EX POST MANAGEMENT OF PUBLIC PROCUREMENT CONTRACTS

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DECLARATION

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ABSTRACT

Public procurement policies requiring frequent tenders and defined contracts give rise to expectations of low cost quality services and present management challenges for the post tender contract. Frequent tendering undermines the principal agent relationship and contract incompleteness allows unforeseen contingencies to threaten the specified outcomes.

This thesis examines seven cases of facilities management contracts in three third-level educational institutions. Using a qualitative and interpretative methodology, the study takes an inductive theory building approach to how and why managers address challenges, and develops a conceptual model of *ex post* management mechanisms through the lenses of agency theory, the psychological contract, and signals. It finds that the principal agent relationship is based on both written and psychological contracts, and mechanisms include incentives, information systems, and psychological contract signals. It also finds that, rather than pursuing the terms of the written contract which are frequently incomplete, the principal and agent work together towards the broader goals of the psychological contract to maintain the contract benefits.

While it has the limitations of a theory building and social constructionist approach, it offers theoretic and management relevance. It extends agency theory in public contracts by highlighting the importance of information systems, and the psychological contract in the principal agent relationship by identifying the principal's influences and the relevance of agent's perceived obligations in deciding responses. Through understanding these *ex post* mechanisms, managers may address the inevitable challenges of incomplete contracts, and foster improved responses towards optimal cost and quality outcomes.

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CHAPTER 1 - INTRODUCTION

While public contracts share with private inter-firm contracts objectives such as cost efficiency and service quality, public contracts have additional policy objectives which provide unique management challenges. This thesis is motivated by the researcher's perspective as a practitioner managing contracts in the area of facilities management. The author was a facilities manager working in the private sector from 1986 to 1995 before moving to the public sector, where he continues to manage such contracts. With increasing scrutiny of public contract performance, how to explain to stakeholders the value of these contracts is a growing challenge. The articulation of what constitutes facilities management value in the public sector may be poor and lack relevancy to the core business (Price, 2002, p. 62). This may lead to reduced budgets and a declining contribution of the procured contracts to the organisation. Research exploring what practitioners do is important in understanding how public procurement challenges may be managed (McKevitt *et al.*, p. 335). Through this study, this researcher endeavours to acquire improved theoretic and management insights to better contribute facilities management value through public procurement contracts.

While there are significant literatures on public procurement and contract theory, these address the issues around the public tender process and contract design comprising the *exante* mechanisms intended to secure the contract outcomes. Despite *ex-ante* controls, administrative procedures, and legal constraints to reduce performance uncertainty (Potoski, 1999, p. 625), the reality is that *ex post* trade is, at best, only partially contractible (Hart and Moore, 2008, p. 3). After a contract is signed, unexpected situations arise *ex post* which are not addressed by the written contract and threaten the intended contract outcomes. In contrast to the *ex-ante* aspects of public procurement, little research exists on the *ex post* mechanisms to guide managers when faced with situations unforeseen by the written contract.

In this chapter the research problems and the research questions are set out. Next the potential contributions to the literature and management practice are discussed. Finally, the methodological approach and the thesis development are outlined.

1.1 RESEARCH PROBLEMS

Public procurement may be broadly defined as the acquisition of works, supplies and services by public bodies (National Public Procurement Policy Unit, 2009, p. 6) giving rise to public contracts between government agencies and private suppliers. Public procurement differs from private procurement in that governmental purchasing administers money belonging to all taxpayers, the numbers of customers are high, and despite the availability of numerous suppliers, information asymmetry may cause uncompetitive bids (Costantino et al, 2012, p. 189) and resulting in calls for better transparency and value from customers and taxpayers. Unlike contracts between private firms, public contracts are regulated by public procurement legislation which has commercial, regulatory, and social objectives (Erridge and McIlroy, 2002, p. 53). This results in significant management attention to the public tender and contract design processes and the design of the contract to accommodate these objectives. Given the public nature of the contract forming process, these ex-ante contract terms may not easily be re-negotiated to address unforeseen risks and contingencies which arise in the ex post management stage. Public sector organisations, then, have less flexibility than their private sector counterparts in structuring contracting arrangements to align vendor interests with those of the client (Ngwenyama and Sullivan, 2007, p. 633). Within these contracting arrangements it is possible to identify three ex post management challenges as research problems.

The first relates to the contract itself. While frequently designed by experienced managers, it appears that despite the lengthy *ex-ante* procurements procedures, public contracts do not address *ex post* management situations. Public contracts tend to be inflexible, leave little to the contractor's discretion, lack flexible incentives, and not to address all contingencies (Walls, 2005, pp. 217 - 218). Modifications of existing contracts into longer-term arrangements result in poor contract design (Kim and Brown, 2012, p. 688) and managers often prefer to rely on building trust with suppliers to overcome contract incompleteness (Merkert and O' Fee, 2013, p. 125). Therefore, public contracts do not sufficiently address *ex post* contingencies of the contract arrangements.

Table 1.1 - Research Problems for ex post Contract Management

No.	Problem Statements	Source
1	Public contracts do not sufficiently address <i>ex post</i> contingencies.	Merkert & O' Fee (2013) Kim & Brown (2012) Walls (2005)
2	Public contract <i>ex post</i> outcomes differ from those specified in the contract.	Comptroller & Auditor General (2008) Kakabadse & Kakabadse (2001) Domberger and Jensen (1997)
3	Public contract relationships do not sufficiently foster <i>ex post</i> collaborative solutions.	Loader (2010) Murray (2009) Leiringer, Green and Raja (2009) Erridge and McIlroy (2002)

The second research problem concerns the outcomes of public contracts where the contract outcomes specified *ex ante* are not fully realised during the *ex post* management stage. Public contract managers' performance is identified as a reason for the failure to achieve expected contract outcomes. Empirical evidence suggests that public sector organizations do not secure the required performance from outsourced suppliers (Kakabadse and Kakabadse, 2001, pp. 401 - 41) due to the unwillingness or inability of the public sector manager to enforce the contract terms (Domberger and Jensen, 1997, p. 71) or inadequate contract information systems (Comptroller and Auditor General, 2008, p. 10). While managers undoubtedly make decisions and take actions that influence the contract outcomes, such decisions and actions appear to be aimed selectively towards certain outcomes over others. A problem exists where the intended public contract *ex post* outcomes differ from those specified in the written contract.

The final research problem relates to the contract relationship arising from the public tender and public accountability requirements. While value for money is achieved by competitive tendering and contracting monitoring, once the public contract is awarded, a closer cooperative working relationship is the optimal approach but may not obtain (Loader, 2010, p. 42). From a public procurement perspective, the relationship may be viewed as the management, monitoring, review, and closing down of the contract (Murray, 2009, p. 200). There may be an absence of collaborative working in the contract relationship. For example, Darwin, Duberley and Johnson (2000, p. 53) finds that while collaborative working arrangements are evident in contracts between private firms, public sector managers are required by tax payers to demonstrate transparency through a rigid management style and maintaining a formal adversarial contract relationship. Indeed some argue that public tendering rules for enhanced competition and transparency restrict opportunities for collaboration and do not achieve the desired procurement efficiency and effectiveness (Leiringer, Green and Raja, 2009, p. 275, and Erridge and McIlroy, 2002, p. 53). Therefore, whatever the causes, there is a research problem where public contract relationships do not sufficiently foster ex post collaborative solutions by both parties to the contract.

The research problems are shown in Table 1.1. In summary, these identified research problems are that during the *ex post* management stage, public contracts do not sufficiently address contingencies, the outcomes differ from those specified in the contract, and the contract relationships do not sufficiently foster collaborative solutions to difficulties. The arising research questions are now discussed.

1.2 RESEARCH QUESTIONS

From the above discussion of the insufficiency of the written contracts, the emergence of unspecified outcomes, and lack of collaborative relationships, two research questions arise in relation to the *ex post* management of public contracts. These are shown in Table 1.2.

The first research question stems from consideration of the management challenges in public contracts which may be incomplete and without the support of a collaborative working relationship. The literature suggests *ex post* controls such as monitoring performance, imposing financial penalties, and replacing the contractor in cases of outright performance

failure (Domberger and Jensen, 1997, p. 68). However, replacing a poorly-performing contractor risks disruption to a public service, may be difficult to effect in a timely way, and may be problematic (Farneti and Young, 2008, p. 94). Problems may include a legal challenge making a dismissal of a contractor a high risk approach for the public authority. In addition there are competing expectations in relation to public procurement contracts. The demands of consumers and taxpayers for cost reductions and quality improvements (Erridge and McIlroy, 2002, p. 56), the objectives of efficiency (Parker, 1990, p. 653), and the optimisation of contract cost and quality (Jensen and Stonecash, 2004, p. 10) may not be fully realisable with the limited scope of the contract. Faced with such competing demands, how do public sector managers endeavour to achieve the required contract outcomes, and why do they focus on some requirements rather than others? Therefore the research questions may be framed as how are ex post management mechanisms used by managers to secure optimum contract outcomes? and why are ex post management mechanisms used by managers to secure optimum contract outcomes?

Table 1.2 - Research Questions for ex post Contract Management

No.	Research Question	
How are <i>ex post</i> management mechanisms used by managers to secure optimum contract outcomes?		
2	Why are <i>ex post</i> management mechanisms used by managers to secure optimum contract outcomes?	

In addition to the research questions, a research objective may be developed from the apparent discord between the public tender and contract design process, the actual contract outcomes, and the performance by the public managers. It appears that *ex post* management of public contracts is a simultaneous collaborative and adversarial balancing of costs, quality, and accountability to the customers and the taxpayer. How can this dynamic be better

examined and understood? As it is the job of the researcher to abstract from the particular to the general to develop concepts (Mintzberg, 1979, p. 587) a conceptual model would assist better understanding of *ex post* contract management. This gives the research objective, *can a conceptual model be developed that would better support the understanding of ex post contract management?*

The potential implications and contributions of a study into these research questions are now addressed.

1.3 CONTRIBUTIONS

A study to understand how and why managers of public contracts endeavour to secure successful outcomes during the *ex post* contract is a topic with potential management implications and theoretical contribution. These are now discussed in turn.

Public contracts are designed by public managers who frequently have experience of the ex post management of such contracts. Therefore the absence of sufficient contract clauses to deal with contingencies, the divergence between expected and actual contract outcomes, and lack of collaborative contract relationships all require explanation by formal research. The potential for contribution to management learning arises from the apparent divergence between expected and actual contract outcomes in public contracts, highlighting potential inadequacies of the ex post contract management mechanisms currently identified in the literatures. This may be due to a focus by practitioners on those literatures which highlight the ex-ante aspects of the tender process and contract design. While public procurement policies are framed as the pursuit of commercial, regulatory, and social objectives (Erridge and McIlroy, 2002, p. 53), such policies are socially constructed by participants with varying perceptions coming together to negotiate and achieve a concerted action (Colebatch, 2005, p. 21). Therefore a research study on ex post contract management has the potential to complement public procurement literatures and to provide a deeper understanding of the available mechanisms to management practitioners. This is likely to be of interest to both public and private sector managers who are involved in public contracts.

The potential for theoretical contribution from this study stems from the dissonance in theoretic approaches to the *ex-ante* and *ex post* stages in public contracts. Contracting public

services to private firms entails the formation of principal-agent relationships and the potential for agency problems due to goal differences between the parties. While agency theory focuses on designing the most appropriate contract agreement to manage the parties' interests and the contract goals (Eisenhardt, 1989, p. 58) it is an *ex-ante* approach set down at the beginning of the contract relationship. As complex contracts are unavoidably incomplete (Williamson, 1999, p. 1089), unforeseen situations arise during the *ex post* implementation stage to which the designed contract fails to provide an agreed management mechanism. As real world contract relationships generally continue despite unforeseen situations, it appears that agency theory overlooks important non-contractual aspects of managing and implementing contract outcomes. Therefore some additional theoretical perspective is required to more fully understand this important *ex post* stage of the principal-agent relationship. This potential theoretical contribution of this research has application for all contracts whether public or private.

1.4 RESEARCH APPROACH AND THESIS ARRANGEMENT

To address the 'how' and 'why' research questions and build theory towards a fuller understanding and better management of *ex post* public contract mechanisms, this thesis uses an inductive approach and qualitative methods to investigate the contract workings between public organisations and private contractors. The study draws on economic contract theory, the psychological contract, agency theory, and signalling theory to develop a conceptual model and answer the 'how' and 'why' questions. As there are both economic contract and psychological contract perspectives in relation to *ex post* contract management, the empirical work is divided into an Initial Study underpinned by an economic contract perspective, and a longer Main Study drawing on both the economic and psychological contract perspectives.

The thesis is an essential part of a Doctor of Business Administration programme, and was conducted over a four year period following two years of preparatory work. The preparatory work consisted of six structured assignments focussing on the theme of public contracting of services to private firms. The assignments are entitled Philosophical Issues in the Research Area (5,000 words), Initial Study (10,000 words), Reflective Critique (3,500 words), Formal Research Proposal (5,000), General Literature Review (10,000), and Reflective Portfolio (minimum of 1,500). As the Reflective Portfolio recorded the main personal learning

elements of experiencing, reflecting, interpreting, and action to develop the thesis learning, this assignment was continued to the completion of the thesis. The above assignments are preparation of the background for this thesis.

The thesis is arranged into the following chapters. First the Literature Review chapter reviews the development of public contracts together with the main theories underpinning the management of contracts, and sets out an initial conceptual model for *ex post* contract management. Next the Methodology chapter develops the research questions, and outlines the philosophy and methodological approach. The Initial Study chapter explores five cases of public contracts using an economic contract theory perspective on contracts and develops an improved conceptual model. The Main Study explores in depth two case studies using both an economic and psychological contract perspective to provide the final conceptual model to more fully explain the *ex post* contract management mechanisms. The Discussion chapter reviews the findings in the context of the research questions, and outlines implications for existing theory, management practice, and policy. Finally, the Conclusions chapter summarises the limitations and contributions.

The findings from the data of this study suggest three main points. The first is that rather than relying solely on the written contract terms, principals work with agents to achieve broader unwritten contract goals in preference to the written objectives. Also, while written contracts often prove incomplete and inflexible, a positive principal agent relationship provides solutions to contingencies, and secures the continuity of the contract for both parties. Finally, both agency theory and the psychological contract are required to better understand how and why managers use the *ex post* mechanisms of the contract.

CHAPTER 2 - LITERATURE REVIEW

Public contracts to private firms are wide-ranging and include services such as cleaning, refuse collection, transportation services, heavy equipment maintenance, road maintenance, fire protection services, prison management, and support services to the military (Jensen and Stonecash, 2004, p. 8). Such contracts have the dual themes of individual self-interest and the joint achievement of common objectives. After all, government agencies as buyers enter into contracts seeking products providing benefits greater that the price paid, and sellers offer products at a price greater that the cost of producing them (Kim and Brown, 2012, p. 688). At the same time, both parties have shared experiences since both public and private contracts require management of government and industrial policies, regulations, technology standards, client and supplier management contributions, and stakeholder expectations (Harland *et al*, 2005, p. 845). Understanding how and why managers of public contracts endeavour to secure successful outcomes during the *ex post* phase requires consideration of government agencies as buyers, the response of private suppliers, and the theories underpinning these practices.

This chapter reviews the literatures on contracts. First the development of public procurement and public contracts is reviewed, together with the response of private suppliers. Next the literatures of pertaining to written and unwritten contracts are discussed. Following this, the theories underpinning the management approaches to contracts are reviewed. Finally, an initial conceptual model of *ex post* management of public contracts is proposed.

2.1 DEVELOPMENT OF PUBLIC PROCUREMENT

Public procurement may be broadly defined as the acquisition of works, supplies and services by public bodies (National Public Procurement Policy Unit, 2009, p. 6) and these in turn create public contracts between governmental agencies and private providers. Public contracts have developed as a result of a growing trend by government to procure rather than produce public goods and services. This is evident in the growth in value of public procurement, the increased use of competitive tendering, more complex contracts, and management challenges. These are discussed in turn.

2.1.1 Growth in Publicly Procured Services

Public procurement of goods and services from private firms is growing. Over a decade ago, public sector procurement by US federal, state, and local government accounted for over 10% of gross domestic product in the U.S. (Bajari and Tadelis, 2001, p. 387). In Europe, between 2004 and 2008 the 27 EU Member States' total public expenditure on works, goods, and services rose from approximately $\in 1,736$ billion to $\in 2,155$ billion equating to a rise in the expenditure as a percentage of GDP from 16.37% to 17.23% (Commission of the European Communities (2010, pp. 1 - 11). More recently, it is suggested that public procurement expenditure is 20% of gross domestic product for most nations, with developing nations spending up to 50% (Kidalov and Snider, 2011, p. 1). Part of this growth is due to increased outsourcing of public services to private suppliers. While the mission of public procurement in the US during the 1930s was the acquisition of goods to enable public employees to discharge activities, during the 1970s and 1980s, new social, economic, and political thinking viewed the market as a means to provide core public services using independent contractors (Lawther and Martin, 2005, p. 212). Therefore the role of public procurement has developed beyond acquisition from suppliers to that of introducing efficiencies into the provision of services to the public. US government procurement policies and practices included movement towards deregulation, paperwork reduction, government reengineering, and improved performance (Thai, 2001, p. 13). Public procurement has grown in value and extended its scope beyond acquisition to a wider management role. Much of this is as a result of contracting out public services.

Contracting out of public services is done with the objectives of efficiency (Parker, 1990, p. 653), and the transformation towards leaner, more effective public organizations (Farneti and Young, 2008, p. 91). It is based on the concept that firms may access private sector incentives provided by the capital markets and have relative freedom from political interference, so that public procurement may bring the efficiency of competition into public services (Jensen and Stonecash, 2004, p. 4). In countries such as Holland, Sweden, and Australia, local authorities have been encouraged to use contracting as a means of organising service delivery (Reeves and Barrow, 2000, p. 130). In Turkey, public administration outsourcing is encouraged legislatively and practically, resulting in public organisations outsourcing services such as cleaning, security guards, meter-reading, patient visiting,

computing services, waste-collection and catering services (Bensghir and Tekneci, 2008 p. 97). Public sector reform initiatives in New Zealand require municipalities to use public-private competition to improve local public services, while in Australia some states require half of all local public service expenditures to be subject to competitive bidding (Farneti and Young, 2008, p. 91). While it has become readily assumed that the growth of contracting out of public services to private firms has increased efficiency, it has also provoked debate.

The debate concerns the assumed cost reductions, service quality, and the transfer of employment from the public to the private sector. For example, there is research evidence to support reduction of costs through the use of public contracts to private firms (Reeves and Barrow, 2000, p. 147). However, such cost reductions may be accompanied by a reduction in service quality, since the agent's efforts are most easily directed towards measured tasks (Jensen and Stonecash, 2004, p. 10) and the monitoring of performance quality is difficult (Domberger and Jensen, 1997, p. 74). Kakabadse and Kakabadse (2000) suggest that while public contracts may result in cost-savings and improved client responsiveness where a large pool of providers is available to generate competition, there is also evidence to suggest that difficulties arise in relation to employment, accountability, cost savings, quality, and monitoring (p. 705). For example, Leiringer, Green and Raja (2009) argue that contracting of highway maintenance by public authorities has resulted in contracts with fewer and fewer contractor firms, many comprising ex-public authority staff (pp. 274 - 275). Indeed, as a result of private sector outsourcing being one of the strongest recent business trends (Fill and Visser, 2000, p. 43), the market of larger providers offering more complex services has developed. For example Miozzo and Grimshaw (2008, pp. 8 - 9) highlight the growth of multinational service suppliers (pp. 8 - 9), with management capabilities to provide more strategically important and bundled services (Barthelémy, 2003, p. 95, Ventovuori, 2007, p. 39). Interestingly, the literature on private sector outsourcing may offer a more balanced view of the benefits and risks associated with such contracts. While the potential opportunities include increased focus, innovation, scale without mass, and strategic positioning (Leavy, 2004, p. 20), there are the risks of service lock-in, contractual amendments, unexpected transition and management costs, and possible disputes (Bahli and Rivard, 2003, p.213). The outsourcing decision requires consideration of the importance of the service to the organization's customers and employees, the market's service quality and responsiveness when compared to in-house provision (Ventovuori and Lehtonen, 2006, p. 75), and the

number of suppliers capable of providing goods or services to the required standards and volumes in the required geographical area (Lonsdale, 1999, p. 179). While the debate on the benefits and drawbacks of contracting out of public services will continue, it does appear that the risks of such decisions are more explicit in the literature concerning private outsourcing.

Contracting out is closely associated with the growing use of competitive tendering to determine the most efficient method of service provision (Domberger and Jensen, 1997, p. 69). For example, in the UK, the Conservative Government's 1988 Local Government Act extended compulsory tendering to a wide range of local authority services supplied in-house by public departments (Parker, 1990, p. 653). There is widespread public policy commitment to competitive tendering. For example, U.S. Federal Acquisition Regulations strongly favour the use of open auctions for goods and services where competitive bidding by potential suppliers enables fair market price discovery, promotes equal opportunity for suppliers, and makes it easier to prevent corruption where procurement officers may have incentives to rig the system (Tadelis, 2012, p. 297). In Europe, seven EU Procurement Directives initiated between 1991 and 2002 apply to all state contracting authorities for contracts above specified thresholds, making contract awards based on the lowest price or objective quality criteria, obliging transparency of tender information through publication in the Official Journal of the EU, and specifying three types of tender procedures (open, restricted, and negotiated) (Europe Economics, 2006, p. 3). There is debate that such policies place burdens on the both the public authority and the market supplier since public procurement costs comprise the transaction costs to the contracting authority and the bidders in the tender process (Costantino et al, 2012, p. 191). A benefit of a tender process to a public procurement manager is attainment of a quality ranking of the service provider (Dalen, Moen, and Riis, 2005, p.270). Indeed, contracting authorities have some freedom in the way it provides performance criterion, or provide potential tenderers with relevant information on how they may best tailor their tenders (Mateus, Ferreira, and Carreira, 2010, p. 207). Also suppliers have to bid more often for the same total volume of work, administrative costs are a substantial burden on smaller contracts, and service contracts suffer additional compliance costs due to the complexity of specifications (Europe Economics, 2006, pp. iii - vii). The required tendering resources are significant and can adversely affect the participation rate and success of smaller firms in the public tendering process (Flynn, McKevitt and Davis, 2013, p. 5). Finally, public markets often have limits of imperfect information, entry barriers, and relatively few

suppliers (Caldwell *et al*, 2005, p. 243). For example, perceived lack of legal expertise, administrative resources, and e-systems may reduce the success of small or medium enterprises in the public procurement bidding process (Karjalainen, and Kemppainen, 2008, p. 238). While competitive tendering of public contracts provides a demonstration of value for taxpayers, it adds administrative and management requirements to public authorities and suppliers alike.

The growth in publicly procured services has been accompanied by developments in public contracts of increasing complexity. For example, in the US public procurement policies since the 1940s have viewed bundling as an obstacle to the entry of small and medium enterprises into the federal market, while the EU policies have encouraged the break-up of consolidated contracts to provide such firms with sub-contracting opportunities (Kidalov and Snider, 2011, pp. 14 - 16). Rather than bundling, public procurement policies have suggested collaborative tendering or aggregation, where public sector procurers are encouraged to join together in their sourcing requirements to increase leverage and produce cost savings using collaborations such as purchasing consortia, nationally agreed contracts or collaboration on a regional or functional basis (Loader, 2010, p. 43). Universities have been encouraged to design larger and shared contracts to obtain better value than with individual arrangements (Comptroller and Auditor General, 1996, p. 8).

Traditionally, due to EU regulations requirements for many contracts to limit the period to four years, strategic partnering contracts were used solely for private sector facilities management contracts (Ventovuori and Lehtonen, 2006, p. 84). These contracts were bundled and long-term arrangements. Therefore, while private sector suppliers had developed management capabilities to deliver such arrangements, public sector agencies delayed in benefiting from such contracts. More recently, and particularly with PPPs, bundling and longer contracts have become common. Public sector outsourcing of facilities management may now be done by a single contract for each service, a bundled contract for a range of services, or a public private partnership where a strategic alliance is formed through a competitive process demonstrating substantial risk transfer to the private party, sound project management, affordability, and value for money (Anacarani and Capaldo, 2005, pp. 234 - 235). In the EU, the public private partnership contract (PPP) is characterised by (i) a long duration cooperative relationship between the public and private for a planned project, (ii) an

arrangement of public and private funding, (iii) the private partner focussing largely on the project implementation role while the public partner defines the objectives (public interest, service quality, pricing policy) and takes responsibility for monitoring compliance with these objectives, (iv) risks are distributed between the parties according to the respective ability of the parties to assess, control, and cope with this risk (see Commission of the European Communities, 2004, p. 3). Franchising contracts, such as for cable TV in the US or Rail Franchising in the UK, are typically 15 years in length and give government means of sanctions such as fines for breaches in regulations or termination for serious service failures (Dalen, Moen, and Riis, 2005, p.270). It is evident that the role of public procurement has significantly extended beyond acquisition to include the administration of complex procedures and contracts over extended periods.

In summary, the development of public procurement with its increased use of competitive tendering and more complex longer contracts has resulted in challenges for public procurement managers with responsibility for the *ex post* management of such contracts. These are now discussed.

