From different perspectives, Macneil (1980) and Suchman (2007) each argue that a codification of conditions of enactment (for example, a contract or a plan) can neither capture all contingencies nor understand and adapt to emergent conditions, as humans can. This means that there will always be a gap at some level of complexity to be filled by human intervention and hence a role for relational capability. This capability can be formally expressed, monitored, measured and evaluated (Michell, 2011, Merrifield et al., 2008), by extending the substantial body of existing research related to developing and innovating in organisational capabilities.

8.4.5 Operationalising the over-riding clauses of the contract

As we discussed in the previous chapter, the cycle of enactment is potentially a rich source of information about how the over-riding clauses of the contract are actually operationalised. This could be useful for formulating the terms of contracts and SLAs as well as for improved methods of operationalising the clauses.

8.4.6 Articulation work in multi-sourcing environments

With the growing use of multi-vendor sourcing in CITi-B2B services, the need to address the complexity of their coordination, integration, and management is high. Articulation work drove the conduct of bridges, as we illustrated in Chapter 6. This was coordinated by problem managers all of whom had substantial experience working for both organisations and thus embody high level, and perhaps unique, relational capability by virtue of the synergistic nature of their dual skill set. Bapna et al. (2010) identify the need to understand the "helping efforts", such as those we have described here as articulation work, that are part of the process of coordinating services in a multi-sourced environment as an important research task ahead. Capturing and codifying (in as much as is possible) such skills to stream-line the processes of multi-sourcing integration is likely to be challenging.

8.5 Limitations

Ethnographic studies are necessarily ideographic in that they observe the details of everyday life to generate a rich description of a phenomenon. The expectation is that such understanding will lead to deeper insights and more reflective practice. However, the generalisability of many of our specific is debatable and not comparable with what can be achieved through cross sectional-sample based research. As well, access to the fieldwork site and to the customer and provider participants understandably came with significant confidentiality conditions. This has constrained our ability to share and analyse some of the information that was gathered.

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Appendix A: Thematic analysis by participant narrative

Sample of participants' stories analysed by constructs synthesised from the theoretical and ethnographic literature and constructs which emerged from the data

Greg's stories: G1. the laptop install, G2. The wireless card G3; 4 laptop installs refused. Nitan's stories N1. Anthony's stories: A1 Charles, Tom, Finserv upstairs, Cheryl?	
Precipitating events for the service instance	G1. FINserv staff member moves from one region to another G2. FINserv exec travelling on business G3: FINserv exec wanted four laptop installs queue jumped N1. Failure of customer to use correct form of request for dt support – phone rather than raise ticket A1. CSAT
Entity to be transformed Ch2	G1. State of laptop connection/authorisation G2. state of laptop connectivity G3. Laptop connectivity N1. Desktop? A1. Customer's degree of satisfaction talk about csat's and the focus group
What does the **SLA** say? And what's the **metric**? And what's the **value proposition** of the SLA **"Canonical Joe"** Ch5	Both requests are categorised as installs by the SLA SLA install time = 10 days The cost/benefit for SERVit for that SLA install time is adequate on the understanding that deviations will exist, 'but that they will balance on the books' For SERVit, their value ..... G3. SLA says no N1. Must raise a ticket on-line and wait in the queue A1. SLAs are green therefore value proposition met
Emergent conditions What other factors influenced the event (contractual or otherwise) Ch2, 3, 4	G1 G2 The emergent condition for both is their need for location-transparent continuity of the EUC service. The SLA assumes that continuity is to be achieved through connection to (and authorisation on) a location-specific hardwired network . this could be interpreted as "in best interests" G3 won't jump because not enough resources N1 make judgements in changing circumstances and people A1. End of contract, fin crisis
Interactions/interpretations/ negotiations *interaction is a name for the ongoing, contingent coproduction of a shared sociomaterial world*	G1. FINserv staff member requests laptop connection/authorisation in new region using standard procedures; FINserv BA makes personal representation to Greg; Greg makes personal judgement about priority based on his interpretation of the request as a break in business continuity G2. FINserv exec requests mobile connection using standard