2.1.2 Management Challenges

The *ex post* management challenges of public contracts arise in the context of the regulatory procurement framework, the design and implementation of the contract, and the management of contract relationship. These are discussed in turn.

Public tender processes affect *ex post* contract management. Some see the process as a procurement decision. Through competitive tendering the lowest-price tender wins the right to supply for the duration of the contract term (Domberger and Jensen, 1997, p. 68). However, deciding the most appropriate contract arrangements is more complex. An appropriate public procurement governance model entails assessing the consumer sensitivity of the service, surveying the market for the availability of suitable suppliers, and estimating the costs of having to switch suppliers in the event of breach of contract (Padovani and Young, 2008, p. 218). It is argued that competitive tendering procedures give rise to armslength relationships which limit the ability of buyers and sellers to forecast the risks and eventualities in the contract (Erridge and McIlroy, 2002, p. 56). Frequent market testing by

public tenders is perceived by suppliers as an inhibitor to collaborative partnerships, a critical inhibiter (Leiringer *et al*, 2009, p. 275). Therefore a key challenge for public procurement managers is to have sufficient competencies to adopt a relational approach with suppliers during the pre-tender period (McKevitt *et al*, 2012, p. 335), and the above examples suggest that contract outcomes do not realise all the potential benefits of the public tender process and contract design.

Studies suggest that there exists a lack of contract design and accompanying systems design by public sector contract managers. For example, a study of thirty European air traffic authorities found that many do not adjust template contracts to their local context, preferring to rely on building trust with operators to overcome contract incompleteness (Merkert and O' Fee, 2013, p. 125). In a study of three US Federal Agencies, short-term fixed price contracts were extended into longer-term contracts with little modification (Kim and Brown, 2012, p. 688). There is also evidence of over-optimistic assumptions or inadequate approval systems that may undermine the contract regardless of its design. For example in two Australian public infrastructure projects, over-optimistic presentations to ensure the projects proceed were causal factors in cost and delivery over-runs (Love, Edwards, and Irani, 2012, p. 570). There may also be deficiencies in the supporting system. In a study of catering procurement in three Welsh hospitals, the authors' recommendations to reduce food waste go beyond improving the criteria used in food supply contracts, and suggest the creation of training and feedback mechanisms that mobilise all the actors in the food chain (Sonnino and McWilliams, 2011, p. 829). Also the public procurement management organisational structure may be complex with the responsibilities shared between individuals. It may prove difficult to control an agent operating in a public setting because multiple principals mean the absence of a homogenous group monitoring the actions of the agent, or the high cost to the principal of implementing sanctions leave the agent at a low risk of punishment for poor performance (Hansson, 2010, p. 126). The design of public contracts and the organisational supports pose challenges that become evident during the ex post management stage.

Another challenge is the management of the contract relationship. Public contracts may be procured by one manager *ex-ante*, and managed by another *ex post* who acts in the role of principal. Such public sector managers acting as principals of *ex post* contracts are likely to face particular challenges. From a public procurement perspective, the contract relationship is viewed as the management, monitoring, review, and closing down of the contract (Murray,

2009, p. 200). While this may originate from a public policy sense of providing transparency and value, it is in some tension with the stated policy aims of relying on the market for innovative solutions. A number of studies find that public procurement managers acting in the role of principal may prefer an adversarial approach or miss the opportunities of a closer relationship with suppliers. For example, in a study of UK local authority contracts, public sector managers are required by tax payers to demonstrate transparency through a rigid management style, maintaining a formal adversarial contract relationship (Darwin, Duberley and Johnson, 2000, p. 53). In a survey of UK local authorities a significant minority of procurement officers professed having arm's length or adversarial relationships with suppliers (Loader, 2010, p. 47). Adversarial relationships may be due less to a preferred position and more to insufficient competencies regarding relationships. Some research suggests potential improvements for public procurement manager capabilities. For example, in a UK study of managers involved in the contracting out of hospital services, it emerged that personal relationship, personal charisma, and interpersonal skills are required to bridge contractual conflicts (Cooke, 2006, p. 274). A study of three significant UK public contracts with negative outcomes suggests that public procurement professionals need to address the more strategic issues particularly the ex post management (Caldwell et al, 2005, p. 249). Finally, it is worth remembering that the management of the contract relationship is a challenge common to both private and public contracts. Although perfunctory performance to the letter of the contract is enforceable, consummate performance is not, and optimum outcomes depend on the parties being happy to perform to the spirit of the contract (Hart and Moore, 2008, p. 3). Indeed, private sector considerations of outsourcing particularly stress the benefits of managing the contract relationship. While mutual commitment seems fundamentally to be built on a fair market exchange (Sia, Koh and Tan, p. 431), contract relationships which become partnerships are viewed to offer the highest benefits to both parties (Gottschalk and Solli-Sæther, 2006, p. 210) and the ability to create strategic alliances is seen to give competitive advantage to the firm (Zineldin and Bredenlöw, 2003, p. 456). However, there are also risks associated with such close contracting relationships. It is noted that while pursuing the economies gained from cooperative buyer-supplier relationships, the parties remain competitors for profit, and there is a need to actively manage the relative power dependence between buyer and supplier (Leavy, 1994a, pp. 50 - 51). Indeed, some sources recommend a portfolio approach to closeness of relationships with suppliers depending on the criticality of the service supplied (Olsen and Ellram, 1997, pp. 106 – 107,

Nellore and Söderquist, 2000, p. 249, Ventovuori and Lehtonen, 2006, p. 84). It is also noted that for more critical and knowledge-intensive contract relationships, the more important are the management competences (Hätönen and Eriksson, 2009, p. 144). From consideration of public and private contract relationships, it is clear that to secure optimum outcomes the public procurement manager is required look beyond performance monitoring, to effectively manage the contract relationship, and to ensure the supplier is motivated to fulfil the spirit of the contract.

That the procurement manager is increasingly required to be actively involved in the ex post management of the contract, is pointed out by a number of sources. For example the role of the purchasing manager in running contracts is stated to be crucial to the provision of high quality, cost-effective public services (Lyne, 1996, p. 4). Indeed, public sector management is now required to demonstrate the twin requirements of economic analysis and leadership capabilities to manage the cooperative relationships crucial to effective contracting (Kakabadse and Kakabadse, 2000, p. 670). The demands of this expanded role are increased by pressures to perform with fewer resources. As Lawther and Martin (2005, p. 214) summarise, the changing role for public procurement officers now includes positively enabling programme managers and contractors, working in new contracting areas such as services, information technology, and knowledge development, and using partnerships to obtain external expertise in these contracting efforts, all in the context of a decreasing workforce. The required competencies of the purchasing manager extend to a wider range, including skills in organisational politics. Public procurement professionals now require commercial, pragmatic, political, and person-centred management competencies (McKevitt et al, 2012, pp. 347-348).

In summary, the above discussion highlights the development of public procurement and public contracts, and the increasing demands on the procurement manager to manage the *ex post* contract, including the contract relationship. Implementation and management actions in relation to the contract stem from the contract terms itself. Prior to reviewing approaches to the *ex post* management of contracts, it is necessary to consider the literature concerning the contract itself, and the theories underpinning these contracts. These are discussed in the next sections.

2.2 CONTRACT THEORIES

The written contract concerning the exchange and the commitments to fulfil future obligations is linked to the contract relationship between the parties. Formal contracts between organisations represent promises or obligations to perform particular actions in the future, specifying responsibilities, monitoring, penalties, and the outcomes to be delivered, and usually complement inter-organisational relationships based on cooperation (Poppo and Zenger, 2002, p. 708). Contracts therefore look towards the future and entail commitments to long-term business objectives and relationships which are strategic for the parties. As business strategy implicates economics, contracts, and organisation theory (Williamson, 1999, p. 1087), a literature review should consider contracts from an economics and organisational theory perspective. Indeed, proponents of economics perspectives of contracts refer to organisational theory which emphasises socialization practices to harmonise values and goals among the parties as a form of performance management control (Eisenhardt, 1985, p. 138). Since within organisations all contracts are fundamentally psychological (Rousseau, 1995, p. 6), socialisation practices in contract relationships may be best understood through the psychological contract. The two perspectives of economics and leadership to manage effective contract relationships (Kakabadse and Kakabadse, 2000, p. 670) are therefore economics and the psychological contract.

The next sections discuss the economic and psychological contract perspectives.

2.2.1 Economic Perspectives

Economics focus on the transaction and the obligations of the parties to facilitate this. Williamson describes contracting as the efforts of the immediate parties to a transaction to align incentives and form governance structures to mitigate contractual hazards and realise mutual advantage from the voluntary exchange (Williamson, 2002, p. 172). Others highlight the contract specification of obligations to perform future actions, and that successful outcomes depend on ex ante monitoring and controls written into the contract terms, for example those clauses relating to the asset ownership and contestability (Domberger and Jensen, 1997, pp. 69 – 70, Walls, 2005, p. 214). Therefore contracts may have ex ante mechanisms requiring parties to undertake transaction-specific investments and credible

commitments, or *ex post* mechanisms which provide parties with rights and sanctions over others in the event of non-performance of other pre-specified situations (Ahimbisibwe, Muhwezi, and Nangoli, 2012, p. 440).

Williamson (1979, pp. 236 – 238 and pp. 248 - 251) outlines three transaction cost economics contract models: classical, neoclassical, and relational. Classical contracting attempts to make present all the intended future outcomes pertaining to the supply of future goods or services, where the identity of the parties are assumed irrelevant, and contingencies, where formal terms are delimited, informal terms contested, and remedies are narrowly prescribed. It assumes that market alternatives and claims litigation are available at little cost. For example, if a supplier failed to deliver some relatively inexpensive equipment, the buyer may easily choose another supplier or easily sue the original supplier in a court of law. Neoclassical contracting assumes long term contracts executed in uncertain conditions, occasional transactions with specialised investments which have much lower opportunity costs in alternative uses, and their transfer to another supplier would pose asset valuation difficulties. For example, if government tendered and awarded a contract to supply and manage a prison, the supplier would likely provide a significant and long-term investment which government would wish to remain until the end of the contract. Indeed, there would likely be few suppliers in the market available to provide such an investment and service Therefore, whatever the difficulties arising from an incomplete contract, both parties have strong incentives to see the contract through to completion. From a theoretical perspective, such contracts are incomplete, market relief is unsatisfactory, and litigation has transactionrupturing features, all of which parties will endeavour to avoid. Therefore, in neoclassical contracting third party arbitration to resolve disputes and evaluate performance is employed. Relational contracting assumes recurring idiosyncratic transactions involving specialised assets, no obvious scale economies to be realised by inter-firm trading, and any reliance on market governance to be hazardous. Each party to the contract appropriates a separate profit stream and agrees to continue to supply or purchase. Adaptability to market changes is expressly provided for by contract, for example price or quantity escalation clauses, or by follow-on agreements. For example, a buyer may agree consultancy services whereby the supplier and buyer become reliant on each other, and therefore agree mechanisms to adjust the contract from time to time. In summary, the economic perspective on contracts describes the classical, neoclassical, and relational models.

It can be argued that the public procurement policy of frequent competitive tendering as a mechanism for introducing contestability into contracts (Domberger and Jensen, 1997, p. 69) fundamentally presumes readily available market providers, and indeed, some degree of market relief in the event of a dispute. In addition, EU public procurement remedies lean more towards litigation than arbitration (Commission of the European Communities, 2007, p. L335/34). Indeed, some sources argue that public arbitration is simply one specialised type of legal setting for settlement of disputes (Ashenfelter and Bloom, 1984, p. 111). Therefore, given the assumptions of available market relief and viable recourse to litigation, it is possible to categorise many public contracts into the classical model.

In contrast to this classical contract model of public contracts, the literature also describes public contracts as real world contracts. Walls (2005, p. 208) argues that the literature on transaction cost economics ignores three important factors making real world contracts incomplete: it is difficult for parties to plan ahead for all contingencies, parties have difficulties negotiating over such plans, and even with viable planning and negotiating the agreed outcomes may not be verifiable to a third party and may be unenforceable in a court of law. Therefore while the procurement problem is assumed to be one of *ex ante* asymmetric information coupled with moral hazard, where the supplier has additional information to the buyer, observations suggest that the problem is actually about *ex post* adaption (Bajari and Tadelis, 2001, p. 387). Due to the contract incompleteness, as time passes and uncertainties are resolved, the parties re-negotiate terms which results in some sharing of prior and non-contractible relation-specific investments between the parties (Hart and Moore, 2008, p. 2). However, this description fits well the Williamson neoclassical contract model.

Frequent competitive tendering makes it difficult to categorise public contracts as Williamson's relational contracting. Such relational contracting assumes recurring idiosyncratic transactions, extensively specialised assets, and the preferred avoidance of market governance. It is difficult to reconcile the avoidance of market governance with the frequent competitive tenders required by public procurement. However sources note the existence of behavioural norms which emerge as a result of relational contracting between parties (see Austen-Baker, 2009, Jensen and Stonecash, 2004, Paulin, Perrien, and Ferguson, 1997, and McNeil, 1974). Indeed, Macneil (1974, p. 785) observes that transactions with future obligational effect can only occur in some kind of social matrix providing a source of

obligation. Therefore, within the economic literature there is an acknowledgement of some reciprocal social obligations which accompany the formal contract.

In summary, while competitive tendering and the assumption of available market relief categorise public contracts as classical contracts, research suggests that public contracts may also be categorised as real world or neoclassical contracts, where the parties seek to overcome contract incompleteness through some re-negotiation of the terms and sharing of information. The economic reasons for doing so are to preserve the value of the parties' 'specialised investments which have much lower opportunity costs in alternative uses' (Williamson, 1979, p. 249) or to 'leverage the potential benefits of the parties' *ex ante* relation-specific investments' (Hart and Moore, 2008, p. 2). While this economic perspective gives some insight into why parties address *ex post* difficulties such as contract incompleteness, it does not explain how they manage such difficulties. It also makes no reference 'socialization practices to harmonise values and goals among the parties' (Eisenhardt, 1985, p. 138) which must undoubtedly play an important part in the renegotiation of the contract terms. To understand more fully how parties continue and negotiate such contract relationships, some examination of the psychological contract is now required and this is discussed in the next section.

2.2.2 Psychological Contract Perspectives

The psychological contract is the belief that a promise, that is a communication of future intent, is accompanied by a perceived obligation (Morrison and Robinson, 1997, p. 228) in the context of an exchange agreement between the employing firm and its agents (Rousseau, 2004, p. 121). Unlike written contracts or implied contracts based on the party's actions established by a court of law, the psychological contract is inherently perceptual and based on one party's understanding of the contract which may not be shared by the other party (Robinson, 1996, p. 575). However, psychological contracts regulate behaviour though a variety of mechanisms including forming commitment to accepted goals of behaviour, the promise-keeper's self-image, concern for potential losses by the other contract party, and the concern for reputation (Rousseau, 1995, pp. 24 – 26). Therefore, while the psychological contract is an important influence on the behaviours of parties to a written contract, these influences are based on beliefs and perceptions which are likely to be fragile. This section

discusses the origins of the psychological contract, some categories identified in the literature, and its relevance to inter-firm contracts.

Cullinane and Dundon (2006, p. 115) propose that the antecedent of psychological contract literature is social exchange theory where social relationships have unspecified obligations and there is the unequal distribution of power between the parties. For example, Bottom *et al* (2006, p. 33) highlight that following social exchange theory maintains agents receiving a guaranteed fixed wage will feel an obligation to repay the debt and provide a high effort to discharge this obligation. Other sources emphasise less the distribution of power, and highlight the expected benefits of the relationship. For example, Robinson, Kraatz and Rousseau (1994, p. 138) view social exchange as cooperation between two or more individuals for mutual benefit, and this cooperation permeates organisational activities where benefits are expected to result from past or anticipated contributions. Therefore, in addition to any written contract obligations, there will be a psychological contract where parties will perform actions to meet perceived social obligations for reasons of economic power or expected benefits from the relationship.

There are a number of categorisations of the psychological contract and these are usually discussed in the context of the employer-employee relationship. For example, O' Neill, Krivokapic-Skoko and Dowell (2010, p. 7) identify two. The first addresses the concept of mutual obligations explicitly communicated through formal contracts or implicitly through expectations, and the second, adopted by most writers since the 1990s, focuses on the psychological contract as formulated only in the mind of the employee. Most of the literature takes this individual approach. Within the individually held psychological contract, two types of contract are distinguished. The first is the transactional psychological contract which relates to brief specific monetizable exchanges, and second is the relational psychological contract which relate to open-ended and less specific agreements (Robinson, Kraatz and Rousseau, 1994, p. 138). De Cuyper et al (2008, p. 544) suggest that all psychological contracts are likely to have a strong economic focus with transactional psychological contracts based on performance and monetizable exchange, while the relational psychological contracts include both monetizable and non-monetizable exchanges aimed at maintaining long-term employment relationships. In addition to these categories, there is also a more recently observed hybrid or balanced psychological contract where open-ended commitments are combined with performance demands and flexibility towards economic conditions,

sharing risks between parties (Rousseau, 2004, pp. 122 - 123). Much of the research into the psychological contract concerns breaches or lack of fulfilment of the perceived obligations by the employer. Robinson and Rousseau (1994, p. 254) find that psychological contracts are frequently violated, and such violations are negatively associated with satisfaction, trust, and intention to remain with the organisation. Robinson (1996, p. 592) finds that the psychological contract breach may be enduring over long periods of time and impacts three forms of employee contribution: performance, civic virtue behaviour, and intentions to remain with the organisation. Robinson and Morrison (2000, p. 541) suggest a form of mirroring behaviours may emerge where the organisation is unwilling to fulfil promises because of poor performance and the employees reduce performance in response to a perceived breach, and each party to the contract maintains its side of the bargain only to the extent that the other party does. Interestingly, this performance deficit is addressed by management efforts to ensure the individual's perceptions match those of the contract between the parties, establishing the explicitly communicated mutual obligations identified by O' Neill, Krivokapic-Skoko and Dowell (2010).

Rousseau (2004, p. 123) suggests that since it is the individual's beliefs that a common understanding binds the parties to the course of action, the agreement between the parties on what each owes the other is critical to the relationship success, and managers need to initiate discussions that allow parties share perspectives and create mutuality in the psychological contract. While the focus of the psychological contract literature is often the individual's beliefs regarding obligations (Rousseau and Tijoriwala, 1998, p. 680), a mutual psychological contract can exist where the parties hold the same beliefs regarding their obligations to one another (Rousseau, 2001, p. 534). Freese and Schalk (2008, p. 270) suggest that while the unilateral view with its individual perceptions is methodologically easier to measure, the bilateral view of the earlier literature is useful in clarifying differences in perspectives between employees and supervisors which could resolve organisational conflicts. Indeed, the foremost problem underlying the psychological contract is how to create agreement between parties to the exchange, and this requires effort towards promoting mutuality and contract fulfilment for parties (Rousseau, 2001, p. 538).

While most discussed in the context of the employees in organisations, the literature also demonstrates application of the psychological contract to the principal agent relationship in other types of contracts. For example, Lusch and Brown (1996, p. 32) find in an empirical

study that when wholesaler-distributers and suppliers have a high need for each other, there is greater reliance on the normative contract and this increases performance of the wholesaler. Hill et al (2009, p. 283) argue that it is reasonable to extend evaluation of the psychological contract theory to the inter-organisational level of the buyer-supplier relationship, since the sentiment of the individual in the boundary-spanning role is expected to mirror that of the organisation's members collectively. Kingshott (2006, pp. 727 - 734) posits that given the highly interactive nature within the supplier-buyer relationships, psychological contracts will exist between these exchange partners based on promises of future intent inferred implicitly through signalling, initiating, and disclosing behaviours which signify relational longevity. He finds that while failure to perform some of the inter-firm psychological contract promises is inevitable, not all contract violations are inevitable and the development of the psychological contract leads to better relational bonds. Llewllyn (2001, p. 224) uses the psychological contract in an exploratory study of internal service relationships in a telecommunications company and finds that expectations of reciprocity support the quality of internal services between departments. Sabherwal (1999, p. 81) highlights that resolving issues in inter-organizational relationships requires attention to the formal written contract as well as the psychological unwritten one. Heiskanen et al (2008, 270) note that a formal written contract and a psychological contract may support outsourcing governance. Koh, Soon and Straub (2004, p. 359) highlight that psychological contract theory offers a highly relevant and sound theoretical lens for studying contract management because of its reliance on mutual rather than one-sided obligations between the parties, the psychological rather than the legal obligations, and its emphasis on the individual rather than the inter-organizational level of analysis. Since inter-organisational agreements are vested in individual personal relationships (Ring and Van de Ven, 1994, p. 103), it is possible to view the contractual relationship between the principal and agent as a psychological contract.

This dissertation's central proposition argues that the management of real world incomplete contracts during the *ex post* implementation stage requires additional theoretical perspectives to those explained by the economic perspective. The psychological contract where openended commitments are combined with performance demands and flexibility towards economic conditions, sharing risks between parties (Rousseau, 2004, pp. 122 - 123), may form a model for understanding the actions of the principal and the agent who endeavour to optimise *ex post* outcomes for incomplete written contracts.

Table 2.1 - Forms of Contract and Characteristics

Contract Form	Theoretical Perspective	Characteristics	Source
Written Contract	Transaction Costs Economics – Classical Contract	Complete shorter term contracts, formal rules, available market relief, and disputes relsoved through litigation	Domberger & Jensen (1997) Williamson (1979)
	Transaction Costs Economics – Neoclassical Contracts	Incomplete longer term and flexible contracts, commitment to complete contract, and disputes resolved through arbitration	Walls (2005) Williamson (1979)
Psychological Contract	Social Exchange Theory	Performance based on the individual's perception of obligations in anticipation of reciprocal contributions from the other party.	Kingshott (2006) Koh, Soon & Straub (2004) Rousseau (2001) Sabherwal (1999) Lusch & Brown (1996)

2.2.3 Summary of Contract Perspectives

In summary, the literature on contracts describes three models, two written contract models based on the economic transaction, and one psychological contract relying on the social exchange. These are summarised in Table 2.1. Public contracts frequently fit a classical contract model, with the emphasis on available market relief for new or failing contracts, legal rules having precedence over oral arrangements, and litigation in the event of disputes. Public contracts may also be described as real world contracts which fit the neoclassical model. These are frequently longer term contracts with more flexible workings that acknowledge incompleteness and accept arbitration in order to preserve the contract

relationship and complete the contract goals. Finally, in parallel with the two economic models, there is a psychological contract which relies on beliefs about the required behaviours to fulfil the social obligation due to the other party. Here, parties will endeavour to repay perceived obligations in anticipation of past or future reciprocal contributions.

Having identified these main contract models, it is necessary to review the literature in relation to the management of such contracts during the implementation period after the written contract is signed. The next sections discuss the *ex post* management approaches to influence performance in the context of the written and psychological contracts.

2.3 MANAGEMENT APPROACHES

The ex post management approaches to public contracts may be viewed from a public administration and a contracting perspective. In public administration, the management of agencies is frequently viewed as a matter of procedural techniques for monitoring those with decision-making powers (Croley, 1998, p. 167). For example, politicians impose administrative procedures on agencies as constraints to improve control by ensuring consultation prior to decision thereby reducing uncertainty surrounding bureaucratic performance and outcomes (Potoski, 1999, p. 625). These administrative procedures result in ex post mechanisms similar to that of contract management. For example, McCubbins, Noll, and Weingast (1987, p. 244) describe the political control of agencies as a principal-agent problem requiring two types of controls: administrative procedures and oversight comprising monitoring, rewarding, and punishing bureaucratic behaviour. In relation to contract management, Williamson (1999, p. 1090) notes that it should be farsighted whereby parties recognise hazards and devise safeguards to realise mutual gain such as information disclosure, discussion, and dispute settlement which permit the parties to work through their differences and get on with the job. Therefore formal ex post management mechanisms recorded in the written contact will include agreed information systems and means of resolving disputes. The literature concerning the management of contracts is agency theory (Eisenhardt, 1985, p. 136).

In addition to these formal mechanisms of *ex post* management, there are also informal mechanisms which rely on the relationship between the contracting parties. For example,

Coase (2006, p. 206) finds that long term supply contracts between independent firms are partly governed by the informal relations between the parties. The management of the informal relationships rely on mechanisms which influence the perceptions of a party in relation to their expectations and obligations within the contract relationship. These influencing mechanisms are signals which are discussed in the literatures of economics and the psychological contract. For example, in information economics, Spence (1973, p. 654) proposes that spending interpersonal time and demonstrating willingness to spend interpersonal time with the other party functions as a signal communicating commitment, and greatly assists resolving disputes. In the psychological contract literature, signals are observed spoken and unspoken communications of future intentions, from administrative and organisational practices, which individuals interpret as promised commitments and make judgements to fulfil obligations which arise from these (Rousseau, 1995, pp. 36 – 40).

In summary, the *ex post* management of contacts may be reviewed from the literatures of agency theory in relation to the written contract mechanisms, and the literatures of information economics and the psychological contract in relation to influencing signal mechanisms of the contract relationship. The next sections review first agency theory, and then economic and psychological contract signals.

2.3.1 Agency Theory Approaches

The theory underpinning the management of public tendering, the written contract, incentives, and the contract relationship is widely held to be agency theory (Sappington and Stiglitz, 1987, p. 569, Eisenhardt, 1985, p. 136, Eisenhardt, 1989, p. 65, Moe, 1984, p. 754 and Logan, 2000, p. 22). The agency relationship arises between two parties when one, the agent, acts for, on behalf of, or as a representative for the other, the principal, in the particular domain of decision problems (Ross, 1973, p. 134). The principal agent relationship is examined in a number of literatures including sociology, law, management, political science (Shapiro, 2005, p. 265 - 274), legal (Seavey, 1920, p. 860), political (Moe, 1984, p. 766), and public regulatory behaviour (Mitnick, 1975, p. 27). Well known agency problems are adverse selection of a low quality agent and the moral hazard of poor performance (Moe, 1984, pp. 754 – 755). The adverse selection of an inappropriate agent is the agency problem relating to the *ex-ante* contract, especially the competitive tender process. The *ex post*

management issue concerns the agency problem of how to manage poor performance. This section discusses the development of agency theory, its assumptions, and its proposals for *ex post* contract management.

Donaldson (1990, p. 370) maintains that both agency theory and transaction costs economics emerged from organisational economics to become theoretical paradigms for management. The main aspects of this paradigm are that efficiencies of economic organisation may link to human, transaction, and technology issues. Of particular importance are the human factors of bounded rationality, opportunism, and atmosphere (non-pecuniary benefits), and the transactional factors of uncertainty, small numbers, and information impactedness (Williamson, 1973, pp. 316 – 318). Eisenhardt (1989, pp. 59) takes a narrower view and sees the roots of agency theory in information economics. Information economics holds that market information about other parties must be acquired through expenditure on information gathering or by making inferences based on their behaviour (Stiglitz, 2002, p. 472). Since limited information may result in good projects being rejected and bad projects being accepted, information asymmetry is a problem within economic organisational design (Stiglitz, 2004, p. 19). Therefore agency theory literature is much concerned about the information asymmetry between the parties, and the view that relevant information for contract arrangements may be obtained provided a sufficient price is paid. Eisenhardt (1989, pp. 59 - 64) identifies two lines of research: the principal-agent which is concerned with the general theory of the principal-agent relationship, which may be applied to employeremployee, lawyer-client, or buyer-supplier relationships, and the positivist agency theory which focuses on the special case of the principal-agent relationship between owners and managers of large corporations, and identifies goal conflict situations, contract alternatives, and governance mechanisms comprising information systems or outcome based incentives to align managerial behaviours with the owner preferences. Therefore, positivist agency theory offers useful recommendations regarding governance of contracts during the ex post stage.

Agency theory is underpinned by a number of organisational, human, and informational assumptions. The organizational assumptions are held to be goal conflict among participants, efficiency as an effectiveness criterion, and information asymmetry between principal and agent (Eisenhardt, 1989, pp. 58 - 59). The human assumptions of agency theory are self-interest, bounded rationality, and risk aversion (Eisenhardt, 1989, pp. 58 - 59). The informational assumptions centre on the fact is that it is a purchasable commodity

(Eisenhardt, 1989, pp. 58 - 59). Therefore Jensen and Meckling (1976, p. 308) note that in most agency relationships, the principal incurs positive monitoring costs as a result of the agent not making optimal decisions from the principal's viewpoint. The reduction to a purchasable commodity is challenged, at least in part, by the so-called policing paradox (Mitnick, 1975, p. 27) due to the observer's lack of knowledge about the principal and agent goal states and information levels. Indeed, Moe (1984, p. 754) notes the unobservability of the information, beliefs, and values on which the decisions of others are based. It is this unobservability that challenges the information assumption. Hodgson (2004, p. 408 - 412) argues that the agent's understanding of the principal's intentions will never be identical to that of the principal, and sometimes principals cannot monitor agents even when information on behaviour is costless, because they do not have the necessary knowledge about production processes or outcomes. Therefore, agency theory assumes that parties to organised endeavours have goal conflict, self-interest, and information asymmetry. It also assumes that significant relevant information may be purchased to manage these endeavours.

Agency theory proposes two approaches that a principal can take to manage the issues of goal conflict, self-interest, and information asymmetry within the working of the contract. The first is an information system to facilitate the measurement of the agent's performance in terms of behavioural inputs or contract outcomes, and the second is a set of contract incentives or penalties that induce the agent to accept the contract outcome risks and work to secure the outcomes desired by the principal (Eisenhardt, 1985, pp. 135 - 139). Therefore the initial work of the principal is to carefully specify ex ante contract terms which contain the most appropriate incentives and information systems to induce the agent to perform and to monitor the behaviours or outcomes to ensure the contract objectives will be achieved. For example, in public contracts, it is held that frequent tendering is a strong incentive as it imposes 'contestability' into publicly funded services (Domberger and Jensen, 1997, p. 69). Or in the case of a building contract, the client may incentivise the inputs by paying on a 'time and materials' basis, or the outputs by paying a fixed price for the project completion. In fixed-price contracts, the buyer offers the supplier a pre-specified price for completing the project, while a cost-plus contract does not specify a price but rather reimburses the supplier for costs plus a stipulated fee (Bajari and Tadelis, 2001, p. 388). These measures require appropriate information systems. As a minimum, the input approach requires the client to monitor the hours and materials spent. Therefore, cost-plus contracts offer lower incentive to

the supplier, allocate more risk to the buyer, are flexible and cheap to change, incentivise quality, and result in a less adversarial relationship (Bajari and Tadelis, 2001, pp. 388 - 389). This approach assumes the agent and principal maintain a collaborative approach during the contract. The output contract requires the client to monitor the quality. Fixed-price contracts have higher design costs for the buyer, are less incentivising of quality, create strong cost-reducing incentives for the supplier through *ex ante* competition, but leave the buyer at risk of losing these cost savings when an incomplete contract leads to re-negotiations arising from the suppliers private knowledge of the contract costs (Bajari and Tadelis, 2001, p. 399). All such monitoring entails some cost to the principal (Jensen and Meckling, 1976, p. 308) and has associated risks. For example, since quality is more difficult to measure than costs, cost-reduction incentives may overwhelm quality improvements and lead to shading by the contractor (Jensen and Stonecash, 2004, pp. 3 - 10).

Table 2.2 - Agency Theory Management Approach to the Written Contract

Theoretical Perspective	Ex post Mechanisms	Source
Agency Theory	Information Systems	Domberger & Jensen (1997) Sappington & Stiglitz (1987) Eisenhardt (1985)
	Incentives & Penalties	Domberger & Jensen (1997) Sappington & Stiglitz (1987) Eisenhardt (1985)

The *ex post* contract management mechanisms derived from agency theory are shown in Table 2.2. In summary, while *ex ante* control mechanisms are requirements and incentives, such as contract agreements applied to prevent agency problems, *ex post* requirements and incentives are applied after the agreement is reached, such as monitoring, reporting, audits,

and investigation by the principal or a third party incentivised to observe and influence the agent (Hansson, 2010, p. 125).

The ex post management mechanisms offered by agency theory have strengths and limitations. For example, agency theory stresses the use of information systems for performance measurement and incentives to motivate the acceptance of risk (Eisenhardt, 1988, p. 490). These aspects draw attention to the importance of the principal specifying in the written contract sufficient incentives and information systems as can be envisaged at the time of the contract design. However, unless the required measures are specified ex-ante in the written contract, they will not be available as agreed ex post mechanisms. Also, agency theory does not address power issues within the relationship. For example while close joint working suggests a collaboration of equals and mutual interdependence, the principal must have sufficient power in the relationship to counteract that of the agent (Loader, 2010, p. 44). However, agency theory seems to reflect public procurement management models for the allocation of risks and rewards (for example, see the requirements for EU public works and concession contracts in Commission of the European Communities, 2000, p. 3). It must be borne in mind that the central procurement problem is not that the supplier knows more than the buyer at the beginning of the contract, but rather that both the buyer and the supplier share uncertainty after the contract is signed due to design failures, unanticipated conditions, and changes in regulatory requirements (Tadelis, 2012, p. 297). Dispute settlement (Williamson, 1999, p. 1090) is also absent as an agency theory mechanism. The specified incentives and information systems of agency theory are therefore not complete ex post management mechanisms.

In summary, while the agency theory mechanisms of incentives and information systems address important *ex post* management challenges of the written contract (Eisenhardt, 1985), complex contracts are unavoidably incomplete (Williamson, 1999, p. 1089) and subject to unforeseen contingencies (Walls, 2005, p. 208). Unforeseen contingencies are those challenges to the contract goals for which no agreed remedies are specified in the written contract. They represent crises for the principal and agent who no longer have an agreed basis to continue working together to return the benefits of the contract to their respective organisations. As they are an unavoidable challenge to *ex post* contract management, some

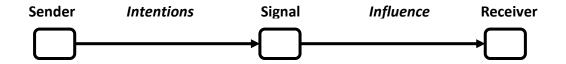
alternative mechanisms, outside those specified in the written contract, must be sought and used by the principal and agent.

Sources maintain that successful contracting also depends on the preparedness of the parties to realise mutual gain despite difficulties (Williamson, 1999, p. 1090) and some informal means of governance arising from the relationship between the contract parties (Coase, 2006, p. 206). Such preparedness and informal means of governance rely on the expectations and perceived obligations by the parties to the contract. The mechanisms which influence expectations and perceived obligations are signals (Rousseau, 1995, pp. 36 – 40, and Spence, 1973, p. 651). To consider the influencing mechanisms available to the principal in the management of the *ex post* contract relationship, the next sections consider economic and psychological contract signals.

2.3.2 Signals Theory Approaches

Signals may be understood using Shannon's theory of communication model (Shannon, 1948, p. 381) from which a more general model may be developed. Shannon identifies the fundamental problem of communication as reproducing at one point a message selected at another point, and he proposes a general model that comprises an information source sending a message, a transmitter transforming the message into a signal, which is assumed to import noise, with an inverse process undertaken by a receiver, which then passes the message and noise to a destination or person intended to receive the message (Shannon, 1948, pp. 380 -381). Eliminating the transmitter, receiver, and noise from Shannon's model corresponds to a practical understanding (Warner, 2007, p. 318), and leaves the three essential terms of communication theory: the sender, the receiver and the information or communication that relates them (Stichweh, 2000, p. 10). This approach reflects the situation of a principal seeking to influence an agent. The signalling view of communication is important because it broadens communication to include actions as well as words. The expenditure of the sender's time in social interaction (Spence, 1973, pp. 651 - 652) or spoken and unspoken communications of intentions (Rousseau, 1995, pp. 30 - 40) are signals which may influence the decisions of the receiver. Therefore the sender's demonstrations or actions are means of communication which, in addition to spoken and written communication, are significant in influencing the receiver and have application as an *ex post* contract management mechanism.

Figure 2.1 – Signals Communication Model (Source: Author, based on Warner, Stichweh, 2000, and Shannon, 1948)



A signals model of communication between a sender and receiver may now be developed (see Figure 2.1). This has application for communications between the principal as the sender and the agent as the receiver. While the principal may discuss with the agent the revised requirements, he also needs to influence the agent's perception towards a new mental model of the contract and a perceived obligation to fulfil the new requirements. Signals, therefore, are important mechanisms by which the sender influences interpretation and reinforces roles within a contractual relationship. The principal, through words and actions, sends a signal to the agent. These observed words and actions are interpreted by the agent as promises to continue the partnership and influence the agent's sense of obligation. The literature offers examples of signals used in the context of influence within relationships. For example, professions such as auditors use vagueness in labels and policy statements because they represent explicit signals of the profession's usefulness, assist them in power relations with management and regulators, and are interpretable as a strategic resource for the audit profession (Lee, 1994, p. 37 - 43). Also, in the human resources management context, it is recognised that signals allow understanding by managers of those mechanisms that create psychological contracts (Suazo, Martínez and Sandoval, 2009, p. 163). The signals approach is now discussed from the economic and the psychological contract perspectives.

2.3.2.1 Economic Perspective of Signals

Information economics holds that human actions convey information leading people to alter behaviours and changing how markets function (Stiglitz, 2002, p. 473). Signals are visible actions intended to communicate information from those with more to those with less (Spence, 2002, p. 434) to which rational informed receivers respond positively if the signal expenditures are observable, even if not perfectly so (Milgrom and Roberts, 1986, p. 797).

There are a number of assumptions underpinning such actions that influence behaviours. For example, as individuals have a self-interested incentive to present themselves as more able than they actually are, only costly actions convey information (Stiglitz, 2002, p. 473). In economic and social interaction, signals entail the expenditure of time (Spence, 1973, pp. 651 - 652). Therefore signals may be viewed as meaningful actions comprising the expenditure of human time in economic and social interaction, which can influence the observer towards new behaviours. The more non-functional or less transactional the action is, the greater it's informational content as a signal (Spence, 1973, p. 654). Because the principal's communication can reduce the agent's misinterpretation of the written contract (Hodgson, 2004, p. 409), the principal is likely to send signals to reinforce understanding of the contract requirements, and the agent is likely to be sensitive to any indications of the principal's intentions for the desired outcomes. The literature notes signals of relevance to the ex post contract management which may be sent by the principal to show his intentions for the future and influence the agent. These signals by the principal and the signal influence on the agent are shown in Tables 2.3, and from this an economics signals communication model for the principal and agent is developed. This is shown in Figure 2.2.

A principal sends signals to influence the agent's interpretation of the written contract. These are actions by the principal including demonstrations of their time spent, their resources, or their seniority of position in the relationship. The expenditure of interpersonal time is interpreted as a signal of interest which increases influence with the amount of time spent (Spence, 1973, p. 653). Influence on interpretation also derives from the communicator's resources including budgetary control, expertise, and social skills (Lawrence et al, 2005, p. 184). The influence of the signal is stronger the more senior the figure spending the time, resulting in the non-functional attendance of leadership figures as signals at events (Spence, 1973, p. 653). Therefore, a principal's signals influence the agent's interpretation of the written contract requirements. The influence of these signals relate to the observed expenditure of time sending the signal, the resources of sender, and the organisational authority of the sender. These signal influences may be labelled time, authority and resource influences respectively. Therefore the principal endeavours to influence the agent's interpretation of the written contract by demonstrating time, resource, and position through his signals. For example, the principal demonstrates interest in the agent by showing a willingness to spend interpersonal time with the agent; the principal shows that he has control of the contract budget and the necessary skills to manage the contract; and the principal proves that he is in a senior position in his organisation or has ready access to such figures in his organisation.

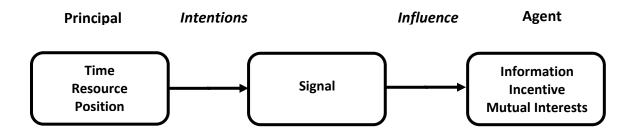
Table 2.3 – Economic Perspective of Signals

Signals from Sender (Principal)		Influence on Receiver (Agent)			
Time	Resource	Position	Information on performance	Incentive	Mutual Interests
Spence (1973)	Lawrence et al (2005)	Spence (1973)	Nikander & Eloranta (2001)	Bénabou & Tirole (2003)	Spence (1973)
Principal demonstrates willingness to spend interpersonal time with the agent.	Principal shows control of the necessary budget and skills to manage the contract.	Principal proves his senior organisational position, or his access to such figures.	Agent observes changes from informal verbal to formal written means of communication highlight concerns of the principal.	Agent observes assurances on his ability to perform the contract or positive indications for future contracts from the principal.	Agent finds principal willing to discuss contract difficulties and work towards solutions that benefit both parties.

An agent's observation of the signals provides additional information, incentives, and mutual interest in relation to the written contract, and influences interpretation of the required performance. An agent's observation of principal's signals may reinforce the written contract information. For example, problems in the management of projects are indicated by changes from verbal to more formal written communication such as writing a letter (Nikander and Eloranta, 2001, pp. 387 - 388). An agent's observation of such communication changes are information signals that the performance is unacceptable to the principal. A principal's

signals may act as incentives to the agent, complementing those of the written contract. For example, a principal sends signals to incentivise the agent's performance by reinforcing their self-confidence in their ability to complete the task, and highlighting how a good performance will improve the agent's future prospects (Bénabou and Tirole, 2003, p. 491). An agent observing demonstrations of confidence by the principal receives an incentive signal to continue through contract difficulties. An agent will view certain principal's signals as demonstrating a community of interest towards achieving the contract goals. For example, a demonstration of willingness to spend time to discuss a disagreement between parties contributes more to a resolution of a dispute than any verbal declaration (Spence, 1973, p. 654). An agent observing such a demonstration realises that both he and the principal have a mutual interest in finding a resolution to contract challenges, and preserve the expected benefits of the contract for their organisations. Therefore, signals by the principal act as influences on the agent by demonstrating information, incentives, or mutual interests. For example, the agent observes information signals comprising changes from informal verbal to formal written means of communication highlighting concerns of the principal; the agent receives incentive signals in the form of positive assurances from the principal on his ability to perform the contract and for future contracts; and the agent receives assurances on his ability to perform the contract or receives positive indications for future contracts from the principal.

Figure 2.2 – Economics Signals Communication Model (Source: Author, based on Lawrence *et al*, 2005, Bénabou and Tirole, 2003, Nikander and Eloranta, 2001, Spence, 1973)



In conclusion, the principal's signals of time spent, their resources, or their seniority of position in the relationship may be used to provide to the agent additional information, incentives, and mutual interest in relation to the written contract, and influence the agent's interpretation of the required performance. The next section reviews the psychological contract view of signals that may be used in the *ex post* management of contracts.

2.3.2.2 Psychological Contract Perspective of Signals

An alternative signals perspective is given by psychological contract theory. Rousseau (1995, pp. 36 - 39) gives the external factors contributing to psychological contracts as (a) organisational events signalling intentions for the future (including overt statements, observations, expression of policy), and (b) social constructions and social cues received from co-workers which shape how the individuals interpret the organisation's messages and provide social pressure to conform. In addition, Rousseau (1995, pp. 40 - 43) details that the receiver of such messages or signals will encode the message, that is interpret the observed actions as credible promises depending on their perceptions of the contract maker as (i) operating in a context appropriate to promise making such as communicating required performance standards, (ii) behaving in ways consistent with the commitment made, such as reinforcing the message through the compensation system, and (iii) having power, authority, or capacity to make the commitment.

Therefore, in a principal agent relationship, the principal communicates performance, reinforces the message by linking the contract payment to satisfactory performance, and displays authority as the contract maker. Therefore managers play the central role in actively shaping the worker's psychological contract in the way they reward, motivate, and signal to employees what to expect from the firm in the future, tailoring recruitment efforts to signal broader requirements, and using top-down communication on performance deliverables (Rousseau, 2004, p. 124). As mental models of contracts tend to continue until a noticeable signal conveys an interruption (Rousseau, 1995, p. 30), during the *ex post* contract stage a principal may communicate change information to the agent by sending signals which shape and change the agent's psychological contract. These signals and the influences on the agent are shown in Table 2.4, and from these a psychological contract signals communication model for the principal and agent is developed. This is shown in Figure 2.3.

Table 2.4 – Psychological Contract Perspective of Signals

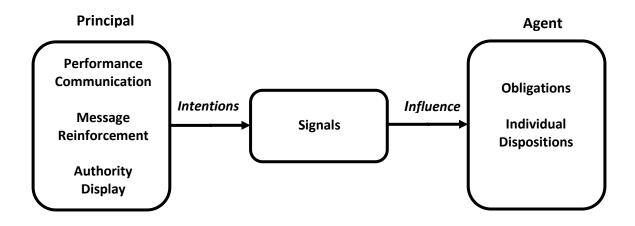
Signals from Sender (Principal)			Influence on Receiver (Agent)		
Performance Communication	Message Reinforcement	Authority Display	Individual Disposition	Obligations	
Rousseau (1995)	Rousseau (1995)	Rousseau (1995)	Suazo, Martínez & Sandoval (2009) Rousseau (1995)	Cullinane & Dundon (2006) Rousseau (1995) Robinson, Kraatz, and Rousseau (1994)	
Example	Example	Example	Example	Example	
The principal behaves as a contract maker by formally communicating the required performance standards to the agent.	The principal reinforces the contract message through the compensation system, linking performance to payments, etc.	The principal demonstrates his capacity to make contract commitment on behalf of own organisation.	The agent focuses on the information that is relevant to his interests or prospects.	The agent decides the standards of behaviour that are to fulfil his perceived obligations of the psychological contract.	

Psychological contract signals comprise organisational events and social cues which influence how individuals interpret the organisation's messages and exert social pressure to conform (Rousseau, 1995, pp. 36 – 39). Such events or social cues in the contract relationship are signals communicated from the contract maker or principal as the sender to the individual or agent as the receiver. Psychological contract signalling events or social cues comprise those which communicate performance standards, apply the compensation system, and demonstrate the authority to make the contract commitment (Rousseau, 1995, pp. 40 – 43). These are termed as performance communication signals, message reinforcement

signals, and authority display signals respectively. Therefore, to shape the agent's psychological contract using signals, the principal must act to demonstrate his role as the contract maker to the agent. For example, a performance communication signal appropriate to a contract maker is the communication of the required performance standard to the agent. A message reinforcement signal is an action by the principal reinforcing the agent's performance such as linking payment to performance through audits. An authority display signal is any action to display to the agent that the principal has the support of his organisation to make decisions about the contract.

Signals influence individuals' perceptions or misperceptions about their psychological contract with the other party (Suazo, Martínez and Sandoval, 2009, p. 155). In the situation of a principal seeking to influence an agent, the agent will observe these signals from the principal and interpret them, and decide how to act on the information contained in them. The psychological contract is formed in the context of the wider social relationship and the expected benefits arising from the contract. Such social relationships entail unequal distribution of power between the parties and unspecified obligations (Cullinane and Dundon, 2006, p. 115). In addition, parties cooperate where benefits are expected to result from past or anticipated contributions (Robinson, Kraatz, and Rousseau, 1994, p. 138). Therefore the agent will decide whether the observed signals from a principal are credible, interpret them as promises or future intentions, and make judgements of his required behaviour to fulfil his obligations under the psychological contract. How signals are interpreted depends on the observer's own individual predispositions, which include cognitive biases, such as focusing on information directly relevant to one's own interest, and motives, such as how the job affects their long-term career (Rousseau, 1995, pp. 43 - 44). The observer then makes behaviour judgements regarding the standards of behaviour to fulfil these commitments, since psychological contracts are a form of self-control encouraging people to keep their commitments (Rousseau, 1995, p. 44). Therefore, through the psychological contract which is influenced by signals from a credible contract maker, the individual may make a commitment to new behaviours.

Figure 2.3 - Psychological Contract Signals Communication Model (Source: author, based on Rousseau, 1995)



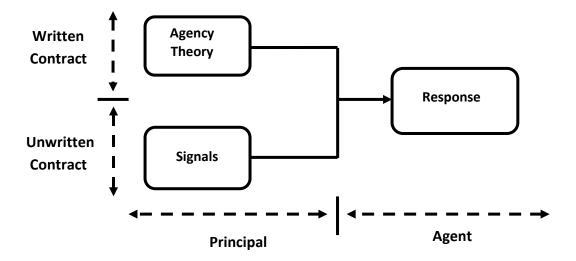
In summary, from the psychological contract view of signals, the principal's signals of performance communication, message reinforcement, and authority display may be used to address *ex post* contract management contingencies, influencing the agent's perceived obligations and his response to these contingencies. This is to a degree parallel to the economics view of signals as a means to address contingencies arising from the unwritten contract incompleteness. Interestingly, the psychological contract view highlights the concept of the agent's individual dispositions towards information relevant to his prospect as influencing his judgements. To decide which view of signals gives the most understanding of how and why managers use *ex post* mechanisms is a matter for empirical work. However, the literature review enables a first conceptual model to be presented, and this is the subject of the next section.

2.4 FIRST CONCEPTUAL MODEL

This thesis investigates how and why management mechanisms are used and whether a conceptual model can be developed to better understand *ex post* contact management. To form a view of what constitutes desirable performance to make purposive analysis possible, it is first necessary to construct an abstract version of the problem (Bowers, 1972, p. 281). Figure 2.4 shows the first conceptual model. The objective of this first conceptual model is to

summarise from the literatures reviewed a view of the mechanisms used by managers of incomplete contracts as they endeavour to manage *ex post* challenges towards optimum outcomes.

Figure 2.4 - First Conceptual Model of ex post Contract Management



Recall that the contract objectives, incentives, and information systems are specified by the principal in the written contract terms. When events proceed as envisaged by the terms of the *ex-ante* contract, the incentives and information systems suffice as *ex post* contract management mechanisms to enable the contract outcomes to be achieved. The principal's *ex post* contract management tasks consist mainly of administering the information systems and incentives as defined by agency theory.

However, due to the incompleteness of contracts, the objectives are likely to become challenged by unforeseen environmental events, and the written contract incentives and information systems no longer suffice. Both the principal and the agent are motivated to find solutions to enable the contract to continue, and will develop approaches based on the informal relational governance or indeed the psychological contract. For the purposes of the conceptual model, the informational relational governance and psychological contract are jointly termed the unwritten contract. Signals, whether understood by the economics or

psychological contract perspectives, may influence this unwritten contract. Therefore, in addition to the means offered by the written contract, the principal may send signals to the agent and influence the unwritten contract obligations perceived by the agent. These revised obligations, together with the mechanisms of the written contract, induce a response from the agent.