(Schegloff (1982) as cited inSuchman, 2007:23) Ch 2, 3, 4	procedures and asks SERVit RM for priority; RM shoulder-taps Greg to jump queue; Greg interprets the RM's shoulder tap as a decision by the RM to override the SLA (typical interpretation of a shoulder tap). G3: negotiations - SLA jumping when saying no N1. Interprets an inappropriate request and a symptom of an underlying problem, the root cause of which is customers lack of understanding (lack of training) A1. Asked to call to find out why not happy and must decide who is telling the truth
Interventions: adaptations/adjustments Ch 2, 3, (Macneil and Moore)	G1. Greg decides to change priority in EUC queue G2. Greg agrees to RM request and changes priority in EUC queue G3. Explains why refused – seeks and gets customer's understanding and acceptance. SLA + negotiation keeps them happy. I can get them onside during problems N1. Nitan inserts a non-SLA job into the queue i.e. to educate users a 'workaround' i. e. 'Enabling the user through explanation' A1.placates RULES + ADAPTATION → MEET BUSINESS NEEDS
What was transformed as the result of the intervention? (outcome?) Ch 2 **What was the impact of the adaptation**	G1. laptop connected and authorised → EUC service continuity → BAU + relationship G2. laptop has mobile connections + relationship G3. The relationship? N1. Users knowledge + relationship A1. Customers degree of satisfaction
Participants' points of view and affect, what meaning do they give it? Why is affect important Ch 3, 4	see my ch. 3 for list of Macneil's questions G1. Business value of relationship – good relationship improves FINserv bottom line and that is good for SERVit. Also good relationship is resource for when there are problems G2. ditto plus recognises importance of RM's judgement N1 like we are all in the same organisation –ouchi N1. Goes beyond SLA and there is insufficient responsibility on part of user to contribute to successful outcome. He has to understand customers policies, service levels processes etc to enable the relationship to flourish Tariq "stretch target" SLAs are green but is there value add) THESE ARE DESCRIPTORS FROM TOM SO PUT MORE IN ABOUT TOM. One way street, Policing by governance, Servitude, Honour, The brand, extra mile, marriage, Need, cost of extra mile) A1. inadequate root cause analysis, bcse no flow on from the call into the formal processes derived from the SLA.

Perceived value of the intervention (e.g. on the brand, on the SLA metrics, mutually beneficial/advantage taken	G1 G2. It builds relationships. Satisfaction in helping people to be productive. Relationship investment can pay off during problems. Generate trust. Mutually beneficial N1. Lowered ongoing cost, built relationship. A1. Little to negative A1. The cream on the cake is the workarounds and extra work to keep everybody happy. RELATIONAL ACTS →BRAND LOYALTY → NEXT CONTRACT
Measurement of exchange and other factors (measured/unmeasured/unmeasurable)	G1. G2. not formally measured, or monetized (except in the overall sense of it all balances out in the long run) – building relationships, working the sales pipeline (Charles?), N1. Un measured but maybe measureable? No formal measurement of effectiveness within Provider domain but possible some reflection in CSAT A1. Not formally measured, becomes part of mood assessment
Acknowledgment (acknowledged-formally/informally) Ch 3?	G1 G2 Greg's behaviour rewarded by him becoming a RM at the end. Informally acknowledged through reciprocal trust (payoff during problems) e **Underrepresentation in the record (**Talk about value add in governance meetings N1. Personal acknowledgment from customers A lot of this stuff is in the sweep and best interests clauses but is not measured or acknowledged A1. None
SLA vs what happened **Failure of SLA? Limitations of SLA?** **Asymmetry: SLA can neither cover all contingencies nor adapt to them. Therefore human judgement and adaptation is required**	Greg – balance on the books versus the relationship Nitan failure of SLA or lack of customer responsibility A1. Outside the SLA and its formal measurements
Overall **type of relations among** parties to the interaction: Degree of personal involvement personal, mutual Style of communication (verbal/written) Subject matter of satisfactions Ch3	G1. personal involvement personal judgement individual contribution to BAU, verbal G2. personal involvement , verbal N1. Verbal, individual e.g. & Making "relationship" calls v. "service" calls Individual provider satisfaction internalised. Economic satisfaction for org.: potential for influencing renewal of contract (integrated into the relationship) Communication – verbal Personal, mutuality, A1. High personal involvement, verbal, economic satisfaction ....
Direction of interaction - from above w/in SERVit to across SERVit – FINserv or just across (independent judgement	G1. across G2. from above 'it's not the kind of relationship where I can say why are you coming to me' G3. up N1 across

	A1.across
The three dominant norms that drive (heavily influence) adaptive behaviour in complex contracts Ch 3	
1.Role integrity Consistency in adhering to an expected pattern of behaviour over time. Role becomes the foundation for future reliance and expectations between parties in the relationship without necessarily referring to the contract.	G1 G2 N1 T1 C1 A1 Best interest, extra mile, the brand, keep the customer happy
2. Preservation of he relationship (reciprocity, contract solidarity (justice and dependability) and flexibility – accommodate change)	all
3. Harmonisation of relational conflict (harmonisation of the social matrix plus flexibility	?

Appendix B: Excerpt of synthesised themes by chapter

Working paper – excerpt from table of themes emerging from literature on services, relational theory of contract and ethnography, mapped to chapters

Macneil **Mo**ore **G**adrey **Ge**ertz **N**ormann **RB** relational behaviour **norms** (role integ, pres. of rel, harmonise) **ELMS** type, measure, part. view)

	RELATIONAL **(INTERACTIONS)**	**COMPLEX, EMERGENT, CONTEXTUAL**	**ADAPTIVE**	**UNDERSTAND &** **EXPLAIN**	**CONTRACT** **Canon vs enact.**	**ELEMENTS (& NORMS**
CH 2	Service relations and interactions A and B interact or play a complimentary role in transforming C p42	Interactions and interventions of A and B on C G	Dynamic allocation of heterogeneous resources co-producing value V/L, Spohrer 2007	Problems with SLAs Contract vs performance	Value proposition V/L	Type of RB (intensity) G

	Co production of value Normann Ackoff/Emory	Re-interpreting the contract in emergent conditions v/l over time	Bundling/unbundling of resources, dynamic configuration of resources N	Coordinating players in the web – important for this		Measurement of outcome G
	Relational interactions	Systems theory				
		Web of service providers and customers – value nets				Measurement of value v/l
		End-to-end G				
CH 3 **RTC**	Relational, exchange relations , relational and emergent nature of contracts in practice M	Conditions of operation Mo	Adaptations, G adjustments of relations integral to performance M	Gap between abstract representation of contract and its performance not well	Figment of the imagination M	Participant views

				understood Mo		
	Political and social processes of the relation	Emergent G M	Adaptive is not deviant Mo	Exclusion or under-representation of aspects of contract in the theory means they cannot be explained M and G	Contract as Rule system Mo	
	Elements: Participant views, types of behaviour M	Rule systems inherently open to interpretation and so include ambiguities , gaps, conflicts Mo	Re-interpretation of the value proposition		SLA as rule system	measurement - Un-measured qualities (classical) M + G + Mo
		Contract as figment of imagination M	Adjustment of relations as an integral part of contract performance M	Under-representation of social relations M	Contract vs performance	Norms Govern relational behaviour i.e. role integrity, preserve relat,

						harmonise
		Complex web of exchange relations M	Contract performance in practice	Compliance/deviance approach of rules Mo	Canonical relev. in technology studies	
	RELATIONAL **(INTERACTIONS)**	**COMPLEX, EMERGENT CONTEXTUAL**	**ADAPTIVE**	**UNDERSTAND & EXPLAIN**	**CONTRACT** **Canon vs enact.**	**ELEMENTS & NORMS**
CH 4 **ETHN**	Multiple perspectives & local meanings through thick description with layers of **interpretation**	Observation of events in context (social groups in natural settings) Ge i.e. conditions of operation Mo	SLAs as rule systems e.g. Human machine reconfigurations Lucy	Access to the under-represented thru Thick description Ge gives access to the interpretation of rule systems' ambiguities, gaps & conflicts Mo &	Show how performance interprets contract	