In conclusion, this model proposes that *ex post* contract management mechanisms comprise the principal's administration of the written contract incentives and information systems together with the unwritten contract mechanisms of signals as defined by either the economics or the psychological perspective. As underspecified formulations often serve well the investigation of conceptual problems, the notion of a loose coupling may be useful in describing such organisational puzzles (Orton and Weick, 1990, p. 204). Loose coupling imagery argues that any one means is loosely coupled to the end in the sense that there are alternative pathways to the same end (Weick, 1976, p. 4). Therefore either or both mechanisms of the written contract or signals may be used to induce a response from the agent. That is, based on either or both the written contract mechanisms and his interpretation of the principal's signals, the agent decides his response to the contract requirements.

There are a number of findings from the literature review. A finding on the first conceptual model based on the literature is that *ex post* contact management mechanisms have a dual aspect, based on the written and the unwritten contracts. The individual perspectives of the economic contract or the psychological contract are insufficient as theoretical explanations of *ex post* management of incomplete contracts. In addition, as complex contracts are unavoidably incomplete, all *ex post* contract management entails the management of change, and may therefore be viewed as part of organisational change management. This management of change also uses both economic and social mechanisms, and this finding allows an appropriate definition for such mechanisms. Therefore organisational mechanisms describe how interacting elements produce an effect not inherent in any one of them, and may be used to explain how ideas are implemented and perceptions cue actions in times of economic and social change (Davis and Marquis, 2005, p. 336). This definition assists the understanding of the *ex post* contract mechanisms, including the incentives, information systems, and signals.

Having formed an abstract version based of what constitutes desirable performance from the literature, more purposive analysis is now possible. It is necessary to develop a

methodological approach towards an empirical investigation taking into account the agency theory mechanisms, and the signalling mechanisms available under the economics and psychological contract perspectives. This is the subject of the next chapter.

CHAPTER 3 - METHODOLOGY

This chapter discusses the methodology used to address the research questions, and proposes a problem-driven and theory building research strategy using interpretative and qualitative methods applied to a number of case studies. Recall that the literature review highlights that neither the economic nor the psychological contract perspectives are individually sufficient to explain ex post contract mechanisms of incomplete contracts, and that a theoretic gap existed. It also highlights for practitioners that a change management approach is required to understand the required social and economic mechanisms to address unforeseen contingencies. When the research challenge lies in finding either good postulates to support theory or good theory relevant to the problem, normatively orientated field research can provide propositions to build theory relevant to practitioners, and provide new insights into practical problems (Bowers, 1972, p. 25). The choice of methodology, then, revolves around certain basic assumptions about what the organisational researcher is investigating and how they should go about it (Morey and Luthans, 1984, p. 27). The research questions seek to understand how and why managers of public contracts endeavour to secure successful outcomes, and develop a conceptual model of ex post contract management. This is of both theoretical and management relevance since the literature does not provide a complete explanation of written and unwritten contract mechanisms during the ex post stage of the contract. Such research relevant to both theory and practice presents challenges of rigour to the researcher. However, Phillips and Pugh (2005, pp. 50 - 53) propose that research to address such real world applications may be conducted through a logical and rigorous process. To develop such a logical and rigorous process, this section uses the research questions to develop the research strategy, philosophy, methodology, and methods to guide the empirical work, and schematic of the research approach is shown in Figure 3.1. These topics are now discussed in turn.

3.1 RESEARCH STRATEGY

This thesis's research questions concern how and why management mechanisms are used by managers and whether a conceptual model can be developed to better understand *ex post* contact management. Therefore, the research goals are driven by how and why questions, a focus on a real world problem and events, and aims to develop theory to fill a gap in the

existing theoretical frameworks. These goals, then, impose a certain direction on the research strategy.

The conventional scientific approach is based on a deduction of hypotheses from theory, expression of operational variables, and a test of these to evaluate the theory (Saunders, Lewis, and Thornhill, 2003, p. 86). However, Davis and Marquis (2005, p. 334) argue that while paradigm-driven work begins with hypotheses deduced from theory and uses events to test these hypotheses, problem-driven research in contrast is oriented towards explaining events in the world starting with the question of why. Therefore, while deduction is part of the logic of scientific enquiry, inductive research methodology generates new theories and explanations (Mintzberg, 1979, p. 584). For example, Van de Ven (1989, pp. 486 - 488) notes that inconsistencies between theories may provide opportunities to develop more encompassing theories, and the essential ingredients of a new theoretical contribution are explicit treatments of how and why. Driven by its research questions, this study has essential explanatory and theory development goals and requires a strategy appropriate to these. Bowers (1972, pp. 25 - 26) explains his theory building research strategy for real world problems as a two-step inductive approach to arrive at a deductive system. The first step is to describe the forces that affect the process, seeking patterns from the data and using evidence from other studies as well as existing theory. The second step is, from the empirical findings, to invent more general propositions to derive other findings and an improved model of the process.

Bowers's research strategy for theory building with real world problems has two useful implications to offer for this study. In the first place, the above strategy is a significantly inductive approach which is apt to provide a more encompassing conceptual model and explain the *ex post* management of contracts. While contrasting with the deductive approach, the inductive research strategy is logical and rigorous in that is immersed in existing literature and theory as well as empirical data. In the second place, the above strategy views real world problems as processes. Process thinking assumes that social reality is not in a steady state, human conduct is in a process of becoming, and the aim of the researcher is to catch this reality in flight (Pettigrew, 1997, p. 338). This appears in contrast to the focus of problem-driven research comprising a system of actors, actions, and relations (Davis and Marquis, 2005, p. 337) which emphasises studying more fixed and defined entities rather than processes. The consequence for this study is to integrate a theory building process approach

with a real world problem-focused study of defined entities. This paradoxical challenge is highlighted by considering the two traditional extremes views of the world. In ancient philosophy Democritus pictured all of nature as composed of stable material substances or things that changed only in their positioning in space and time, while Heraclitus viewed reality, not as a constellation of things, but one of processes where only varying activities exist (Van de Ven and Poole, 2005, p. 1378). To study *ex post* contract managers engaged in the process of securing outcomes it is critical to form a philosophical distinction about the entities and processes in the social reality relating to the contract between organisations. Therefore it is now necessary to examine the potential ontological views and epistemological approaches that would usefully underpin this study of *ex post* contract management. To do this it is first necessary to establish the fundamental nature of *ex post* contract management.

3.2 PHILOSOPHY UNDERPINNING THE RESEARCH

The literature review highlights the challenges of incomplete contracts (Walls, 2005, p. 209) which lead to ex post management of unexpected events, service extensions (Padovani and Young, 2008, p. 229), and the optimisation of contract cost and quality (Jensen and Stonecash, 2004, p. 10). Such unexpected events, extensions, and optimisations comprise changes to the initial ex ante view of the contracted services, and lead to management responses by both the principal and agent. Management scholars view organisational innovations and transitions in individual's roles as part of the study of organisational change (Van de Ven and Poole, 1995, p. 510). Researching how and why managers endeavour to secure successful contract outcomes in the face of unexpected events is fundamentally a study of the management of change. How organisational change may be studied depends on the ontological view of organisations as things or processes, and on the appropriate choice of variance or process methods or epistemology to study this change (Van de Ven and Poole. 2005, p. 1377). Applying this model to the study of change in the principal-agent relationship, the contract relationship between the principal and the agent is substituted for the organisation. Therefore to choose a methodology to study how and why managers secure contract outcomes, it is first necessary to identify the ontological views of the relationship between the actors inherent in the economic and psychological contract literature theories,

and then choose an appropriate method or epistemology to study the change managed by these actors.

Ontological views of contract relationship are evident in the economic and psychological contract literatures. In the economic contract literature, agency theory assumes it is that it is the contract that governs the relationship between the principal and the agent (Eisenhardt, 1989, p. 58). The contract governs competing interests towards a shared organisational goal. Therefore the agency theory view concerns self-interested economic agents while the organisational psychology view is one of role-holders motivated towards intrinsic satisfaction through challenging work (Donaldson and Davis, 1991, p. 51). In addition, unlike written contracts, the psychological contract is inherently perceptual and based on one party's understanding of the contract which may not be shared by the other party (Rousseau, 1996, p. 575). Therefore, one view is of an external contract specifying agreed actions by the parties, the other is an internal perceived contract. On first consideration it is difficult to consider the relationship arising from the economic contract and the psychological contract as ontologically similar. However, both views see the relationship as a process of balancing the individual needs by both parties. As one source puts it, agency theory is aligned with management theories from psychology that acknowledge the struggle between individuals and deal with human motivation, inducement, and compliance (Donaldson, 1990, p. 371). Therefore, the appropriate view of the relationship arising from the economic and psychological contracts is an ontological process.

The choice of epistemology used to research change depends on the study's definition of change. Variance epistemologies are used to study observed changes over time as dependent variables statistically related to independent variables, while process epistemologies study change as a narrative describing a sequence of events on how change and development unfolds (Van de Ven and Poole, 2005, p. 1380). Both the economic and psychological contract literatures highlight management of changes though social and organisational signals to communicate information, incentives, and changes to the psychological contract. For example, agency theory stresses the use of contract information systems for performance measurement and contract incentives to motivate the acceptance of risk (Eisenhardt, 1988, p. 490). The principal wants to send signals to boost the agent's performance by reinforcing their self-confidence in their ability to complete the task, or by highlighting how the agent's performance will benefit his future (Bénabou and Tirole, 2003, p. 491). Indeed, Spence

(1973, p. 654) proposes that social time spent, and demonstrations of willingness to spend time, can function as signals and communicate commitment to resolving disputes. Additionally, the psychological contract highlights that promises are communicated by words, actions and organisational signals (Rousseau, 1995, p. xiv), and signals influence individuals' perceptions or misperceptions about their psychological contract with the other party (Suazo, Martínez and Sandoval, 2009, p. 155). Therefore the study of how and why managers secure contract outcomes is not about discrete changes to organisations or actors, but rather about how change unfolds through a sequence of events and actions. According to the teleological process theory based on the philosophical doctrine that purpose or goal is the final objective of the change, purposeful actors, sufficiently like-minded to act as a collective entity, act as a motor for change without overriding the natural laws or constraints of the environment and resources (Van de Ven and Poole, 1995, p. 516). The view of the actors, the principal and the agent, conscious of the desired contract goals and endeavouring to secure ex post optimum contract outcomes within the natural constraints of the incomplete contract, closely follows the model of teleological process theory. Therefore this study's epistemology is a process one.

The above sections argue that the most appropriate approach to the study is an inductive one, with an ontological view of the relationship between actors as a process, and a process epistemology seeking to form a narrative describing a sequence of events. In addition, with its theory building goals, it is significantly inductive. The process, narrative and inductive directions of the epistemology have implications for the research methodology and are now discussed in turn. In teleological process theory, development is a change process of events that unfold during the duration of the entity's existence, and is viewed as sequence of goal formation, implementation, evaluation, and modification emerging through purposeful social construction among individuals in the entity (Van de Ven and Poole, 1995, p. 520). A key implication of this process model applied to the contract is that the principal and agent endeavour to secure solutions through purposeful social construction.

In narrative theory, the story is an abstract model identifying the generative mechanisms at work by describing a progression which includes the sequence in time, the focal actors, the identifiable narrative voice, the evaluative frame of reference, and other indicators of content or context (Pentland, 1999, pp. 712 - 713). Again a key implication is the identification of the narrative voice, which should appropriately support the narrative of the events that unfold in

this study. As the researcher has some twenty seven years' experience of facilities management contracts in the private and public sectors, the narrative voice is inescapably that of a practitioner seeking to fill theoretic gaps in understanding and apply appropriate management response to unforeseen challenges. The narrative voice in the study must be sympathetic to the purposeful social construction of the principal and agent. This places the narrative voice of the researcher in the social constructionist paradigm or interpretive research tradition.

The essence of the research paradigm of social constructionism is that reality is determined by people rather than external factors, that human actions arise from the sense people make of situations, and that research should use primarily interpretative methods to note people's experiences, meanings, and communications (Easterby-Smith, Thorpe and Jackson, 2008, p. 59). In social constructionism people's interpretations affect their actions and social interactions with others (Saunders, Lewis, and Thornhill, 2003, p. 86). However the interpretive research tradition is more consistent with the ontological view of organisational entities expressed earlier, that the actors are things. The interpretive perspective assumes a relativism position of realities composed of subjective and objective meanings which influence the behaviour of social actors, and using the unit of analysis of verbal and nonverbal actions, its goal is to describe actors' meanings and their implications for social interaction (Gephart, 2004, p. 457). Indeed, at the core of social constructionism is the sense that social reality is constructed through both language and social interactions (Price, 2012a, p. 19). This philosophical stance has applications to the economic and the psychological contract situations. For example, in written contract situations the agent acts in response to his interpretation of the principal's intentions codified in the written contract (Hodgson, 2004, p. 407). In the psychological contract, the mental models cue people as to how to interpret events, and these models continue until interrupted by a noticeable signal (Rousseau, 1995, p. 30). Managers involved in change need to undergo an alteration of their assumptions, orientation, and cognitive structure to facilitate and maintain that change process (Isabella, 1990, p. 8). Therefore the management responses to situations and changes arising from the economic and psychological contracts entail human language and interactions, interpretations, reinterpretations in response to signals, and actions based on these. The interpretivist paradigm, then, is an apt research strategy for the study of how and why managers endeavour to secure optimum outcomes during the ex post contract.

3.3 RESEARCH METHODOLOGY

The inductive research approach implies certain methodological directions including a concern with the context in which events take place, a small sample of subjects, and working with qualitative data collected by a variety of methods (Saunders, Lewis, and Thornhill, 2003, p. 86). While a majority of organisational researchers have traditionally been advocates of an objectivist, general, quantitative, outsider or etic approach, more recent recognition has been given to subjectivist, individual, qualitative, insider or emic approach concerned with defining human actions within settings, the historical context of the situation, and the insider's own definitions, motives, and purpose (Morey and Luthans, 1984, pp. 28 - 29). An emic approach using qualitative methodologies on a single organisation or study of a few persons is useful in understanding psychological contracts (Rousseau and Tijoriwala, 1998, p. 682). Within these qualitative methodologies, content analysis has been used as a methodology in management research to access deep individual and collective structures such as values, intentions, attitudes, and cognitions (Duriau, Reger, and Pfarrer, 2007, p. 6). All of these methodological directions appear useful and supportive in the practical situation of conducting a problem-driven doctoral research study. The study's theory building approach provides opportunity for a theoretical contribution and normative approach as to how contracts should be managed. In addition, the use of small samples with a concern for context is more feasible way for a management practitioner acting as researcher to collect qualitative data than the classical scientific method (see Easterby-Smith, Thorpe and Jackson, 2008, p. 69). In summary, the research questions towards real world contract problems and a more encompassing theoretical explanation justify an inductive theory building approach supported by empirical data obtained through an appropriate qualitative methodology.

A final consideration of the research methodology is the selection of an appropriate unit of analysis for the study of *ex post* contract management. From an economic contract perspective, agency theory takes the unit of analysis as the contract governing the relationship between the principal and the agent (Eisenhardt, 1989, p. 58). In the psychological contract literature the focus is the individual's beliefs regarding obligations to the other party (Rousseau, 2001, p. 534, and Rousseau and Tijoriwala, 1998, p. 680). Therefore the agency theory and mutual psychological contract perspectives share a common view of a relationship based on obligations. On one side, the obligations are explicitly established in the written economic contract (save for any incompleteness for the contract), and on the other side the

obligations are perceived between the parties. However such situations of explicit and perceived obligations arising from formal and more personal relationships are common. Indeed, over time in inter-organisational agreements, personal relationships increasingly supplement formal role relationships (Ring and Van de Ven, 1994, p. 103). To be consistent with the paradigm, this unit of analysis will focus on the social constructions of the contract actors. Davis and Marquis (2005, p. 337) suggest that a fruitful unit of analysis for problem-driven research is a field comprising a system of actors, actions, and relations, whose participants take one another into account as they carry out interrelated activities. More particularly, Price, Ellison, and MacDonald (2009, p. 9) hold that the socially constructed realities of managers involved in public contracts have contractual and commercial implications. Therefore the unit of analysis of this study may be appropriately selected as the contract relationship between the principal and the agent. This entails the economic and psychological perspectives of the parties' obligations, their socially constructed realities, and the contractual and commercial implications for *ex post* management of incomplete contracts.

3.4 RESEARCH METHOD

While methodology is the theory of how the research should be conducted, the methods are the tools and techniques to collect and analyse the data (Saunders, Lewis, and Thornhill, 2003, p. 2). Well-developed methods that usefully support qualitative research should be preceded by a literature review on the appropriate and related fields, and include the case study and the interview (Gephart, 2004, pp. 458 - 460), and this study draws on these methods. Recall Bowers's theory building research strategy for real world problems (Bowers, 1972, pp. 25 - 26). This study uses Bowers's cyclic and inductive approach in stages, each stage produces a conceptual model and the succeeding stage uses empirical findings or literature to produce an improved model. The development of these conceptual models hinges on inadequately explained issues, and draw on both agency theory and the psychological contract. This is a recognised approach to theory building. Once articulated, theoretical models may be improved by addressing anomalies, where outcomes differ from that predicted by the current model, examining the situation through another academic lens (Gilbert and Christensen, 2005, pp. 76 - 80).

Therefore the research is divided into three main stages, a literature review, an initial study, and a main study. The literature review articulates a conceptual model which will then be improved by examining the empirical situation and by using another academic lens. With this first conceptual model, there is sufficient preparation completed to start the empirical work. Hamel (1991, pp. 84 - 85) uses a two-stage theory development approach to an empirical study. He first selects eleven cases with underlying differences in order to highlight universal categories. He then selects two cases with anticipated maximum and minimum variances of the core model to gain a more detailed understanding of the mechanisms of the emerging theory. Drawing on this approach, the empirical work of this thesis is based on an Initial Study of five cases followed by two cases studied in depth in the Main Study. The literature review, Initial Study, and Main Study are now described in turn.

3.4.1 Literature Review

The first stage is the literature survey, describing the forces that affect the contract management process, using evidence from existing theory and other studies. In this first stage, the study's central proposition is developed and argues that the management of real world incomplete contracts during the ex post implementation stage requires an additional conceptual perspective to those individually presented by agency theory and the psychological contract. To address this proposition, the main theories in the literature underpinning the management of contracts during the ex post stage are first reviewed. Yin (1993, p. 10) emphasises the importance of theory development prior to the conduct of the study, as the findings pertain to specific theoretical propositions. In the literature survey the main theoretical blocks of ex post contract management are identified as the economic and psychological contracts, agency theory, and signals theory from both the economic and psychological contract perspectives. Having reviewed the literature, using the Bowers approach it is appropriate to initiate the theory building process by forming a first conceptual model. This conceptual model is the first articulation which is improved in the Initial Study by using the economic lens, and improved further by using the lens of the psychological contract in the Main Study. The literature is used during all stages of the study. While the study's general literature review is at the beginning, generally inductive analysis in data-led qualitative research should use the interleaving of the literature and the data to support

reflection (Leavy, 1994b, p. 115). Indeed, evolving theory requires that the data and theory be constantly contrasted throughout the data collection and analysis process (Isabella, 1990, p. 12). Therefore, this study uses the literature during all the stages to achieve analysis of the data, and support the development of improved theoretical models.

3.4.2 Initial Study Using the Economic Perspective

The second stage of the research comprises an initial study which builds on the first conceptual model by an exploratory investigation of the use of signals in the unwritten contract. The objective of the Initial Study is to describe incomplete written contracts in the *ex post* stage, find empirical evidence of the use of signals by principals to influence the agent through an unwritten contract towards solutions to written contract problems, and improve the first conceptual model. To derive such an improved conceptual model from existing theory and empirical findings (Bowers, 1972, pp. 25 - 26) the Initial Study is an exploratory study which examines five cases of public contracts during the *ex post* stage with the aim of identifying the usage of signals to secure contract outcomes when unforeseen events arise. There are three reasons for this approach.

First, the case study approach offers a logical method to investigate the how and why research questions which are explanatory and deal with operational links traced over time rather than frequencies or incidence (Yin, 2009, p. 9). Second, because signals without categories are identified from the literature as management mechanisms in the initial conceptual model, a holistic case study design is chosen. As Yin (2009, p. 50) indicates, a holistic design is advantageous when no logical subunits are yet identified. Given that the exploratory nature of the study included the possibility of finding certain categories of signals, a multiple case approach was chosen. As Yin (2009, p. 54) notes, a study using four to six cases is designed for theoretical replication where some contrasting but anticipated results are expected. The initial conceptual model based on the literature predicts that signals are used as *ex post* contract management mechanisms. Since it is likely that conceptual categories exist, it is reasonable to assume that these signals may vary in type. Therefore the selection of five cases is an appropriate number to make evident the replication of signals as well as potential contrasting types. The third reason is that the unwritten contract signals may be viewed from an economics and a psychological contract perspective. The use of an Initial

Study allows investigation of the economics perspective on both the written contract and the unwritten contract signals used as *ex post* contract mechanisms.

As the author was responsible for managing public contracts in his organisation, these presented an opportunity for access to sufficient number of cases for a holistic study. Although the case contracts were managed by the researcher's staff and were at a distance, this approach also presented the potential problems associated with insider research. Brannick and Coughlin (2007, pp. 62 - 70) warn that insider research may be influenced by preunderstanding, role duality, and organisational politics, with the respective associated dangers of being too close to the data, role confusion, and political limitations on reporting data. Therefore, in the Initial Study there was an existing pre-understanding of good contracts management, the role duality of being both a manager and a researcher of the same contracts, and the awareness that his staff or senior management may not like any negative reports on the contract performances. These potential problems were acknowledged and addressed by focussing on the theory building rather than performance findings from the cases, and explaining this to both the participants and the senior management members. To successfully manage insider researcher issues, Brannick and Coughlin (2007, pp. 62 – 63) recommend remaining honest to the researcher's personal perspectives and open to disconfirming evidence through seeking it out through interviews and journaling to reflect on personal perspectives.

During the Initial Study data was collected from archival material taken primarily from the principal's organisation's contract files, including the tender documentation, legal contract agreements, formal written correspondence between the principal and agent, invoice payment records, contract insurance certificates, formally recorded minutes of meetings between the principal and agent. In addition, a search on the principal's organisation IT system was done to collect historical sent emails which recorded conversations and decisions in relation to the managements of these contracts. Photocopies of the relevant documents were made, resulting in a research data file of over a thousand A4 pages for the five cases. Memos were written summarising the information relating to the written contracts and documented events that appeared to show incompleteness and decisions in relation to changes in the contract. In such memos and other descriptions, actual names were removed and replaced with labels to preserve confidentiality. Also, a brief interview of ten to fifteen minutes was held with each of the principals to encourage unexpected or contrary data to that already documented.

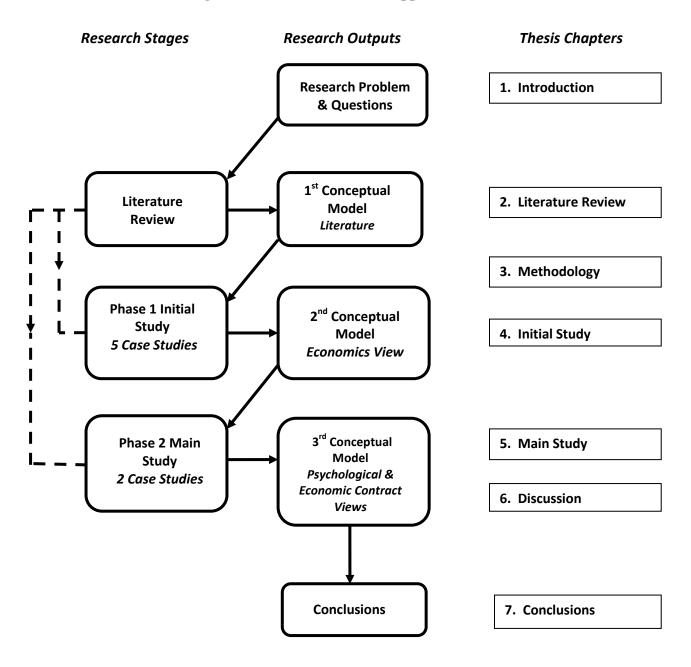
Interview responses were recorded by taking notes and writing out memos on the main themes afterwards. In addition, journaling was used in the form of a learning diary which was maintained through the doctoral learning experience, and documented reflections were discussed with the thesis supervisor and areas for further literature reading identified to support understanding and maintain a sound theoretical perspective. In summary, while the author is researching public contracts within his own organisation, and for which his staff were acting as principals, through these means, potential insider researcher issues were managed during the Initial Study.

Using the data collection, and the analysis based on comparisons with the literatures, the Initial Study develops a number of propositions leading to a second conceptual model.