	Observation of events in context social relations social groups in natural settings (relational interactions)	Breaks down the complex	reconfigurations are adaptive to context (thick d)	Reframe our understanding of a phenomenon		
	Enlarge possibility of intelligible discourse between different but connected Ge	Daily practice	Social groups in natural settings	Challenge canonical relevance of theory or rules		
		Social groups in natural settings		Intelligible discourse provider and customer understand each other		
CH5 **CANON**	Behavioural protocols	End-to-end	Sweep clause and manage the whole		Contract, SLA, procedures, reviews,	Sweep clause and manage the whole: 3 norms

	Mutual obligations at hi level	Sweep clause, in best interests manage the whole			Specifications, definitions, indicators, metrics	r-type is arms length, commoditised, codified,
	Rules for requesting IMAC at operational level				Charges and penalties	Performance metrics from SLA, how fast to restore, are the lights flashing and can people use it plus some CSAT
	Rules of governance				Contract as sales artefact	Viewps – global sales team and hi

						level exec
CH6 **WKING RELS**	Governance tim	e.g. card problems complex	Tim and penalty	Mary 75% not in contract Rels are under-represented, e.g. EUC SLA not relevant to Call Centre. Front stage vs backstage	FRANCIS Rules inadequate for outcome Arms length doesn't work & diff to front stage. Contract design and enactment needs don't match	Tim re digging heels in.
					Expectations not managed	

					Not meeting rules	Measurement of value – steve financial penalty

Appendix C: Sample of coding

Nodes showing themes which emerged from data

Type	Name	Memo Link	Sources	References	
	difference between multi cultural and global~		1	1	
	end-to-end		1	2	
	knowledge transfer		1	1	
	multi vendor management		1	2	
	people cmm		1	1	
	skills - other		1	2	
	touch point value		0	0	
	canonical and beyond		0	0	
		customer expectations at corporate level		1	3
		manage the whole		2	2
			manage the whole diff perspectives		2
		Beyond the contract		1	1
			doing what should be done		1
			the extra mile		1
			brand 'the brand'		0
			canonical vs generative co-creation		2
			beyond the job description examples		1
			dynamism is expensive.		1
			collaboration		1
			complexity		1
			value in beyond the contract		4
		explicit reference to extra-cannonical		4	6
		SLA monitoring and reporting		5	7
		SLA construction		2	2
		tension between canonical EUC and enacted EUC		2	4
		referent ideology		0	0
		ambiguity and clarity		0	0
			ambiguity of contract and its impact		3
			wanting clarity, no ambiguity		0
			expectations - desire for clarity		1
			tension between exec decisions and operational consequences		2

	invisible in the record - underrepresentation		5	8
	failure of sla to ensure outcome		2	3
	implicit in the sla		1	1
	divisions of ntellectual labour		0	0
client assessments of provider		0	0	
	informal		0	0
	formal		2	2
	client satisfaction - measurement, evaluation		12	13
	focus group		4	7
	assessment of mood		1	1
	cllient perception of provider		2	2
complexity of networks of client and providers		9	11	
	SLAs as nodes in the web of services		0	0
	the value net		0	0
co-production		1	3	
description of orgs, roles and processes		0	0	
	Governance		13	29
		third party auditing potential		1
	Help Desk		4	6
	BAU		1	5
	Projects		1	3
	Problem management		3	4
	relationship managers		10	13
	change management		1	1
	bridge		4	6
	contract, slas		11	16
	EUC description		2	2
		installation		1