3.4.3 Main Study Considering the Psychological Contract

The third stage of the research comprises the Main Study which investigates two cases of public contracts, and considers the psychological contract perspective. The objective here is to add to the insights of the Initial Study which uses an economic perspective only. To grasp the nature of the psychological contracts in place it is necessary to drill down into the beliefs held by the parties as well as the information sources they use to interpret the work environment (Rousseau, 2004, p. 123). An emic approach using qualitative methodologies on a single organisation or study of a few persons is useful in understanding psychological contracts (Rousseau and Tijoriwala, 1998, p. 682). While large samples may produce results significant only in a statistical sense, simpler and more direct methodologies using a sample of one, observing activities and tracing the flow of decisions, may prove more valid (Mintzberg, 1979, p. 583). Indeed, Yin (2009, p. 47) argues that when a theory has specified a clear set of propositions a single case study can be used to confirm, challenge, or extend the theory, or determine whether some alternative set of explanations might be more relevant. While a single case study does not strive for statistical generalisation, close examination of a single case gives an in-depth description of the actions involved in certain processes, together with their effects, and is productive for theoretical development (Hansson, 2010, p. 125).

Figure 3.1 – Thesis Research Approach



To ensure that data collection allows the comparing and contrasting of findings, the Main Study comprises two cases with the data collection comprising separate interviews with principal and agent of a contract in its *ex post* management stage. The reason for this approach was that interviews are the logical method to gather data since the research objective is to understand the social constructions that inform behaviours in *ex post* contract management situations, and since advocates of both economics and psychological contract

research support this qualitative approach. For example, Piore (1979, p. 566) explains that while economic theory attributes to participants prior knowledge of the relative prices of substitute resources, interviews and participant observation are ways of discovering how economic participants think about the world, of identifying the economic participant's model of the socioeconomic world used in their decision-making (Piore, 1979, p. 566). Also Rousseau (1995, p. 5) suggests that interviews with individuals are important as a means of capturing the dynamics of contractual thinking.

Interviews were conducted with both the principal and agent in each of the two cases. The interview questionnaire was logically derived from the Initial Study's propositions. The first and second conceptual models are used to develop the Main Study's interview questionnaire which is given in Appendix I. If data is collected primarily through interviews, open questions may be used first and then followed by targeted questions about the predetermined categories determined from the existing theory and research (Hseih and Shannon, 2005, p. 1281). Therefore to facilitate a logical development of the discussion by the interviewed manager, the questionnaire first addresses general questions in relation to the contracted service and the completeness of the contract. Next questions are aimed at issues to do with the formal contract management mechanisms of information systems and incentives as understood by the managers. Questions then address the informal contract relationship based on relational obligations and trust. The questionnaire then moves to the additional and more subtle mechanisms of perceived signals issued by the client manager, or principal, and observed by the contractor, or agent. Finally, a general question is proposed to surface any general management mechanisms used and not discussed during the interview. While the same questions were posed to each interviewee, no attempt was made to guide the interviewee or curtail the answer. These interviews took between sixty and ninety minutes and were recorded with the permission of the participants. The success or failure of the interview process to reveal the process of business management depends less on interview questions and more on the stories told at the interviews (Piore, 1979, p. 561). To avoid the problem of interviewees taking cues to answer in a certain way (Hseih and Shannon, 2005, p. 1283), the questions were worded to ensure the interviewer did not mention key theoretical terms, and the interviewees were allowed to continue freely, or even change the subject, during their responses. Any suggestions of the theoretical assumption that written contracts are usually incomplete and the management of unforeseen circumstances requires recourse to

the psychological contract were avoided. The interviewees were not asked about contract changes but generally to describe situations during the workings of the *ex post* contract.

To analyse the collected data, the initial step was to make written interview transcripts for analysis. The transcripts were edited to remove any identifying names and substituting labels to preserve confidentiality. Following this, the transcripts were read and re-read to identify and tabulate the agency theory ex post contract mechanisms together with any identifiable contract change events. Central to content analysis as a research methodology is the assumptions that language is important in human cognition and that analysis of the texts lets the researcher understand other people's cognitive schemas (Duriau, Reger, and Pfarrer, 2007, p. 6). Miles and Huberman (1994, pp. 58 - 63) suggest that starting codes may come from the conceptual framework, have clear operational definitions for consistent application, and will require to be revised as the study continues. Following the tabulation of the contract mechanisms and events, initial coding categories were formed from agency theory, psychological contract, and signals theories. Hseih and Shannon (2005, pp. 1281 - 1283) recommend that when the research goal is to validate or extend a conceptual framework or theory, a directed approach to content analysis should be used, using existing theory about the variables of interest to determine the initial coding categories. Then operational definitions are determined from theory. Finally using newly identified categories are used to further refine, extend, and enrich the theory. In addition to categories from the existing theories, there were newly identified categories. Since anecdotes collected by the researcher close to the situation that provides the rich description to build the theory explaining interesting relationships (Mintzberg, 1979, p. 587), notes were made using the progression and the newly identified categories (Pentland, 1999, pp. 712 - 713). The empirical work and discussion concludes with the presentation of the third conceptual model. This final conceptual model completes the thesis' approach to filling the theoretic gap.

Finally, the research concludes with a discussion of its validity, limitations, and contributions. Validity of the study depends on how clearly it gained access to the actors' experiences, the reliability on the transparency about how sense was made from the raw data, and generalizability on the relevance of the derived constructs to other settings (Easterby-Smith, Thorpe and Jackson, 2008, p. 109). Both the validity and limitations of the study are

discussed in the concluding chapter, together with the study's theoretical contributions and management implications.

In summary, this chapter sets out the problem-driven and theory building research strategy to address the research objectives. These include investigating how and why managers use *ex post* contract management mechanisms to manage incomplete contracts, and developing a conceptual model to fill the theoretic gap between the economic and psychological contract models. As the principal and agent are managing change in the economic and social contract relationship, the unit of analysis is this relationship and a social constructionist approach with interpretative methods is used. To develop an improved conceptual model, the empirical research is conducted in two phases. First an Initial Study using five cases and archival data is carried out based on the economics perspective of contracts and signals. Then a Main Study, using two in-depth cases and interviews, is completed based on the economics and psychological contract perspectives. The next chapter details the Initial Study.

CHAPTER 4 - INITIAL STUDY

The research questions seek to understand how and why managers of public contracts endeavour to secure successful outcomes, and develop a conceptual model of *ex post* contract management. The Literature Review concludes with a first conceptual model highlighting the principal's use of both written and unwritten *ex post* contract management mechanisms to influence the agent's response. This Initial Study takes an economics perspective on these written and unwritten contract management mechanisms.

When events proceed as envisaged by the terms of the *ex-ante* contract, the incentives and information systems (Domberger & Jensen, 1997, Sappington and Stiglitz, 1987, and Eisenhardt, 1985) are sufficient as *ex post* contract management mechanisms to enable the contract outcomes to be achieved. However, due to the incompleteness of contracts (Williamson, 1999), the objectives are likely to become challenged by unforeseen environmental events, and the written contract incentives and information systems no longer suffice. Both the principal and the agent are motivated to find solutions to enable the contract to continue. They will develop approaches based on the informal relational governance (Coase, 2006) to address the unforeseen contingencies (Walls, 2005). These approaches include the principal's signals of time spent (Spence, 1973), their resources (Lawrence *et al*, 2005), or their seniority of position in the relationship (Spence, 1973). The signals observed by the agent influence him through additional information on the required performance (Nikander & Eloranta, 2001), incentives (Bénabou & Tirole, 2003), and mutual interest (Spence, 1973).

The exploratory study is described as follows. Five cases of public contracts between a higher educational institution and a private firm are described. A number of propositions are then proposed and a conceptual model put forward. Finally, some suggestions for further research are made.

4.1 INITIAL STUDY ANALYSIS AND FINDINGS

EdCo is a government funded higher education institution with some 2,000 staff and 10,000 full-time students based in a number of buildings. EdCo's arrangements for the provision of facilities management services are by contracts with private firms. These contracts include

the five cases: the property rental, the waste removal, the canteen catering, the insurance brokerage, and the cleaning services. These contracts are subject to public procurement regulations which require periodic public tenders to be held. Following the tender award, the contracts are signed for a period of three years with two further one-year extensions possible subject to a satisfactory review of the contractor's performance. The only exception is the property rental contracts, which is directly approved by the Department of Education resulting in contract duration of fifteen years. The contracts are managed on behalf of EdCo by individual principals, who report to the author. Each EdCo principal has operational control over the contract budget resources, technical knowledge of the contracted services, and broad social skills to deal with end-user complaints and motivate agents. Principals usually only involves their EdCo senior manager in serious contract issues such as risk of overspending the total annual budget, contract breaches in relation to quality or Health and Safety, or serious complaints from the EdCo stakeholders.

The five cases are now discussed in turn.

4.1.1 Case 1 - Property Rental Contract

The property rental contract comprises lease on a 2,000 square metre Victorian premises which is used as an art school by EdCo. The provider and owner of the premises is PropCo, which provides the contract agent to manage the property. The contract terms include a fifteen year lease with an annual rent of €390,000 subject to upward-only rent reviews every five years, and an internal maintenance obligation on the tenant. While the contract is not the subject of frequent tenders, there are tenant break options every five years where EdCo may choose to terminate the rental contract. This break option introduces some degree of contestability into the contract. The desired contract outcomes for the EdCo principal are the use of a safe property suitable for staff offices and student classrooms, workshops, and studios to develop artistic knowledge and skills, at a market rental cost that can be demonstrated to be value for money. The contract incentives for the agent are EdCo's rent payments, paid quarterly, and avoidance of exercising a break option to exit the lease. In practice, these incentives are fixed, as rent reviews are subject to arbitration and exercising the break option would require finding alternative accommodation which would be a significant project for EdCo. The contract information system comprises site meetings every

three months between the principal and agent to review matters and agree actions to resolve any issues.

Table 4.1 - Case 1 - Property Contract – Written Contract ex post Situation

Written Contract Mechanisms by Principal		Written Contract Incompleteness	Agent Response
Incentives	Information Systems		-
Prompt payment of €390,000 annual rent Non-exercise of lease break options Action: Principal threatens to withhold rent payment	3-monthly site meetings	No definition of structural repairs	Repairs to be done at the end of the academic year

Table 4.2 - Case 1 - Property Contract - Principal's Signals and Influence on Agent

Principal's Signals		Influence	Agent Response			
Time	Resource	Position	Information	Incentive	Mutual Interest	
Principal's senior manager takes time to call agent		Principal demonstrates access to EdCo senior manager	Agent observes a change of communication from verbal to written email.		Agent hears that the contract outcomes are important to the reputation of both parties	Performs the required works within a month

A matter of contract incompleteness became apparent in relation to significant internal repairs. In the written contract the EdCo principal is required to repair the interiors while the agent is required to perform any required structural works. Over a period of winter months, ingress of damp lead to paint peeling off the internal walls, leading to complaints from staff and students regarding the deterioration and the difficulty in fixing the programme artwork to the walls. The agent did concede that the fault was structural in origin, but not accept the EdCo principal's view that the consequential requirement for internal works were his responsibility, or that they were urgently required. The principal stated her intention to withhold payment of the rent. The agent then emailed proposing that works would be carried out at the end of the academic year, and that this would be regarded in court of law as a reasonable response time. Despite a number of conversations, no improved proposal was received from the agent. At this point the EdCo principal emailed the agent, copying her senior manager, summarising the problem and requesting action from the agent. She then asked her senior manager to intervene. The EdCo senior manager telephoned from his personal mobile telephone directly to the agent's personal mobile. During the discussion the EdCo senior manager suggested that while the issue was not clear in the written contract, many end-users were adversely affected, and it was in both their long-term reputational interests for the matter to be resolved. The agent apologised and agreed that he would carry the required structural repairs. The following month, all the agreed works were completed.

Tables 4.1 and 4.2 display the case's written contract mechanisms and incompleteness and the arising signals and responses by the agent. This case supports the proposition that both written and unwritten contract mechanisms are used to address *ex post* management challenges. In response to a contract performance issue, the principal used the agreed information system, the monthly meeting, to seek a remedy. The agent responded first by noting that the contract did not require him to provide a remedy. The principal then endeavoured to further apply the written contract mechanism by threatening to withhold the rent payment as a penalty. This resulted in the agent offering to provide the remedy, but only within a reasonable time. Having exhausted the written contract mechanisms, the principal changed to written communication by sending an email, and contacted a senior organisational figure in EdCo, who in turn contacted the agent and appealed to the mutual interests of PropCo and EdCo in requesting a remedy. The agent being aware that the principal had ready

access to EdCo senior organisation figures, responded to reference of mutual interests, and remedied the situation with the required works.

4.1.2 Case 2 - Waste Removal Contract

The EdCo waste removal contract is performed by a private licensed waste contractor firm called WasteCo. The contract services comprise the removal and disposal of recyclable, catering, electrical equipment, construction, and laboratory wastes from EdCo's buildings at an annual cost of €300,000. The contract is for a maximum of a five year period, with the last two years subject to a satisfactory review. The contract benefits to EdCo include the collection of waste to conform to statutory legislation, holding costs within the annual EdCo waste budget, generation of more accurate data and records of the waste streams, and reducing costs through provision of improved waste bins and education programmes for greater segregation and recycling by individual end users. The contract incentives to WasteCo are the contract payments by the principal, and the establishment of a contract reputation to cite as a reference in future tender bids. The contract information system comprises monthly waste stream reports and an accompanying monthly management meeting between the principal and agent.

Historically the contract had been managed by a number of EdCo administrators, each based in a different EdCo building. The contract incompleteness became apparent following the centralisation of the EdCo waste contract budget, and the appointment of a single EdCo principal in 2010. Despite the EdCo decision and announcement, the WasteCo agent continued to meet with, and report to, the former de-centralised EdCo budget holders who were still EdCo managers in their own right, and did not readily engage with the new EdCo principal. This resulted in separate information reporting of the waste streams, difficulties in monitoring EdCo's cost, and a delay of the roll-out of the recycling and education programme to end-users in the EdCo buildings. When the EdCo principal emailed the WasteCo agent to request assistance with the changes, the agent replied that she was implementing the service in compliance with the terms of the written contract.

Table 4.3 - Case 2 – Waste Removal Contract – Written Contract ex post Situation

Written Contract Me	echanisms by Principal	Written Contract Incompleteness	Agent Response
Incentives	Information Systems		
Prompt monthly payments of €300,000 annual waste charges (based on the weight and type of the materials collected) Action: Principal new central reporting arrangements, and roll-out of waste reduction	Monthly waste reports and site meetings	Written contract did not specify a single principal or point of contact in EdCo	Agent continues to submit reports in old format; does not start waste reduction programme

Table 4.4 - Case 2 - Waste Removal Contract - Principal's Signals and Influence on Agent

Principal's Signals		Influence of Signals on Agent			Agent Response	
Time	Resource	Position	Information	Incentive	Mutual Interest	
Off-line meetings to discuss differing perspectives of the written contract	Use of principal's technical knowledge to propose the new approach Principal signals her control of the budget			Meetings to discuss how waste reduction project will likely benefit WasteCo in future tenders	Agent is told that the roll out of waste reduction programme benefits both agent and principal	Performs the required works within a month

The newly appointed EdCo principal then met informally with the WasteCo agent over coffee to discuss their understandings of the contract and the developing waste issues. At the meeting, the EdCo principal re-explained that local EdCo waste budgets were terminated and that she was the authorised central contract budget holder. As she alone was now responsible for improving the total EdCo waste cost, she was prepared to work on a one-to-one basis with the agent. She highlighted that the new approach would improve regulatory compliance and EdCo's costs. The achievement of the new objectives would add to the WasteCo agent's regulatory recycling targets, and indeed WasteCo's prospects for tenders with other organisations by the achievement of an important change management project. Over a number of informal meetings, both principal and agent agreed a new waste information report format, a programme to roll out the recycling building-by-building, and a joint survey of all laboratories and workshops to better segregate waste streams. The following month, the WasteCo agent implemented these new steps.

Tables 4.3 and 4.4 display the case's written contract mechanisms and incompleteness and the arising signals and responses by the agent. This case supports the proposition that both written and unwritten contract mechanisms can be used to address *ex post* management challenges. Despite the information regarding the centralisation of the waste budget, the agent continued to operate according to her interpretation of the written contract. Indeed, the written contract was incomplete, and did not specify whether EdCo held local or central budget. The principal's personal time together with social skills, technical knowledge, and budget ownership appeared to be influences on the agent as incentive and mutual interest signals. The positive response from the contract agent and the follow up actions appear to confirm recognition of these signals, and induced the implementation of changes and improvements beyond the scope of the written contract.

4.1.3 Case 3 - Canteen Catering Contract

The EdCo canteen catering contract is performed by a private firm called CaterCo with experience in providing catering services to higher education and corporate clients. The contract service comprises the provision of prepared hot meals, snacks, and hot and cold beverages for EdCo students and staff in eight EdCo buildings. The contract period is for a maximum of five years, with the last two years subject to a satisfactory review. There are a

number of contract benefits to EdCo. These include the provision of a safe food service at agreed prices for its students and staff, and the management of compliance with current food hygiene legislation. In addition, CaterCo provides a contribution from the financial turnover comprising a number of elements: the canteen and equipment refurbishment costing some €500,000, annual maintenance on production equipment costing €20,000 performed on all production equipment, and a €20,000 annual financial contribution to EdCo. The contract incentives for the CaterCo include retaining canteen cash turnover in the EdCo buildings, retaining market share against potential competitors (a stated company policy), and enhancing the company reputation for future tenders. The information system comprises monthly sales turnover reports from the CaterCo, monthly meetings between the principal and the agent, and passing on to the agent any customer comments received by the principal.

Table 4.5 - Case 3 - Canteen Catering Contract - Written Contract ex post Situation

Written Contract Mechanisms by Principal		Written Contract Incompleteness	Agent Response	
Incentives	Information Systems	-		
Retention of canteen	Monthly sales turnover	No provision to remedy	No	
financial turnover	reports	poor staff service to	response	
CaterCo retain market	Monthly meetings of			
share & reputation	principal and agent			
building for future tenders				
	Principal passes customer			
	comments to agent			
building for future tenders				

Table 4.6 - Case 3 - Canteen Catering Contract - Principal's Signals and Influence on Agent

Principal's Signals		Influence	Agent Response			
Time	Resource	Position	Information	Incentive	Mutual Interest	
Principal spends writing a report.	Principal exhibits technical knowledge in her study of the canteen performance	Use of principal's access to senior management to arrange a shared event attended by figures in EdCo and CaterCo.	Principal changes tone of communications from verbal to formal written letter	Principal's positive comments to agent's senior management figures reinforces agent's confidence	Agent hears expression of the expected mutual benefits of the relationship	CaterCo replaces unhelpful canteen manager; financial turnover figures are reported as improved

The contract incompleteness emerged when it was discovered that there was no contract clause to address the poor performance by a member of CaterCo staff. The EdCo principal received repeated EdCo customer reports of poor service in one CaterCo canteen location, including apparent rudeness to customers. The EdCo principal also noticed that this canteen location had a lower than expected financial turnover. The EdCo principal raised both matters at the monthly contract meeting and the agent admitted there was a difficulty with one key team member. A further month passed with additional complaints received by the principal, and no response by the agent.

The EdCo contract manager changed the tone of the communications to the agent by posting a formal letter to the agent highlighting concerns about the staff complaints and the lower than expected financial turnover. She included a written technical review of the financial contributions in other canteen locations, the physical areas, the customer numbers, and the annual opening hours, supporting the proposition that poor financial performance is linked to poor customer care. Separately, she issued an invitation to the agent and his senior

management to attend a fundraising event hosted by EdCo. This subsequently provided an opportunity for her to comment positively on the agent's performance in front of both CaterCo and EdCo senior managers, highlighting the benefits of the contract to both parties. Some weeks later the agent wrote a formal response to the principal confirming that a review of the CaterCo canteens would be carried out. Later, the agent telephoned the EdCo principal to say that he appreciated her efforts and that the individual delivering the poor performance would be reassigned away from customer-facing duties and offered additional customer relationship training. Some months later the agent reported at the monthly meeting that the financial turnover figures had shown improvement.

Tables 4.5 and 4.6 display the case's written contract mechanisms and incompleteness and the arising signals and responses by the agent. This case supports the proposition that both written and unwritten contract mechanisms can be used to address *ex post* management challenges. Initially, the principal's use of the contract information system, the monthly meeting, did not elicit a response from the agent to address the poor staff behaviour. Indeed, the written contract had no clause whereby the principal could request the removal of a member of the agent's staff. The agent then changed communications from oral means to a written letter, wrote a technical report on the catering performance matters, and was successful in getting senior EdCo and CaterCo figures to attend the same fund-raising event, providing opportunity to publically praise the agent's efforts, and highlight the mutual benefits of the contract. These actions fit the description of time, resource, and position signals from the principal resulting in information, incentive, and mutual interest influences on the agent and his senior management. Together with the written contract mechanisms, these signals led to a positive response by the agent who moved the staff member to a more appropriate area of work.

4.1.4 Case 4 - Insurance Brokerage Contract

The EdCo insurance brokerage contract is provided by InsureCo, which negotiates EdCo's required insurance cover including public and employer's liability, professional indemnity, product, engineering, and travel insurances, and provides technical support to manage these insurances. InsureCo's services also include advice to control EdCo's insurance costs, technical support on queries in relation to unusual teaching or research projects, and liaison

with the insurance providers during any legal processes arising from claims. The contract is tendered every five years and InsureCo has won the last two tenders. The contract incentive to InsureCo is an annual fee of €50,000, and increased experience to credibly tender for other similar contracts. The contract information systems comprise monthly meetings and a written report on the status of insurance claims and their legal processes.

Contract incompleteness was identified during a disagreement on the extent of the InsureCo's technical support role to EdCo. Typically an EdCo lecturer or College administrator would contact the principal prior to a field trip for confirmation that appropriate insurance cover was in place. Over time, the principal formed a view that these tasks could be more rapidly handled if dealt with directly by the InsureCo agent. During a regular monthly meeting this was agreed by the principal and the agent that a certain number of named EdCo staff could contact InsureCo directly with queries. However, it was noted at a subsequent monthly meeting that the agent's team responded slowly to queries, effectively leaving the principal to discover outstanding issues and handle the work. The written contract specified communications between the principal and the agent, but did not refer to potential communications from EdCo end users.

Following a number of telephone conversations, the principal emailed the agent to confirm a change in the information system. The principal indicated that she wanted to increase the frequency of the contract information meetings from monthly to weekly, record all meetings with formal minutes, and change their location from the agent's office to that of the principal. The agent agreed to this. At the first meeting, the principal proposed an addition to the information system. This would be an issues log which would be updated weekly by the agent and forwarded to the principal in advance of the weekly meeting. The principal notes in the minutes that auditors independently review information systems on EdCo contracts, and report back to senior management. Therefore it is in both their interests to record performance data using the proposed log. The agent objected but later agreed at the following meeting to use the template on a trial basis.

After a number of months, the agent continued to use the weekly log and take calls directly from the listed EdCo lecturers and College administrators, resulting in more satisfactory response times. The minutes of a meeting noted that response times had improved. In

addition, it was also noted that the agent had used this type of weekly log in his dealings on another contract and with another client, and found that that it was effective.

Table 4.7 - Case 4 – Insurance Brokerage Contract – Written Contract ex post Situation

Written Contract Me	echanisms by Principal	Written Contract Incompleteness	Agent Response
Incentives	Information Systems		
Annual fee of €50,000 Increased experience to credibly tender for other similar contracts	Monthly meetings and written summary of legal claims	Extent of technical support unclear from contract – no reference to any direct communication from end users	Slow response

Table 4.8 - Case 4 - Insurance Brokerage Contract - Principal's Signals and Influence on Agent

Principal's Signals		Influen	Agent Response			
Time	Resource	Position	Information	Incentive	Mutual Interest	
Principal increases frequency of meetings	Principal introduces the weekly log as a management tool	Principal holds meetings in her own office	Agent views formal minutes of meetings as indicating a lack of satisfaction by the principal	Agent suffers a time penalty in attending more frequent meetings	Agent hears that the weekly log promotes interests of agent and principal	Agent adopts the weekly log Agent increases response time

Tables 4.7 and 4.8 display the case's written contract mechanisms and incompleteness and the arising signals and responses by the agent. This case supports the proposition that both written and unwritten contract mechanisms can be used to address ex post management challenges. The EdCo principal initially tried to broaden the interpretation of the written contract by proposing end users should communicate directly with the agent. This resulted in a slow response time from the agent. The principal then increases the frequency of the meetings, holds the meetings on her own territory, and proposes a weekly log to be completed by the agent. The weekly log signals her knowledge as a resource, since the log proves to be a useful management tool for the agent. Also, the increased frequency is a time signal, the formal minutes an information signal, while the holding of meetings in the principal's office displays a signal of her senior position in her organisation and in the contract relationship. These signals influenced the agent as information, incentive, and highlighting the mutual interest of the agent and the principal being better served by collaboration. Therefore, by using signals the principal influences the agent to widen the interpretation of the written contract terms and improve response times for the contract performance.

4.1.5 Case 5 - Cleaning Contract

The EdCo cleaning contract is performed by a private firm called CleanCo. This company provides routine and emergency cleaning, janitorial, and office bin emptying services to over thirty EdCo buildings. The cleaning services are tendered every five years by EdCo to a private cleaning company, and the current contract was in its fourth year with CleanCo. The contract benefits to EdCo are a physical environment sufficiently clean, free from litter and trip hazards, and supplied with toilet consumables to function as an educational institution. The contract incentives for CleanCo are the monthly payments amounting to some €2m annually, and the building of a reputation to support future tender bids. The contract information system comprises monthly audits, a complaints log, a labour hours report, and a monthly review meeting between the EdCo principal and the CleanCo agent.

Table 4.9 - Case 5 - Cleaning Contract - Written Contract $ex\ post$ Situation

Written Contract Me	chanisms by Principal	Written Contract Incompleteness	Agent Response
Incentives	Information Systems		
Annual fee of €2m paid in response to monthly invoices Increased experience to credibly tender for other similar contracts	Monthly audits and reports, a complaints log, and monthly review meetings	No contract clause to allow changes to hours or rates in response to budget cut	None

Table 4.10 - Case 5 - Cleaning Contract - Principal's Signals and Influence on Agent

Principal's Signals		Influenc	Agent Response			
Time	Resource	Position	Information	Incentive	Mutual Interest	_
Declared willingness to be personally available for informal discussions	Displayed confidence in negotiation skills in relation to her own organisation	Indicated that she had access to senior decision makers in EdCo		Agent sees benefits to her prospects by saving the contract	Agent hears that both the principal's and her interests are served by continuing the contract.	Agent respecifies contract tasks to reduce labour hours Agent renegotiates the reduced payments with her organisation, CleanCo

An issue of contract incompleteness arose when the EdCo annual cleaning budget was cut from €2m to €1.7m. The EdCo principal broke the news to the CleanCo agent at a monthly meeting. The principal noted that EdCo had demonstrably lost funding revenues, and had to cut budgets. The agent noted that since the contract had specified fixed tasks at agreed rates, there was no written contract mechanism to accommodate the budget reduction while meeting the required quality levels. Therefore, she was unable to commit CleanCo to such a significant change in the contract. The agent proposed that the contract continued to be implemented as originally agreed. However, the meeting noted that EdCo could not afford the budget to do so and that the written contract offered a clause to terminate the contract.

The principal proposed that it was in both their interests to discuss ways of continuing the contract on a reduced budget. She committed to be available to the CleanCo manager over the next few weeks to discuss matters in confidence and without commitments until a solution that would work for both parties could be found. If a solution could be identified, the principal would negotiate a reduced level of cleaning with EdCo. The principal and agent then agreed to meet informally on a weekly basis, and explore without any prior conditions how a solution might be found. Over a two month period a new set of tasks were specified to achieve a minimum quality cleaning with the lower budget. These were based on changing from out-of-hours working times to office hours cleaning times, and a focus towards the more heavily used areas of the buildings. In addition, an emergency response cleaning team was set up to handle incidents or address important areas overlooked by the new arrangements. Following this mutual informal agreement, both the principal and agent then approached and secured approval from their respective organisations, EdCo and CleanCo, to implement the new approach at the reduced annual contract budget of €1.7m per annum. Some months later, the monthly meeting noted the revised contract agreement and some positive indications for the service quality from the customer complaints log.

Tables 4.9 and 4.10 display the case's written contract mechanisms and incompleteness and the arising signals and responses by the agent. This case supports the proposition that both written and unwritten contract mechanisms can be used to address *ex post* management challenges. The EdCo principal and the CleanCo agent could not address the unforeseen problem of the budget reduction with the written contract. By highlighting her commitment to

be available for discussions, her readiness and seniority to re-negotiate the service levels with EdCo, and the principal sent time, resource, and position signals to the agent. The agent, observing these signals, appeared to be influenced by the change in tone of communication as an information signal that a solution could be found, and the incentive and mutual interest that such a solution would be beneficial for her, CleanCo, and EdCo.

4.2 INITIAL STUDY PROPOSITIONS

The analysis and findings of the five cases are summarised in Tables 4.11 and 4.12. Table 4.11 shows that in all five cases, the mechanisms of incentives and information systems exist in the written contract. However it also shows that all the cases considered had issues of incompleteness where the written contract specification did not provide a remedy for some service problem. Finally, Table 4.11 shows that when such service problems were raised by the principal, the agent had no written contract obligation to respond and usually did not respond. In each of these cases, having exhausted the written contract mechanisms, the principal issued signals to the agent. In most cases shown in Table 4.12, these signals were based on the principal's time, resources, and position. For example, the principal spent personal time, or showed a willingness to commit personal time to finding a solution. The principal displayed resources such as budget control, technical knowledge, social or negotiation skills. Based on changes in behaviour by the agents towards a positive response, in most cases it appears that the agents were influenced by the information, incentives, or mutual interest communicated in these signals. From these five cases it is possible to make a number of propositions which are show in Table 4.13.

In public contracts, the payment terms are usually fixed for the duration of the contract, and withholding a payment is a serious step potentially leading to an intolerable service disruption (Farneti and Young, 2008, p. 95) or a possible legal dispute (Bahli and Rivard, 2003, p.213). While it is possible for the principal to threaten to withhold payment as in Case 1, where the principal indicated that she would not pay the rent, this is difficult to implement in practice. For example in Case 5 where the EdCo cleaning contract budget was reduced, the agent was entitled to the original terms of the contract, and indeed there was a risk that the dispute would lead to the termination of the contract. Agents, then, do not have to respond to any actual changes in the incentives. However, in both cases the written contract incentives

were used as an opportunity to initiate a response from the agent towards providing a remedy. Summarising these findings into an initial proposition gives the following statement:

Proposition P0: A principal uses the written contract incentive as an opportunity to promote a response from the agent.

From this initial proposition, it is clear that principals require other means to induce responses. As the written contract incentives provide only opportunities, principals rely less on the contract incentives or payments and more on the contract specified information systems to manage *ex post* responses by the agent. For example, in Case 2 the principal relies on the information reports to make service improvements, in Case 3 the principal uses financial turnover figures to support the argument for improved staff behaviour, and in Cases 4 and 5 the contract logs were noted as reliable indicators of the contract effectiveness. In Cases 2, 3, 4 and 5 the agents note and respond to some positive degree to the information system.

Table 4.11 – Summary of Written Contract ex post Situations

Written Contract Mechanisms by Principal		Written Contract Incompleteness	Initial Agent Response	
Incentives	Information Systems	•	Unsatisfactory	
Case 1	Case 1	Case 1	Case 1	
Case 2	Case 2	Case 2	Case 2	
Case 3	Case 3	Case 3	Case 3	
Case 4	Case 4	Case 4	Case 4	
Case 5	Case 5	Case 5	Case 5	

Table 4.12 – Summary of Principal's Signals and Influence on Agent

Principal's Signals		Influence of Signals on Agent			Subsequent Positive	
Time	Resource	Position	Information	Incentive	Mutual Interest	Agent Response
Case 1		Case 1	Case 1		Case 1	Case 1
Case 2	Case 2			Case 2	Case 2	Case 2
Case 3	Case 3	Case 3	Case 3	Case 3	Case 3	Case 3
Case 4	Case 4	Case 4	Case 4	Case 4	Case 4	Case 4
Case 5	Case 5	Case 5		Case 5	Case 5	Case 5

Collecting these findings into a formal statement gives the following proposition:

Proposition P1: A principal relies on the written contract information system to promote a response from the agent.

As complex contracts are unavoidably incomplete (Williamson, 1999, p. 1089), unforeseen situations arise during the *ex post* implementation stage to which the designed contract fails to provide an agreed management mechanism, and some non-contractual agreement must be struck to allow the benefits of the contract to continue to the agent and the principal. As successful projects contribute to a manager's track record in the organisation and affect promotion prospects (Bowers, 1970, p. 303), the principal has opportunity to demand additional responses from the agent to remedy the contract incompleteness and implement a more optimal solution. This is evident in all the cases. Case 1 shows that absent a written contract definition of structural repairs, the principal persuades the agent of the obligation to immediately attend to internal redecorations. In Case 2, although the written contract does not specify a single client representative, the principal convinces the agent to implement a new contract reports system. Despite no written contract clause to remedy poor staff behaviour, the principal in Case 3 succeeds in getting the agent to agree to dealing with a difficult

situation and improve customer service. In Case 4, despite initial disagreement regarding the required level of technical support, the principal obtains from the agent improved response times and a new complaints and issues log report. Finally, in Case 5, without a written contract mechanism, the principal succeeds in agreeing with the agent the provision of a new arrangement with reduced budget and reduced cleaning hours.

Putting these findings as a formal proposition gives the following:

Proposition P2: A principal uses the incompleteness of the written contract as an opportunity to promote a response from the agent.

Having formed these propositions in relation to the written contract, additional propositions may be made in relation to the unwritten contract.

Spence (1973, p. 654) proposes that spending interpersonal time and demonstrating willingness to spend interpersonal time with the other party functions as a signal communicating commitment, and greatly assists resolving disputes. In all the cases discussed above, there are examples of signals comprising the expenditure of the principal's time which influence the agent. For example, in Case 1 the principal's senior manager takes time to personally call the agent. In Case 2, the principal meets the agent informally over coffee to discuss the contract issues. In Case 3, the principal devotes additional and personal time to writing a report that could have been provided by the agent. In Case 4, that principal increases the frequency of the contract meetings at a personal time cost to herself. Finally, in Case 5, the principal declares her personal availability for informal discussions with the agent without demanding any commitments from the agent. These time expenditures are not strictly functional, as the communication could have been made briefly through a less personal method such as an email or letter. However, the time cost and the conveyed willingness to spend time gives the signal its power to influence and promote a response. As there were alternative communication means available for the message, these time costs would have been evident to the agent.

Summarising these findings into a proposition gives the following:

Proposition P3: A principal uses visible non-functional expenditures of time as a signal to promote a response from the agent.

In addition to the expenditure of time, the principal may use the demonstration of some costly attribute as a signal such as his control of the contract budget, technical or contract management expertise, or social and negotiation skills appropriate to the contract environment (Banker and Hwang, 2008, pp. 310, Lawrence *et al*, 2005, pp. 185). The demonstration of the possession by the sender of some relevant costly resource gives influence to their signal. For example, in Case 2, the principal highlighted her control of the central waste contract budget as well as her technical knowledge of recent waste management regulations. In Case 3, the principal demonstrated her business and management knowledge in writing the canteen management proposal. In Case 4, the principal introduces the agent to a weekly log as a management tool for monitoring operations. Finally, in Case 5, the principal displayed confidence in her ability to negotiate the acceptance by her organisation of reduced levels of service, which subsequently proved successful.

From these findings a proposition may be formed:

Proposition P4: A principal uses his resources such as budgets, expertise, or negotiation skills as a signal to promote a response from by the agent.

The principal may use their access to figures in a senior management position as a signal. For example, the attendance at events by a leadership figures is a strong signal of support for that event (Spence, 1973, pp. 653 - 654). This is evident in Case 1 where the principal asks her senior manager to telephone the agent. Also in Case 3, the principal successfully invites her senior management and the agent's senior management to attend the same fund-raising event. In Case 4, the principal indicates that she represents the position of senior management by requiring the agent to attend her office for the contract meetings. Finally, in Case 5 the principal, by displaying confidence in her ability to agree a change in the contract service level, highlighted that she had a relationship of influence with senior management positions in her organisation.

Summarising these findings into a proposition gives the following:

Proposition P5: A principal uses his relationship with positions of organizational leadership as a signal to promote a response from the agent.

The above propositions deal with signals by principals based on some costly expenditure or attribute of the sender. Rational informed receivers respond positively if the signal

expenditures are observable, even if not perfectly so (Milgrom and Roberts, 1986, p. 797). Therefore, in observing the principal's actions or attributes, the agent is influenced to respond positively. Some propositions may be now formed in relation to the agent's observations of such signals and their influence on the agent's response.

A change from the usual means of contract communications to more formal means of communications, such as writing letters, can be a signal of dissatisfaction with performance (Nikander and Eloranta, 2001, pp. 387 - 388). Therefore agents will likely view any changes in communication methods by the principal as signals conveying information or dissatisfaction about the agent's performance. As continued unsatisfactory performance will lead to dispute, it is in the agent's interest to respond in some measure to such information. For example, in Case 1, the agent observes the principal stopping discussion and sending him an email. In Case 3 the agent observes a change towards more formal communication on the receipt of a letter from the principal. This is viewed as a signal and is instrumental in influencing the agent to respond by addressing the poor staff behaviour. In Case 4 the agent notices that the relatively informal contract meetings are changed to meetings with formal written minutes. In each example, the agent is conscious of unsatisfactory performance and is influenced in part by the signal to respond.

These findings lead to the following proposition:

Proposition P6: An agent views a change to formal communication as an information signal requiring a response.

The persistence of spending time is a signal of interest that is widely recognised due to the shadow value of time (Spence, 2001, p. 432). Activities, such as lobbying or demonstrations, which impose intensity of interest and time costs on decision makers, are signals which act as incentives to focus the receiver's attention (Spence, 1973, p. 660). Therefore, requiring a party to repeatedly meet and discuss an issue both imposes a time penalty and signals an incentive to resolve the matter. Such repeated discussions may also have a positive intention. A principal sends signals to incentivise the agent's performance by reinforcing their self-confidence in their ability to complete the task, and highlighting how a good performance will improve the agent's future prospects (Bénabou and Tirole, 2003, p. 491). Therefore additional or repeated meetings may be observed as an incentive or a penalty signal depending on the context. For example in Case 2 the additional informal meetings drew the

agent's attention to the importance of the proposed waste reduction project and the resulting benefits to her company's regulatory targets. In Case 3 the additional meeting at a fundraising event allowed the principal make positive comments to the agent's senior management which gave him an incentive to deal with the difficult issue of poor staff behaviour. In Case 4, the additional meetings imposed a time penalty on the agent and incentivised improved response times. Finally, in Case 5 the additional meetings alerted the agent to the benefits to saving the contract, and provided an incentive to re-design the contract services levels to fit the reduced budget. In each case, the agent's attention is focussed on an issue by the additional meetings, and draws from these an incentive to respond.

These findings may be stated as a proposition:

Proposition P7: An agent views an additional meeting as an incentive signal requiring a response.

A shared sense of non-legal, social obligations support contract outcomes (Macneil, 1974, pp. 785 - 788) and demonstrations of willingness to work through difficulties signals mutual interest which greatly assist resolving disputes (Spence, 1973, p. 654). Parties to a contract are motivated to find solutions to difficulties by actions which evidence a sense of mutual interest. In Case 1 the agent received a telephone call unusually from the principal's manager, who highlighted concern that the difficulties would affect both their reputations. In Case 2 the agent heard during informal meetings how the proposed contract changes would improve outcomes for both their organisations. In Case 3 the agent observed the principal highlight to his senior managers the expected benefits of the contract. In Case 4 the agent got an explanation of the benefits of the proposed weekly log to both their standing. Finally, in Case 5 the agent heard how avoiding termination of the contract was in both their interests. In all these cases the agent observed the principal's willingness to work through the contract difficulties and responded positively to these signals of mutual interest.

These findings may be summarised as the following proposition:

Proposition P8: An agent views a demonstration of willingness as a mutual interest signal requiring a response.

Based on the above findings and propositions an improved second conceptual model may be constructed.

 $Table\ 4.13-Initial\ Study\ Propositions$

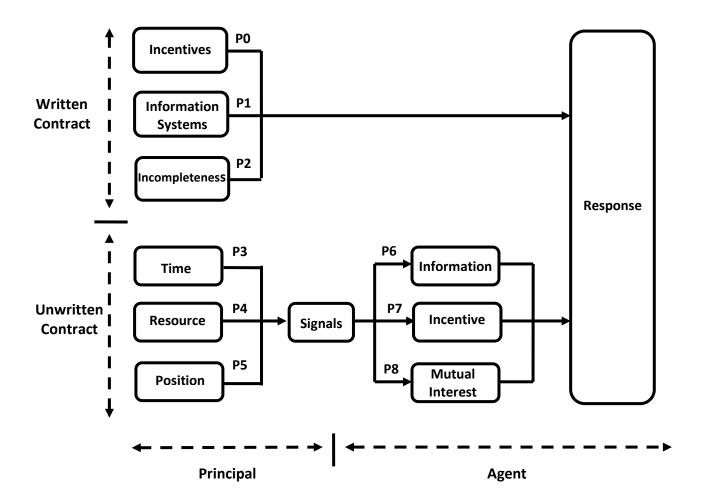
No.	Proposition			
P0	A principal uses the written contract incentive as an opportunity to promote a response from the agent.			
P1	A principal relies on the written contract information system to promote a response from the agent.			
P2	A principal uses the incompleteness of the written contract as an opportunity to promote a response from the agent.			
Р3	A principal uses visible non-functional expenditures of time as a signal to promote a response from the agent.			
P4	A principal uses his resources such as budgets, expertise, or negotiation skills as a signal to promote a response from by the agent.			
P5	A principal uses his relationship with positions of organizational leadership as a signal to promote a response from the agent.			
P6	An agent views a change to formal communication as an information signal requiring a response.			
P7	An agent views an additional meeting as an incentive signal requiring a response.			
P8	An agent views a demonstration of willingness as a mutual interest signal requiring a response.			

4.3 SECOND CONCEPTUAL MODEL

Bowers views a theory building research strategy for real world problems as describing the forces that affect the process, seeking patterns from the data and theory, to derive other findings and an improved model of the process (Bowers, 1972, pp. 25 - 26). The first conceptual model of *ex post* contract management (see Figure 2.4) was based on the literatures of the written and unwritten contracts and proposed that public contracts to private firms comprise two forms, the written contract and the unwritten contract. The written contract offers the agency theory management mechanisms of incentives and information systems. The unwritten contract emerges due to the contract and offers signals as the management mechanisms. These signals may be viewed from the perspectives of the psychological contract or information economics. This Initial Study set out to investigate *ex post* mechanisms from the economics perspective to address the research questions and improve the conceptual model.

Based on an economics perspective of the written contract and of signals, five cases of public contracts were investigated. From the findings and the resulting propositions, a more detailed framework of ex post contract management mechanisms can now formed, and this is shown in Figure 4.1. In this model the written contract mechanisms influencing agent towards the contract goals comprise the incentives, such as payment or penalties, and the information systems, such as site meetings. As the incentives are relatively fixed, the principal relies primarily on the information systems to induce a response from the agent towards improved performance. As the written contract is inevitably incomplete, unforeseen contingencies arise such as a lack of remedies, poor performance due to contract interpretation, or a reduction in the contract budget. The principal appeals to the agent to respond by contributing to a solution, endeavouring to use the contract incompleteness as an opportunity to induce a response from the agent. In parallel with these mechanisms, the principal also makes use the unwritten contract through demonstrations or signals. These are based on his non-functional expenditure of personal time with the agent, his control of resources such as the contract budget, his expertise, or his social and negotiation skills, and his access to positions of organisational leadership. The agent observes any or all of these behaviours by the principal, and will interpret them as information signals, incentive signals, or mutual interest signals. Based on his interpretation he is influenced to some degree towards a response to provide a solution to the written contract incompleteness.

Figure 4.1 - Second Conceptual Model of ex post Public Contract Management



4.4 TOWARDS THE NEXT PHASE IN THE RESEARCH

There are a number of limitations of the Initial Study. It is an exploratory study based on a limited sample of empirical cases using an inductive theory building approach aimed at developing a more detailed conceptual model. It also uses an information economics definition of signals as the expenditure of human time in non-functional activities to convey information (Spence, 1973, p. 654).

However, the Initial Study contributes an understanding of the dual aspect of the incomplete written contract. While incompleteness presents challenges to both the principal and agent,

and indeed may actually threaten the continuance of the contract, incompleteness is shown to also be an opportunity for the principal to seek additional responses from the agent thereby potentially optimising outcomes. The Initial Study also identifies categories of signals sent by the principal, and categories of influences on the agent based on his observation of such signals. Finally, the Initial Study suggests that outcomes from contracts may, due to incompleteness and the arising management mechanisms, not entirely conform to those originally specified in the contract.

Recall the research questions (see Table 1.2) which ask how and why managers use *ex post* contract management mechanisms, and lead to a research objective of whether a conceptual model of such mechanisms can be developed. The contributions of the Initial Study allow some answers to be made. How managers use mechanisms is through a combination of those offered by the written contract, negotiated responses arising from the contract incompleteness, and signals based on non-functional behaviours, resources, and access to organisational position. Why managers use this approach is due in part to unforeseen contingencies not covered by the written contract, or perhaps because incompleteness may offer the principal potential opportunities to elicit additional responses from the agent. Finally, it is possible to develop a conceptual model of these *ex post* mechanisms.

This goes some way to explaining the research problems (see Table 1.1) which were that public contracts do not sufficiently address contingencies, have outcomes which differ from those specified in the contract, and do not promote working relationships which encourage collaborative solutions. This Initial Study finds that public contracts may not sufficiently address *ex post* contingencies since incompleteness in the written contract may allow principals to create additional responses from agents and more flexible contract outcomes. Such a situation would also explain why public contract outcomes differ from those specified. This may be because the final outcomes are those which address unexpected contingencies rather than those specified in the contract. Finally, the third research problem proposes that public contract relationships do not foster collaborative solutions. The cases examined suggest that collaborative solutions were in fact usually achieved contrary to the problem statement.

However, the Initial Study shows that further research is required to better understand how these collaborative solutions are reached. While perfunctory performance to the letter of the

contract is enforceable, consummate performance is not, and optimum outcomes depend on the parties being happy to perform to the spirit of the contract (Hart and Moore, 2008, p. 3). How do parties become happy to perform to the spirit of the contract? The data in the Initial Study was collected from archival materials held by the principals of the contracts, and may not sufficiently highlight the perspectives of the agents. At the heart of collaboration is the notion of willing voluntary effort. As discussed earlier in the literature review, this can be better understood in the context of the psychological contract applied to the principal agent relationship. Having established in the Initial Study through the economics perspective that both agency theory and signals are used in *ex post* contract management to achieve optimum outcomes beyond that of the written contact, the psychological contract perspective may now be used to more fully understand how parties are willing to perform to the spirit of the contract, and improve the conceptual model of what constitutes desirable performance. This is the focus of the required future research, and the subject of the Main Study.

CHAPTER 5 - MAIN STUDY

This chapter describes how the Main Study was conducted, the analysis, the findings, and a review of the Initial Study propositions.

5.1 MAIN STUDY OVERVIEW

The study comprises an investigation of two public contracts between a public sector client and a private contractor in the *ex post* stage. Two cases were selected using three selection criteria. The first was that the case contract was a publically tendered contract between a public body and a private supplier firm, and in its post tender stage. The second criterion was that the cases collectively provided a basis of theoretic sampling to develop a conceptual model through their similarities and differences. The final criterion was that the actors to be interviewed, that is the principal and agent, represented their organisations with final responsibility for the cost and service outcomes of the contract.

Using web sites of third level institutions, a number of potential cases were identified to provide theoretical sampling, leading to two cases being selected and named Case A and Case B. Both these cases were contracts that had followed a public procurement tender process, were in now in their *ex post* implementation stage, and concerned service contracts likely to require continuous monitoring and adjustment by the principal and the agent. Case A was a cleaning service and primarily a function of manual tasks by a relatively large number of operatives. Case B was a sophisticated information technology system, developed and maintained by a relatively low number of knowledge workers. It was felt that these similarities and differences would provide richer data and better support the development of the conceptual model.

To negotiate access, telephone calls were made first to the contract principals outlining in general terms the requirement of the research. Without detailing the research objectives, it was explained that the intention was to conduct two interviews, one with the contract principal and the other with the contract agent. It was explained that the research was being conducted under academic supervision as part of a Dublin City University Business School doctorate, and that all results would be confidential. Having got agreement from the principal, I then made a similar approach to the agent explaining that the principal had already given

agreement. Following agreement on the telephone, a letter with the current revision of the DCU *Certificate of Consent to Participate in the Research Study* were sent with a copy of the questionnaire to encourage considered replies during the interviews. The success or failure of interviews to reveal the process of business management depends less on interview questions but more on the stories told at the interviews (Piore, 1979, p. 561). Therefore while the interviews followed a prepared questionnaire, the interviewees were not interrupted during their replies and allowed to follow their own train of thought. The interviews were recorded on a Philips LFH0617 device, which allowed slow speed playback to facilitate re-listening and accuracy in transcribing. Case A interviews took place during August 2011. Due to postponements by the principal, Case B interviews did not take place until 2013.

5.2 ANALYSIS

Appendix I shows the interview questionnaire and selected excerpts from the interview transcripts describing the case written contracts. The first step, to preserve confidentiality, was to remove all person and place names and substitute capital letters for these, for example all references to the principal's and agent's names were removed and replaced by P for principal, A for agent, MP for principal's contract manager, and MA for agent's contract manager. The analysis comprised an initial analysis of the transcripts, the development of codes for a detailed analysis, and a final analysis based on these codes. These are discussed in turn.

5.2.1 Initial Transcript Analysis

The analysis began by arraying the interview transcripts in rows showing the questions posed adjacent to the responses of the principal and agent. Each case had the individual responses of the principal and agent shown side by side against the text of the relevant interview question. To allow clear reference the Case A transcript was given page numbers A-1 to A-33, and the Case B page number B-1 to B-22. When referring to quotations, it was decided to highlight these as PA for the principal in Case A, AA for the agent in Case A, PB for the principal in Case B, and AB for the agent in Case B. The transcripts highlighted the different perspectives of the parties to the same questions. Next the transcripts were read through several times and

memos written against data items as they stood out for consideration. This initial analysis to establish a general understanding of the principal and agent perspectives resulted in two initial documents comprising of over 11,000 words for Case A and some 6,000 words for Case B. Based on this initial transcript analysis, an overview of each case was formed. Both Case A and Case B transcripts had excerpts which allowed basic information to be placed under the headings of the written contract incentives and information systems, the contract incompleteness, and a potential unwritten contract.