			break fix		1
			severity levels		1
			EUC team		1
			canonical		0
			EUC reporting on SLAs		2
			process improvement		2
			euc as window to all apps and services		1
			Project managers		1
		out-tasking and outsourcing		2	2
		sweep clause		1	7
		org1 descriptions		8	14
		org2 descriptions		12	15
		org differences		1	6
		project executive		0	0
		deputy project executive		1	2
		knowledge workers vs service staff		2	3
		incident management software		1	2
		Ariba org 2 asset system		0	0
		root cause analysis		4	5
		componentisation commoditisattion and differentiation		2	2
		org2 restructuring		6	11
		org2 clients and providers		4	8
		org2 client experience of org2		1	5
		org2 metrics as public facing provider		1	2
	developmental stages of Joe		1	1	
		anticipated		1	1
			three stage life cycle of the service		3
			innovation during lifecycle		4
		actual		4	4
			loss of contract		10

		effect of GFC global financial crisis		5	5
	entry, settings and setting up		8	11	
		Org response to research		5	8
			problems with slas		1
		Gaining entry		2	2
		planned vs actual in research project		2	2
		soundscape		2	2
		landscape		2	2
		affectscape		14	18
		response from participants		1	4
		my affect		2	2
		my visual images		2	2
	Front stage back stage		0	0	
		front stage back stage		1	1
		Does this relate at all the Giridhar's comment about front stage been different backstage and minds sa		0	0
	hybrids, crossovers		4	4	
	indigenous terms		0	0	
		shoulder tap		0	0
		brush		0	0
	innovation		3	3	
		collaboration in innovation		1	1
	Joe Eucbau, a dynamic servant		7	8	
		forms of exchange in euc in action		0	0
		what does joe do		1	1

	Joe in adaptation mode			0	0
	BAU			2	3
	interpretation of slas in practice			1	3
Learning			0	0	
	customer learning			0	0
	provider learning			0	0
	experiential and relational learning			1	1
magic wand			6	7	
managing expectations, experiences and behaviour			2	3	
	perception management by provider			1	1
metaphors			13	25	
	Soft			3	4
	servitude			1	1
	marriage			4	4
	Bridge			1	2
Methodology			1	2	
	Methodology			3	8
	law as process			1	1
provider perception of client			4	10	
	behaviour driven by governance or contract			1	3
related instruments to augment slas			1	1	
Relations			0	0	
	relations in the record			1	1
	relations in action - examples			11	20

	shared understanding -meaning		1	1
	Touch points		9	15
	Interactions		1	1
		written interaction		1
		verbal interaction		0
		formal approved interaction		2
		informal approved interaction		2
		target of interaction		0
		outcome of interaction		0
		provider in interaction		1
		customer in interaction		1
		activities of interaction		1
		shouder tapping interaction		0
		context - time, place, circumstances		0
		technology as actor in interaction		1
		other resources		0
		affect		0
		initiatior		0
		proximate cause and motivation		0
		relation of interaction to sla		0
		actual intervention		0
		value proposition of intervention		0
		direction		0
	one-way street		3	3
	business value of relationships		5	5
	negotiating work-arounds		1	1
	servitude and personal ministration		6	9
	relational is unmeasureable		2	5
	emotional labour in the euc		9	15
	unfairness		3	5
	relational skills		10	15
	partnership		5	7
	formal vs informal		2	2
	client attitudinal response to incidents		1	1

	benefits of formalising inhouse as outsourced service			2	2
	tacit knowledge			2	2
	for the sake of the relationship			1	1
	relations between competency and team			1	1
	relations with amex business			1	1
Shared norms and harmony of interests			0	0	
	one company			7	11
	business - 'the business'			2	2
		provider focus on client's goal, business			2
Theory			1	1	
	relational theory of contract			0	0
	Formalism embedded in contracts and embodied in roles			2	9
Value			0	0	
	co-production and value in use			2	2
	Value in relational			1	1
	unacknowledged value			4	4
	SLA contribution to creating value			0	0
	value created at the operational level			2	2
	SLA- the value proposition			0	0
web of services			0	0	
writing up			0	0	
	exec report to org1 and org2			2	3
	writing tips			1	1