For example in Case A the agent identifies the written contract incentive stating that the annual contract value 'was €140,000' (AA, p. A-4) while the principal identifies the information system saying 'they meet formally on a monthly basis' (PA, p. A-12). The contract appears incomplete as the principal notes that 'the contract has grown' (PA, A-4). Finally, there appears to be an unwritten contract relationship based on mutual obligations since the agent says that 'if there is an additional requirement for anything extra, we have to try and do that' (AA, p. A-19).

Similarly in Case B the written contract incentive is noted by the agent as '€56,000' (AB, p. B-2), and the information system is described by the principal as a 'once a year ... review' (PB, p. B-12). The principal is aware the contract is incomplete due to 'things we hadn't thought of in the original contract' (PB, p. B-5), and the relationship makes up this deficit since the agent notes that 'because we have this on-going relationship we are willing' (AB, p. B-18).

As the initial analysis indicated that both cases show evidence to support written contract incentives, written contract information systems, contract incompleteness, some form of psychological contract based on reciprocal obligations, a more detailed analysis could begin using coding. This is now described.

5.2.2 Coding and Final Transcript Analysis

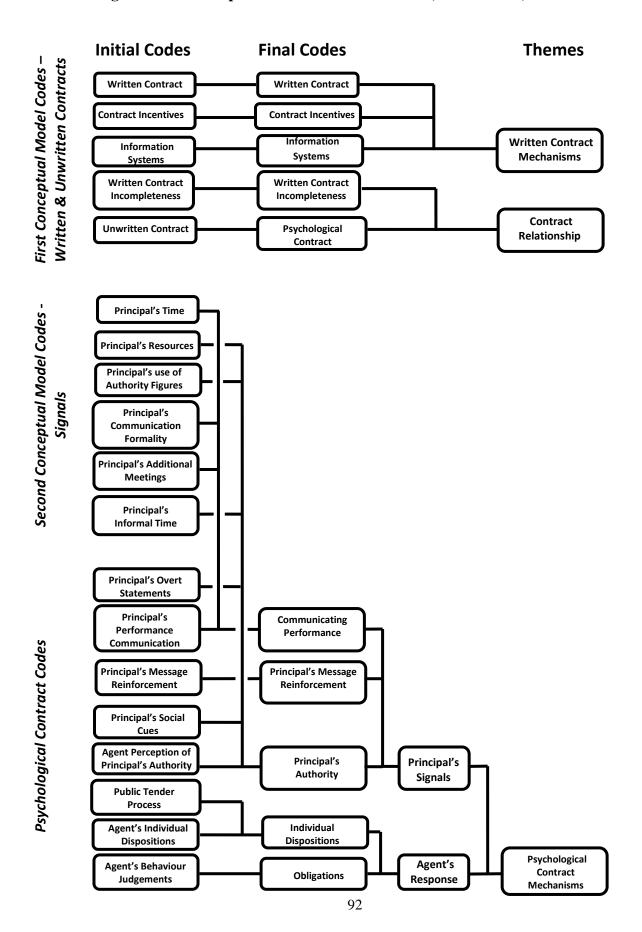
Following the initial transcript analysis, the texts were coded. Hseih and Shannon (2005, pp. 1281 - 1283) recommend that when the research goal is to extend a conceptual framework or theory, the researcher should use existing theory to determine the initial coding categories, then determining operational definitions from the theory to further refine, extend, and enrich

the theory. Miles and Huberman (1994, pp. 58 - 63) suggest that starting codes may come from the conceptual framework and this approach was taken using the main terms as labels and adding an additional 'other' label to capture data not defined by the existing codes. The initial codes were drawn from labels of the first and second conceptual models (see Figures 2.4 and 4.1) together with the psychological contract signals communication model (see Figure 2.3). In all, nineteen initial codes were used to analyse the transcriptions, five from the first conceptual model of the written and unwritten contracts, six from the second conceptual model of signals, and eight from the formation of the psychological contract. Starting with these initial codes, the texts were coded and re-coded for several iterations following a development shown schematically in Figure 5.1, to arrive at the final codes tabulated in Table 5.1. Over these iterations, codes began to settle into clear categories, until some codes were merged into others, and no new codes emerged and final codes were established. The process required re-reading of the literatures to clarify the nature of the individual codes in the light of interviews themselves. In summary, the codes are a product of literature concepts and the interpreted meanings of the principal and agent interviewed in the context of their management of contracts. This process took several months before clarity in the themes and the codes were finalised. These final codes and themes were then used to analyse the transcripts, picking out quotations of relevance, and interpreting these using memos inserted into a page column adjacent to the excerpt. From this the analysis was completed and the findings detailed. This is the subject of the next section.

Table 5.1 – Themes and Final Codes

Theme		Final Code	Code Label	Examples
Written Contract Management Mechanisms		Written contract	WC	Minimum standards of the contract service for the agreed payments
		Contract incentives	IBP	Incentives or penalties such as contract payments for work done
		Information systems	IS	Contract specified audits or meetings.
Contract Relationship		Written Contract Incompleteness	WCI	Contingencies requiring extension of the original contract
		Psychological Contract	PC	Demonstrations of reciprocal obligations
Psychological Contract Management Mechanisms	Principal's Signals	Performance Communication	СР	The principal communicating the required performance standards through additional meetings or more formal communications
		Message Reinforcement	MR	The principal reinforcing the message through the compensation system such as reviewing invoices in light of work done
		Authority Display	A	The principal demonstrating power, capacity, and support of the organisation to make the contract
	Agent's Response	Individual Disposition	ID	Agent's cognitive bias and focus on information relevant to interests or prospects such as attention to the principal's mood or likely positive consideration of future tenders
		Obligations	ВЈ	Agent's decision on his required actions to fulfil his perceived obligations under the contract, for example decisions to perform additional unpaid works

Figure 5.1 – Development of Codes: Initial Codes, Final Codes, and Themes



5.3 FINDINGS

Based on the analysis using the developed codes and themes of the written contract and the psychological contract, the findings are now discussed. From the development of the codes, a number of themes emerged which may be used to order the discussion. These are the written contract mechanisms, the written contract incompleteness andthe contract relationship, and the unwritten contract mechanisms. The findings are now discussed taking these headings in turn.

5.3.1 Written Contract Management Mechanisms

Appendix II shows selected interview transcript examples from Case A and Case B concerning the written contract mechanisms coded as the contract incentives and the contract information systems. The findings in relation to the written contract management mechanisms are discussed under the headings of incentives and information systems, and these mechanisms are identified as important resources to enable the contract response by the agent.

5.3.1.1 Written Contract Incentives

The contract incentives are the payments to the agent for the contracted service. The written contract offers three incentives, the payments, the security of those payments, and the contract client or location. In Case A the agent states that the annual contract value 'was €140,000' (AA, p. A-4). The agent stresses that 'having...a three year contract with an option for a further year....it's nice to know...you are going to get paid at the end of every month' (AA, p. A-10). As the principal summarises, 'they are dealing with a public body...it's a regular payment, it's not something that going to go to the wall tomorrow' (PA, p. A-10). The agent confirms this saying 'it's very nice to know that you're undertaking a job that you know you are going to get paid for at the end of every month... with private sector work you don't have that guarantee' (AA, p. A-10). Also, the contract brings his company towards the aspiration of having a larger campus contract. He says 'we don't have a large third level institution, what we would see in a large campus type contract' (AA, p. A-5). In addition, the location is convenient, as the agent puts it, 'the great benefit of it is that it's the centre of the

city...I have a large management team in centre of the city' (AA, p. A-5). Finally, he notes that 'It's great to have government work and you can use some contracts as a reference, whether it be for an educational institution, or the public authorities which often have very sensitive areas, that you can show that you've got good security in place for your staff, and vetting for your staff' (AA, p. A-11).

In Case B the agent puts the contract value as '€56,000 ... cost of providing and developing the software and the annual support ... about €12,000 to €14,000 (AB, p. B-2). A significant benefit is the development opportunity through the contract. The agent says 'apart from the fact that they are flagship, we would learn things from the fact that it's a veterinary hospital using the system while in practice the needs are somewhat different' (AB, p. B-8).

In both cases the written contracts incentives are evident as those specified. However, there are additional incentives present to the agents. For example a public contract offers security of contract payments, a potential reference in seeking other contracts, and an opportunity to acquire knowledge.

5.3.1.2 Written Contract Information Systems

The information systems are the ways the principal monitors the contract for the appropriate performance. In Case A the written contract information systems comprise monthly site meetings where an inspection or audit of the cleaning service outcomes is done, followed by a discussion and a written audit report. The principal highlights that 'though they meet formally on a monthly basis, they would be in contact via email around issues' (PA, p. A-12). The agent explains that 'the monthly information meeting between the managers is the information system' (AA, p. A-9) as well as 'our fortnightly walk arounds on our audits' (AA, p. A-26).

In Case B the written contract information system appears limited to an annual review, about which the principal notes 'I think we said that periodically once a year we would review it and we are to have one of those meetings quite soon' (PB, p. B-12). However, an informal information system based on discussing incidents is important as the principal says 'another incident where we need communicate ... our concerns over this issue' (PB, p. B-13). This enables remedies and development of the system as explained by the agent 'we are all

interested in progressing the system's ability and to meet as many people's requirements' (AB, B-5).

While both Case A and Case B show defined monthly or annual meetings as the contract information system, there is some ambivalence by both the principal and the agent towards the extent of the information system usefulness. In parallel with the formal information system there are informal information systems which are significant in moving the agent towards a useful response.

5.3.1.3 Written Contract Mechanisms as a Resource

While the incentives or payments provide the necessary funding to enable the agent's provision of the contract service, the information systems are also a useful resource enabling the agent to allocate effort towards issues of importance and use resources more efficiently. Therefore the principal's incentives and information systems are the primary contract resources provided to the agent in exchange for the agent's specialised services. In Case A, the agent highlights that the contract budget determines the payroll for the cleaning service saying 'it's the payroll ... the manager has a certain number of hours per week, per building' (AA, p. A-18). In return for the principal's contract resources of the information and the budget, the agent exchanges his specialised services and human resources. He notes that 'our contract managers ... can provide that service, that knowledge, to do the job' (AA, p. A-20). The contract resources provided by the principal are also an important factor in Case B. Here the agent refers to the principal's information saying that 'what we have provided meets their needs pretty well, but certainly from time to time they might say we would like be able to do x, y, and z' (AB, p. B-26). In return for the principal's contract payment and information on special requirements, the agent is enabled to provide solutions. He states that 'we obviously had the knowledge, the workings of the operation there, which an operation of that size, tends to be somewhat unique' (AB, p. B-4).

Therefore the written contact *ex post* mechanisms serve primarily as a contract resource provided by the principal to enable the agent have the necessary budget and information to provide a service in an efficient way. How the agent provides the service is intended to suit the needs of the principal. The resulting remedy may differ from that specified in the written

contract, or indeed may be missing from the contract specification due to incompleteness. The concept of *ex post* written contract mechanisms as a resource is a useful finding in understanding why public contract outcomes may differ from those specified.

From the statements of the principals and the agents it is clear that the written contracts are incomplete and require informal communications to ensure the required outcomes. The next section examines data in relation to this written contract incompleteness and the resulting relationship from the perspective of the psychological contract.

5.3.2 Written Contract Incompleteness and Relationship

Complex written contracts are inevitably incomplete and some form of relation governance is used to manage such contracts. In both Case A and Case B, the principals and agents speak of a contract relationship which fills the gaps arising from an incomplete written contract and develops the quality of the service. Appendix III shows selected interview transcript examples in relation to the written contract incompleteness and the psychological contract. The findings in relation to the contract incompleteness and the relationship are now discussed before summarising the all the findings of the written contract themes.

5.3.2.1 Contract Incompleteness

There are examples of incompleteness of the written contract in both cases. In Case A, the principal specifies the cleaning services in terms of the outcomes to be achieved rather than the tasks or inputs, highlighting 'the minimum frequency in cleaning...based on an outcome basis that everywhere has to be to our standard with absolute minimum frequency' (PA, p. A-6). She adds that 'if there were areas which may need levels of service or specific events happening ... our contract supervisor would liaise with the manager of the cleaning company' (PA, p. A-6). She also indicates that the contract is designed to be incomplete saying 'I think a too-detailed document can become a bit of a weapon between the two parties' (PA, p. A-8). This has led to additional requirements being agreed after the original contract. The principal notes these changes saying that 'but the contract has grown over that period as buildings came on stream' (PA, A-4) and that 'we're actually working on devising a whole measurement of KPI's' (PA, A-30). The agent notes this contract incompleteness

saying 'bits of it came on in different parts' (AA, A-3). The requested additions are acknowledged by the agent as a burden saying 'if there is an additional requirement for anything extra, we have to try and do that within those hours ... there is no additional resources, financial resources, to carry out the job' (AA, p. A-19). However, like the principal, he sees the incompleteness as supporting efficiency and a positive example over other public contracts. He says 'if it was run like some other government contracts ... it wouldn't happen' (AA, A-10). While the contract is obviously incomplete, the *ex post* flexibility, despite its burden, seems to offer flexibility and benefits to both parties.

In Case B, both the principal and agent initially state that the contract as complete, with sufficient clauses to address contingencies. For example the agent states that 'there hasn't been a whole lot that needed to be done other than changes within the contract' (AB, B-15). The principal also notes that 'it wasn't because of lack of completeness; it was only because of things we hadn't thought of in the original contract' (PB, p. B-6). However, both the principal and agent comment that much of the contract working is without reference to the written contract. The principal says 'I think there is a little bit in the contract about communications, but a lot of it is informal' (PB, p. B-7) and 'to be honest, I think people don't really look back at the contract' (PB, p. B-8). She appears conscious of the difficulty in having a complete contract for such a system saying 'sometimes it was our fault ... we didn't understand quite how it works' (AB, p. B-7). Incompleteness is apparent in changes and additions to the contract that is required ex post. The principal gives examples where 'the anaesthetists wanted it in a different form for anaesthesia requests' (PB, p. B-6) and 'when we developed a new laboratory test which we have quite recently, then there needs to be an action to ensure that the link between the lab system and the VetServ happens' (PB, p. B-13). Also the principal expresses concern over the security of the IT servers saying 'this made us a little bit worried for the VetServ servers ... we need communicate to AB in VetServ our concerns over this issue (PB, p. B-13). The agent explains that in some cases additional charges are discussed saying 'they would ask how feasible that would be ...we would let them know that there would be a cost involved' (AB, p. B-15). He also notes his commitment to perfect the incompleteness saying 'we are all interested in progressing the system's ability and to meet as many people's requirements' (AB, p. B-6). This case offers findings that the contract is incomplete, and that this offers the principal means to address issues with flexibility, and allows the agent to develop the system's capability.

5.3.2.2 Contract Relationship

Both cases indicate that there are links between the written contract incompleteness and the development of a contract relationship which promotes service performance and offers potential safeguards from dispute to both the principal and the agent. Striving for a complete contract is held to be something to be avoided.

In Case A the principal favours the development of a relationship above writing a more complete contract. She says 'you build the relationship, because if you are solely relying on what's printed, the one thing you miss will be the one thing you need ... it won't be written down' (PA, p. A-7). The principal maintains that it is the relationship that ensures the contract quality saying 'I think it's absolutely essential to have a relationship between the client manager and the contract manger....if you don't have that ...the service will fall down' (PA, p. A-12). The agent takes a similar view saying 'the most important thing as far as I'm concerned is the relationship' (AA, p. A-12). He works to maintain this relationship saying 'I am available at any time to come in and see them' (AA, p. A-22). He maintains that his staff feel a close relationship with the client organisation saying 'the people who work for me on all the sites, very very quickly, they forget they work for CleanServ ... they feel that they work for the building' (AA, p. A-22). Case A supports the view that the contract relationship is felt to be a substitute for a complete written contract and a support for the service quality during the *ex post* stage.

In Case B the agent explains that the relationship with the principal is of importance to service delivery saying 'if there's a difficulty either side, having a point of contact like that is really useful ... I'd like to think that's an excellent relationship' (AB, p. B-10). The principal confirms this saying 'we do enjoy a very good cordial relationship ... that has been really instrumental in ensuring the success of the contract' (PB, p. B-11). She notes that there is a warm relationship between the agent and her staff saying he has a 'good friendly relationship with many staff on the ground, and he would go out of his way ... to help an individual with problems' (PB, p. B-11). She sees the relationship as helping the communication of the contract requirements saying 'if you lose that personal contact, that closeness, the relationship, then I think things just get put up with and we don't communicate our needs clearly' (PB, p. B-13). Finally, the principal associates the building of the relationship with the development of a successful contract service saying 'only when we went and investigated

and built up that relationship again, and spent a little bit of money in ensuring that our contract was such that we would be able to upgrade every year and would upgrade annually that that developed' (PB, p. B-14). The agent sees the written contract as insufficient, and may be valuably substituted by the relationship. He says 'I would like to think we have moved beyond the contract ... we have a very, very good working relationship with the College and its entire staff' (AB, B-6). Therefore this case also supports the finding that the contract relationship is felt to be a substitute for a complete written contract and a support for the service quality during the *ex post* stage.

Since parties to the above relationships exhibit perceived obligations linked to communications of future intentions (Morrison and Robinson, 1997, p. 228) and a concern for potential loses of the other party supported by behaviours (Rousseau, 1995, pp. 24 - 26) the findings support that the contract relationships are psychological contracts. While dependent on the written contract for its existence, its development is supported by the written contract incompleteness, and it may, in part, become a substitute for the written contract in defining how the parties behave. Finally, the emergence of this psychological contract offers security against potential disputes, and improves the quality of the agent's response. It is now possible to review the main elements of the written and psychological contracts from the findings.

Table 5.2 – Overview of Case A

Description	Written Cor	ntract Terms	Contract Incompleteness	Contract Relationship or
	Incentives	Information Systems	•	Psychological Contract
Three year cleaning service contract for university campus buildings Outcome-based contract Principal is a university support services manager. Agent is managing director of a cleaning services firm Positive working relationship over seven years through several public procurement tenders	Contract budget €140,000 annually paid monthly Contract extension possible subject to satisfactory performance City centre location allow agent to easily deploy his team Principal is potential referee to agent for future similar contracts	Monthly meetings and joint audits Emails following issues	Cleaning service extended post contract to other buildings Written contract designed to avoid 'too much detail' Principal's intention to upgrade the audit system to link performance with payments	Verbal agreements between principal and agent to extend service to new buildings and add audits linking performance with payments Additional services such as carpet cleaning, computer cleaning provided by Agent at no extra charge

Table 5.3 – Overview of Case B

Description	Written Cor	ntract Terms	Contract Incompleteness	Contract Relationship or	
	Incentives	Information Systems		Psychological Contract	
Contract for installation, initial training, minimum support, annual upgrade, and site licences for veterinary hospital management software Outcome-based or fixed price contract Principal is a university academic responsible for a veterinary hospital. Agent is managing director of an information technology consultancy firm	Contract budget initial payment of €56,000, and annual payment of €12,000 to €14,000 Contract extension possible subject to satisfactory performance	Annual review Communication over concerns	Software system extended post contract to include new reports for anaesthetists and integration with the other laboratory systems Additional meetings between parties to extend system capability Contract did not specify protection of IT servers, an essential requirement	Positive working relationship during this contract and the previous ten to fifteen years Parties meet to solve problems and do not look back to the contract to address issues Parties cooperate in conferences outside the contract terms Agent willing to make small changes to IT system at no extra charge	

5.3.2.3 Summary of the Written Contract Themes

From the above discussion, it is now possible to summarise the findings for Case A and Case B under the written contract themes, including the contract incompleteness, and the psychological contract, and these as shown in Tables 5.2 and 5.3 respectively. In both cases the contracts are clearly in the *ex post* phase and of importance to both the principal and agent. While the written contract incentives and information systems are easily identified,

there is significant contract incompleteness which is not regarded as undesirable, and indeed appears welcome to some extent by both parties. This written contract incompleteness gives rise to an unwritten or psychological contract where additional obligations are provided by the agent.

To more adequately analyse the mechanisms leading to the obligations and responses of the agent, it is now necessary to examine the contract relationship from the perspective of the psychological contract signals. The next section discusses the findings in relation to these.

5.3.3 Psychological Contract Management Mechanisms

Selected interview transcript excerpts are shown in Appendix IV which provides data of the psychological contract management mechanisms comprising the principal's signals of performance communication, message reinforcement, authority displays, and also the agent's individual dispositions. The agent's observation of the principal's signals together with the agent's individual disposition create the agent's psychological contract concerning his required obligations to the contract, and lead to behaviour judgements including additional unpaid work. These are grouped for discussion under the headings of principal's signals and agent's obligations.

5.3.3.1 Principal's Signals

A principal sends such signals to the agent to shape the psychological contract by behaving as the contract maker, communicating the required performance standards, reinforcing standards through the contract incentives, and displaying authority in relation to contract by showing he is supported by his organisation. These signals of performance communication, message reinforcement, and authority are now taken in turn.

5.3.3.1.1 Performance Communication Signals

Performance communication signals comprise time spent by the principal communicating performance in addition to the contract information systems. In Case A, the principal signals

performance issues to the agent by noting events in, what she terms, a formal manner. For example, she says 'if there is a problem that can't be dealt with at a supervisory level, then we would set up a formal meeting' (PA, p. A-27). She adds 'I would formally take the report from Security and send it to CleanServ so that it's actually documented' (PA, p. A-13). She creates formality by accompanying the verbal communication with a written record of the unsatisfactory event, and it is this written evidence which marks it as a signal. Verbal communication concerns routine operational matters, for example 'if it's a small issue it might be dealt with a phone call' (PA, p. A-13). However, she notes that problems are communicated using written communication saying that 'we try to deal with any actual complaint or anything that we think may be a problem via email at least so that there is some record' (PA, p. A-13). Additional formality to strengthen the signal is achieved by having a further meeting in a location owned by the principal and referring to the written contract. She explains 'I would believe in bringing them in for a formal meeting...on our territory rather ... and sitting down formally across the desk with the documents in front of me and deal with it in that manner' (PA, p. A-23). The agent is alert to the principal's performance signalling. All meetings with the principal are a performance signal to some extent. He notes that 'if I was meeting P to look at something new ... there would always be a conversation about how things are going' (AA, p. A-27). If the matter concerns a problem, the performance signal is clear. He says 'if there was a requirement or a problem, P would come straight on to me' (AA, p. A-13), adding that 'if P wasn't happy with services being delivered, or services being delivered were related back to P, and P came on the phone, she wouldn't put any gloss on it' (AA, p. A-23). He is aware that written communications from the principal signal a problem saying '...if they had a difficulty where their office wasn't being cleaned, they might send an electronic email to P, who would, in turn then, forward it on to our own office here' (AA, p. A-16). Such issues are met with prompt responses by the agent who says 'if something is highlighted it's addressed there and then, and it will be finished before the next meeting' (AA, p. A-7). Also, some written communications are positive signals. The principal highlights that 'any comment that would come back, positive comments, we would pass it on to them' (PA, p. A-27). This is important to the agent who says 'it's a lovely gesture ... very seldom does the cleaning staff get thanked for the job ... it's nice to get something positive' (AA, p. A-26). Therefore while performance signals frequently indicate dissatisfaction, the principal views more positive expressions as being important to maintaining the relationship. She says 'if you are too business-orientated and you don't build any relationship... if you are

too social ...that's not good business practice either' (AA, p. A-23). Such signals are also evident in Case B.

Performance communication signals in Case B comprise meetings that are additional to the regular contract information systems. The agent notes that 'the meetings are informal.... weren't part of the contract as such' (AB, p. B-6). He is alert to such meetings being performance signals saying 'if the client is there wanting something else, and we can't discuss it or aren't willing to discuss it ... then the client isn't going to be too happy' (AB, B-15). He views any reference to the formal written contract as a negative performance signal saying 'I would feel very worried if anyone started quoting the contract' (AB, B-8). The principal states that some performance issues are serious and require a formal meeting to be set up saying 'some of the cases weren't being counted correctly; we would certainly set that up' (PB, p. B-12). However she highlights that the informal performance communication is also important saying 'if you lose that personal contact ...we don't communicate our needs' (PB, B-13). She also sees effective performance communication as a balance between the formal and the informal saying 'I think a balance between the very friendly and the more formal written communication is an influence' (PB, p. B-18).

Therefore, the principal's performance signals comprise the principal devoting time to more formal communication, such as a meeting or written communication, to the agent, concerning a required response from the agent. The agent perceives some sense of obligation to respond positively to such signals.

5.3.3.1.2 Message Reinforcement Signals

Message reinforcement signals comprise actions by the principal consistent with reinforcing the contract requirements through the compensation system (Rousseau, 1995). In Case A the principal reinforces the unwritten contract through signals highlighting linkages between the contract and the payments. As the contract payment is fixed, the linkage is highlighted by audits of the work done and the additional comments appended to the audit reports. She explains that 'our supervisor would conduct a joint audit ... she would report back the results of that audit to me' (PA, p. A-8). The agent notes that 'the invoice goes to the Housekeeping; I presume P may sign it off' (AA, p. A-19). The agent links comments added to audits with

possibility of not getting paid. He says that 'if the building isn't up to standard, she's going to say it because she's not signing off on her fortnightly audit if ... it wasn't right.' (AA, p. A-28). However, he also welcomes the audit comments as a way of recognising his contract performance saying that 'by getting it signed and getting the comment onto the audit forms, both MP and ... P get to see us and the service we're providing' (AA, p.A-31). The principal plans to link more firmly the audit result with the contract payments saying 'so that we're auditing the whole operation and the value of the contract....so that no invoices will be paid until the product is correct' (PA, p. A-30). Therefore the principal's message reinforcement signals are intended by her to grow in influence.

In Case B the principal views the compensation system as reinforcing her message of the required level of service. She says 'I think the fact they know the budget is under the control of the Vet School rather than a contracts manager from some other part of the university means that they know ... we are looking at their service ...calibrates their service' (PB, p. B-15). She adds that the tender process is another message reinforcement saying 'I think that they know that they were nearly not awarded this contract ... there's that level of awareness' (PB, p. B-15). As in the previous case, the agent in Case B welcomes message reinforcement as recognition of his performance, and has implemented his own tracking system for the principal to review. He says 'we have implemented an IT system for tracking technical issues ... we can jointly review it' (p. B-21).

Therefore message reinforcement signals are found to be actions or systems, used by the principal, which link the agent's performance to the receipt of payments. These may be reminders of the tender process and carrying out audits to highlight that continued payment is conditional on satisfactory performance. Interestingly, in both Cases A and B, the agent values such message reinforcements as guaranteeing recognition by the principal, and perhaps securing further payments.

5.3.3.1.3 Authority Signals

Authority signals are actions by the principal which influence the agent's perceptions of the principal as having power, authority, or capacity to make the contract commitments. In Case A, the principal is conscious of her authority as contract maker. She sees operational matters

as issues to be delegated, noting 'some things are better left sorted out at a supervisory level (PA, p. A-20). Her authority supersedes that of her supervisor as she explains 'if ... it seems they're not listening sometimes to the supervisor, then if myself ... would step in ... and everything's right the next day.... that's the hierarchy isn't it, that's where the power is. It's the balance of power' (PA, p. A-18). She only deals with the agent as the other contract maker saying 'the set-up of the contract is normally done by myself and the owner of the company' (PA, p. A-2). She adds 'I wouldn't see many of the contractors that often' (PA, p. A-13). When she does meet the agent's staff it causes them concern due to their perception of her as an authority figure. She explains 'I went over and met with all the contract staff, and you could see they may have thought they were about to get the sack' (p. PA, A-28). The agent is conscious of the principal's authority as the contract maker. He only meets her in relation to contract matters saying 'never socially.... normally there's not a huge amount of interaction between myself and P ... it would be more so if there was a requirement or a problem, P would come straight on to me' (AA, p. A-13). He prefers issues to be resolved between the contract supervisors saying that 'because there is no escalation to P' (AA, p. A-18). Avoidance of escalation to P, the principal, he says is 'the most important thing... because after that it goes to the next stage and then there's a problem' (AA, p. A-19). His concern is that the principal, as contract maker, has the authority to start a new contract. He says '... the client would very soon say "this is not working and you could lose the business or we'll put it to tender"...' (AA, p. A-12). These findings show that the principal's authority signals are important influencers of the agent's responses.

In Case B the principal is aware that the winning of the contract budget and the approval to proceed with the tender process is a demonstration of her authority within her organisation and as the contract maker. She explains 'I think our ability to issue the tender and get that contract passed, where there had been no investment in this region, where the service provider had been told there was no money for upgrades for the last ten years, was seen as very influential and a demonstration by the university to the service provider' (PB, p. B-17). She is clear that her authority influences the agent saying 'I do have access to the Bursar, the President and the Registrar... I think the knowledge that that influence and access is present certainly has been an influence' (PB, p. B-17). She exercises this authority as the contract principal saying 'certainly there is a level of awareness of things that we know what we want and that we are going to be quite active in ensuring that we get it' (PB, p. B-16). As in the

other case, she reserves social interaction around contract matters to dealing with the agent. She notes 'I haven't been directly in contact with anybody really from the service provider's team except one member' (PB, p. B-21). The agent is conscious of the principal having significant authority saying 'I would go so far as to say that the person we are dealing with and others I suppose, has enough of, I hate using the word power, but power and respect within the organisation that they can get things done' (AB, p. B-10). He also regards her as the contract maker who influences his prospects in her organisation and potentially others, and needs to be kept happy. He says 'obviously you would want to keep someone happy if you know that they might influence a future contract ... the person we are dealing, I am sure has significant influence on the contract' (AB, p. B-16).

Therefore in both Case A and B, the principals give authority signals by having the budgetary support of their organisation, by limiting their social interaction to the agent rather than the agent's team, and by communicating their requirements of the contract. The agent is conscious of the principal's authority which is based on their control of the contract budget and their influence on the agent's prospects. Based on these perceptions, the agent is sensitive to any requirements of the principal and feels obliged to respond to these.

The above sections have discussed the findings in relation to the principal's signals as part of the psychological contract *ex post* contract management mechanisms. These signals influence the agent's response to make behaviour judgements based on his perceived obligations.

5.3.3.2 Agent's Obligations

The agent interprets the principal's signals based on his individual dispositions such as cognitive biases, including focusing on information directly relevant to one's own interest, and motives, such as how the job affects their long-term career. Having interpreted the signals as credible future intentions or promises, the agent will then make behaviour judgements regarding the standards of behaviour to fulfil his obligations to the principal under the psychological contract. The next sections discuss the individual dispositions and the behaviour judgements to decide the agent's perceived obligations.

5.3.3.2.1 Agent's Individual Dispositions

The agent's individual dispositions comprise cognitive biases and the focus on all information relevant to his prospects and interests, and these influence how he interprets the principal's signals.

In Case A, the agent indicates a predisposition towards providing high standards of service sometimes at his own expense, being focussed on keeping the principal happy and, in a sense, competing against other potential providers to retain the contract. He says 'there are no additional hours carried out ... subject to some charge...we have are our standards for a cleaning service' (AA, p. A-16). He is conscious of potential competition for the contract saying that 'if any customer ever needs me ... I am available at any time I am sure it's the same in other organisations as well' (AA, p. A-22). Keeping the principal happy influences retention of the contract and his prospects for future tenders. He says that 'the important thing is for ... the client to be completely happy that the service we're giving is the best that it possibly can be because they're going to relay that to the people in the organization that are making the decision' (AA, p. A-31). He wants to preserve his prospects for other public contracts noting that 'we are always very conscious that we don't want to have any confrontation because we have a number of public contract buildings' (AA, p. A-27). However he feels critical towards the public tender process saying 'the drawback is that it's exceptionally price competitive' (AA, p. A-10), and 'it's very hard to know if people are actually measuring like for like ... I think that there are major drawbacks in public procurement' (AA, A-11). He is also critical towards some management of public contracts saying 'once the contract is awarded, there doesn't seem to be much follow-through from the awarding authority. Where are the quality meetings? Or where are the reports?' (AA, p. A-8). Despite criticisms, the agent shows a disposition towards finding and retaining public contract work for his firm. He notes that despite 'the great thing about any work from any government contract is you never have to worry about getting paid. ... they pay on time' (AA, p. A-6), and 'with private sector work you don't have that guarantee' (AA, p. A-10). He adds that there is an additional incentive for winning public contracts saying 'the other benefit ... is the actual reference ... has government work and you can use some contracts as a reference' (AA, p. A-10). While the agent finds publically procured contracts competitive and offering low financial rates, he is disposed towards the benefits of the predictable payments and using the contract as a reference to seek other work. These individual

dispositions focus the agent's attention on keeping the principal happy by responding to her requests.

In Case B, the agent's disposition also includes the awareness of other potential competitors for his contract. He says 'obviously we were in competition with other providers as well. But I suppose our on-going relationship helped somewhat and the fact we knew exactly what it was we were looking for' (AB, p. B-4). He has a sense that his previous performance helped win the tender for the current contract saying 'we obviously had the knowledge, the workings of the operation there, which an operation of that size, tends to be somewhat unique' (AB, p. B-4). He has his own professional standards to maintain, particularly that of being approachable to the principal's team. He says 'we would like to feel that we have quite an easy manner ourselves and it reflects in all our conversations with all our clients' (AB, p. B-16). The agent also is conscious of the value of the contract as a reference saying 'the UniVet college is the qualifying college for all veterinary surgeons throughout Ireland and most of our customers have gone through there, and it is a flagship site for our business' (AB, p. B-4). He notes other benefits of the contract saying 'we find that there are other things outside of the relationship to do with the contract that are useful or beneficial to both parties' (AB, p. B-10). He adds 'we have discussions about other things that influence both our organisations ... I might ring up and ask, you know, what's the best organisation to phone in relation to this? Or, do you have any contacts in this organisation?' (AB, p. B-20). He seems confident that the current contract performance is satisfactory to the client saying 'I would like to think we have moved beyond the contract' (AB, p. B-4). He maintains if the principal's team continue to be happy with the service, his future tender prospect is good saying 'it's in their benefit rather than changing everything that they could continue with the relationship in operation assuming that they are quite happy with it' (AB, p. B-19). He feels that the principal or her team will make helpful suggestions to him in relation to the next tender. He says 'I would be hopeful that, come that time, we would be given a few hints here and there' (AB, p. B-18).

Therefore, the findings from both cases support individual dispositions of the agents comprising a desire to retain public contracts against competition, leading to a focus on keeping the principals happy with responses to signals for contract changes or additional work. The next section examines examples of behaviour judgements made by the agent to fulfil their perceived obligations.

5.3.3.2.2 Agent's Behaviour Judgements

The agent's behaviour judgements comprise his decisions on the actions required to fulfil his perceived obligations under the contract. Therefore, based on the psychological contract formed from the principal's signals and his individual dispositions, the agent decides what standards of performance are required beyond what is specified in the written contract to fulfil his perceived obligations, including additional unpaid work.

In Case A the agent notes that additional work requests are normal saying 'additional requirements and additional needs pertain to cleaning' (AA, p. A-7). However, some of his additional work is not requested by the principal, but undertaken voluntarily from some sense of perceived obligation. He voluntarily decides to perform extra tasks, initially during periods of low activity saying that 'things would be a little bit quiet during the breaks and we would do extra things like carpet cleaning and floor machine scrubbing that wouldn't necessarily be perceived as being part of a contract' (AA, p. A-6). He does not invoice the principal for these additional services saying 'we might say clean computers or shampoo the carpets, which some people would see as an extra or additional chargeable job, we would have seen that as, certainly in the case of UniCampus, as just a part of the job' (AA, p. A-7). He emphasises that 'there are no additional hours carried out, or subject to some charge' (AA, p. A-16) and that 'my point is we don't raise additional invoices for additional requirements' (AA, p. A-19). He has arranged that his staff teach the UniCampus staff certain cleaning methods, saying 'how to do the job on the floor with the new pads that we have done in UniCampus using diamond pads that restore floors, stone floors... when they in turn demonstrate it to UniCampus representatives, they in turn roll it out to their own direct employees on the campus' (AA, p. A-20). The principal is appreciative of this, saying 'where in fact they've actually shown us some initiatives that we have been able to use inside, and actually trained our supervisors in a thing called bonnet mopping for carpets' (PA, p. A-24). The agent explains the limitations on this additional unpaid work saying that 'the manager has a certain number of hours per week, per building ... we have to try and do that within those hours' (AA, p. A-19). Therefore, while the agent performs additional unpaid work to fulfil his perceived obligations under the psychological contract, there is a natural limit to his resources set by the available contract budget.

In Case B, the agent says that 'because we have this on-going relationship we are willing, well I like to think we are quite helpful to them in making some small changes here and there that we don't charge for' (AB, p. B-18). He notes that 'only recently we were recommending someone for them to use in an accounting role that would have familiarity with our software' (AB, p. B-11). The principal recognises these additional services saying 'anytime he is in ... he would go out of his way, from time to time, to help an individual with problems with our system' (PB, p. B-10). Therefore, while he performs additional unpaid services to fulfil his perceived obligations, this is subject to the natural limitation of his availability during his visit to the contract location. The principal has also made other requests for additional work or support without charge. She gives examples where 'they might just sponsor continuing education events, and they have been generally very happy to do so' (PB, p. B-19), 'the service provider to be invited to come in and talk to the students, and they are happy to do so' (PB, p. B-21), and 'there might be an opportunity in continuing education where the software provider could be asked to contribute' (PB, p. B-22).

In summary, both cases support the view that the agent performs additional unpaid work to fulfil his perceived obligations under the psychological contract subject to a natural limit of resources within the available contract budget. Therefore the unpaid additional works performed by the agents not only add service quality to the *ex post* contract, but serve to maximise the efficiency allocation of the agent's responses. The agent's responses are enabled by the principal's resources comprising incentives and information systems. Therefore the use of signals by the principal to influence the agent's perceived obligations may be viewed as optimising the efficiency of the agent's responses. This may explain why the principals in Case A and Case B, rather than designing more complete contracts, rely on the contract relationship to secure responses from the agent.

5.3.4 Summary of the *ex post* Contract Management Mechanisms

The above findings show that during the *ex post* contract, written and psychological contract mechanisms are used by the principal to induce responses from the agent. These are summarised in Table 5.4. The written contract provides incentives and information systems to ensure the agent delivers a specialised service in return for the contract resources provided by the principal. The contract is necessarily, and sometimes intentionally incomplete and

insufficient to address all contingencies. This incompleteness necessitates a principal agent relationship comprising a psychological contract to provide solutions to unforeseen issues and ensure optimum allocation of the principal's resources and efficient responses from the agent within the natural limitations of his resources.

Having set out the findings which identify the *ex post* management mechanisms of the written and psychological contract, it is now possible to review the Initial Study propositions in the light of these findings.

 Table 5.4 - Contract - ex post Management Mechanisms

Written Contract Mechanisms - Agency Theory		Unwritten Contract Mechanisms – Psychological Contract						
riginey incory			Principal's Signals	Agent's Obligations				
Incentives	Information Systems	Performance Communication	Message Reinforcement	Authority	Individual Dispositions	Behaviour Judgements		
Regular payments to agent [Case A, Case B] Contract acts a reference for agent to seek other clients [Case A, Case B] Opportunity to share information [Case B] Potential termination and retender of contract	Contract Review Meetings [Case A, Case B] Audit or review system [Case A, Case B]	Meetings on additional requirements [Case A, Case B] Written communications to record problems [Case A] References to written contract [Case A, Case B]	Principal's control of the contract budget [Case A, Case B] Principal's responses to audit or review [Case A]	Principal makes or extends contract.[Case A] Principal has support of her organisation [Case B] Principal only deals with Agent [Case A, Case B]	Agent maintains professional standards [Case A, Case B] Agent seeks public contracts [Case A] Agent's poor performance loses a contract [Case A, Case B] Agent's good performance improves prospects [Case A, Case B]	Agent performs additional unpaid work subject to the availability of contract resources [Case A, Case B] Agent wants to keep Principal happy [Case A, Case B] Agent shares knowledge with the principal's staff [Case A, Case B]		

5.4 REVIEW OF THE INITIAL STUDY PROPOSITIONS

The Initial Study developed eight propositions (see Table 4.13) in relation to *ex post* contract management mechanisms viewed from the economics perspective only. These included the written contract mechanisms of incentives, information systems, and the unwritten contract mechanisms of signals. The Main Study investigated the *ex post* contract management mechanisms from the perspectives of both the economics written contract and the psychological contract. Both approaches support the use of incentives, information systems, and signals. However the psychological contract view of signals has some differences to that of the economics view. Therefore the Main Study provides useful findings with which to examine the Initial Study propositions.

In the Initial Study the first proposition states:

Proposition P0: A principal uses the written contract incentive as an opportunity to promote a response from the agent.

In both Case A and Case B the written contract ex post mechanisms are the incentive of fixed payments and an information system consisting of regular audits or reviews supported by electronic records, and scheduled meetings between the principal and agent. In Case A the agent notes that 'the work that we have ... €140,000' (AA, p. A-4). Similarly in Case B, the agent is conscious of the annual payments saying 'it was €56,000 ... annual support ... about €12,000 to €14,000' (AB, p. B-2). There is an additional incentive to the agent by having a contract with an established organisation, which may in turn enhance his future prospects with other clients. In Case A the agent confirms that 'the other benefit ... is the actual reference' (AA, p. A-11) while in Case B the agent also notes 'UniVet college is ... a flagship site for our business' (AB, p. B-4). While these are not strictly written contract incentives, they are direct consequences of the written contract and may be considered as such. In contrast, the written contract penalty of terminating and re-tendering the contract is not mentioned by either principal. Indeed both emphasise the benefits of the good and continuing nature of the relationship. In Case A, the principal observes that the agent having 'the UniCampus brand on their portfolio is a selling point' (PA, p. A-11). In Case B the principal notes that 'they have relied on that ... they are associated with UniVet' (PB, p. B-8). Both principals are aware that these incentives are significant for the agents. The Case A principal observes that 'when they are seeking future business ... it proves that they have

been there for a period of time (PA, p. A-11). Similarly, the Case B principal notes that 'a very significant incentive ... is being associated with UniVet Veterinary Hospital, a major institution, a big third level institution' (PB, p. B-8). , Since the agents want to preserve the relationship with their principals, and the principals are aware of this, the written contract incentive offers opportunity to the principals to promote responses from the agents. Therefore, the Main Study supports this proposition.

The nest Initial Study proposition states:

Proposition P1: A principal relies on the written contract information system to promote a response from the agent.

In contrast, the information systems may be studied in more detail and discussed at greater length with the agent by the principal in response to performance issues. For example in Case A the principal notes that 'the information provides a history of how the contract is performing over a period of years. And then, if there is a problem, you can genuinely view if it's an isolated incident rather that a continual problem' (PA, p A-9). He pays close attention to the client meetings saying 'I would find them very useful because, at the end of the day, if the client is there wanting something else, and we can't discuss it or aren't willing to discuss it ... then the client isn't going to be too happy' (AB, p. B-15).

Therefore the Main Study findings support the proposition P1 statement that a principal relies on the use of the written information system to promote a response from the agent.

The following proposition of the Initial Study is:

Proposition P2: A principal uses the incompleteness of the written contract as an opportunity to promote a response from the agent.

The findings support this proposition. In Case A the principal observes 'a too detailed document can become a bit of a weapon between the parties' (PA, p. A-8) and 'if you are solely relying on what's printed, the one thing you miss will be the one thing you need' (PA, p. A-7). Using this incompleteness she has added additional obligations such as new performance measurements saying 'we're actually working on devising a whole measurement of KPI's' (PA, p. A-30). The agent accepts such additional obligations within the agreed contracted cleaning hours saying 'if there is an additional requirement for anything extra, we have to try and do that' (AA, p. A-19). In Case B the principal has also added additional

obligations saying 'a lot of issues only arose subsequent to the contract being issued...because of things we hadn't thought of in the original contract' (PB, p. B-6). The agent accepts these obligations of an incomplete contract saying 'we are all interested in progressing the system's ability and to meet as many people's requirements...and that would be normal' (AB, p. B-6).

Therefore the written contract incompleteness is used by a principal as an opportunity to promote a response from the agent, and the Main Study findings support the proposition P2.

The next proposition is

Proposition P3: A principal uses visible non-functional expenditures of time as a signal to promote a response from the agent.

The findings show that in both cases the principal spends time in behaviours that are not functionally required by the written contract, but communicate requirements to the agent who then performs actions towards meeting these requirements. For example, in Case A while there is a site supervisor who manages the contract, the principal still spends personal time as a means to highlight the importance of certain matters to the agent. She gives examples saying 'the set-up of the contract is normally done by myself' (PA, p. A-2) and 'I would believe in bringing them in for a formal meeting ... on our territory rather than meeting in the building ... and sitting down formally across the desk with the documents in front of me and deal with it in that manner' (PA, p. A-23). Although she is not essential to setting up the contract which could be done by her supervisor, she chooses to do so herself. Similarly, having the meeting in her office, across a Table, with documents takes more time than meeting in the building under the contract. As this personal time is not strictly functional, it sends a signal. The agent responds to these signals promptly saying 'If something is highlighted it's addressed there and then, and it will be finished before the next meeting.' (AA, p. A-7).

The principal in Case B spends time in additional personal communication saying 'if you lose that personal contact, that closeness, the relationship, then I think things just get put up with and we don't communicate our needs' (PB, B-13) and 'I think a balance between the very friendly and the more formal written communication is an influence' (PB, B-18). In these examples the principal devotes personal time that goes beyond that which is strictly

functionally required in maintaining closeness and in written communication. The agent responds positively to these signals saying 'I think that if there was something going wrong it would just be said. I don't think the tone would be necessary' (AB, p. B-18), 'I would like to think we have moved beyond the contract' (AB, B-6), and 'we are quite helpful to them in making some small changes here and there that we don't charge for' (AB, B-18).

Therefore, the Main Study findings generally support the proposition P3 that a principal uses visible non-functional expenditures of time as a signal to promote a response from the agent.

The following proposition from the Initial Study sates:

Proposition P4: A principal uses his resources such as budgets, expertise, or negotiation skills as a signal to promote a response from by the agent.

The findings show that the principal's contract resources comprise the budget, the information systems, their contract management expertise, and their social skills of developing and maintaining an appropriate contract relationship. The principal's access to these resources is a signal influencing the agent to improve the contract outcomes.

In case A the principal has access to these contract resources. For example, the principal demonstrates her control of the budget and her management expertise in revising the information system in line with her responsibility for the contract. She says 'we're auditing the whole operation and the value of the contract ... no invoices will be paid until the product is correct' (AA, p. A-30). She maintains her expertise is not related to the purely technical aspects of the contract saying 'you could go in and not know what we are talking about ... some things are better left sorted out at a supervisory level' (AA, p. A-20). However, this demonstrates that she is clear about where her management expertise lies. She says 'you just really need to indicate that there are issues that have to be sorted out, how to do them, and what's going to happen' (AA, p. A-15). She says the required social skills are a balance between fault finding and being over-friendly. She says 'only picking out faults ... I don't think that serves to build any relationship and you won't build for good service ... if you are too social ... then you won't be able to deal with things when they become difficult' (AA, p. A-21). The agent views the principal as responsible for all the contract resources demonstrated by extending the contract and approving payments. He says 'that if and when there was a new building coming on or there was a new area that might require cleaning, the

head of the housekeeping in UniCampus, P, would contact myself directly and I would go in and see P' (AA, p. A-12). He adds 'the invoice goes to the Housekeeping; I presume P may sign it off' (AA, p. A-19). His views the principal's resources as signals and these influence his behaviour as he says 'if she has an issue she'll tell you ... and you'd already have to have it addressed (AA, p. A-23).

Similarly in Case B, the principal sees her access to contract resources as an important influence. She says 'I think our ability to issue the tender and get that contract passed, where there had been no investment in this region, where the service provider had been told there was no money for upgrades for the last ten years, was seen as very influential and a demonstration by the university to the service provider' (PB, p. B-17). She sees a significant contract resource in the annual budget saying 'money in ensuring that our contract was such that we would be able to upgrade every year' (PB, p. B-16). She says the required expertise is less about the technical aspects. She says 'we have a lot better level of service now than when we did have someone who was knowledgeable about technical things' (PB, p. B-16). Rather she says it is more important that 'things that we know what we want and that we are going to be quite active in ensuring that we get it' (PB, p. B-16). Also she says that while social skills 'are important in maintaining that relationship' (PB, p. B-17), there has to be 'a balance between the very friendly and the more formal written communication' (PB, p.B-18) and that this balance 'is an influence' (PB, p. B-18) on the agent. The agent is conscious of the principal's access to contract resources saying 'I would go so far as to say that the person we are dealing with and others I suppose, has enough of, I hate using the word power, but power and respect within the organisation that they can get things done' (PB, B-10). He acknowledges that the principal's 'other general expertise is extremely good ... somebody with good management expertise is important because it means it's likely that things get done' (PB, p. B-16). These signals influence his behaviour, as he says 'obviously you would want to keep someone happy if you know that they might influence a future contract' (PB, B-16).

Therefore, the Main Study findings generally support the proposition P4 that a principal uses his resources such as budgets, expertise, or negotiation skills as a signal to promote a response from by the agent.

The next proposition from the Initial Study is:

Proposition P5: A principal uses his relationship with positions of organizational leadership as a signal to promote a response from the agent.

The findings only partly support proposition P5 as stated above. For example, in Case A the principal does not refer to her access to more senior figures in her organisation. She is clear that she is the organisational leadership figure saying 'from the service provider's point of view, in this case I think they would know that the supervisor would be reporting back to me on a regular basis' (PA, p. A-22). Similarly in Case B the principal says 'certainly I do have access to the Bursar, the President and the Registrar ... I think the knowledge that that influence and access is present certainly has been an influence' (PB, p. B-17). However she does not involve them in contract meetings saying 'I think it would have to be serious for that level of discussion to occur' (PB, p. B-17). The agent understands the authority of the principal saying 'it would be essential in a contract this size, that it would have a point of contact that would be at a senior level' (AB, p. B-10), and 'the person we are dealing with ... has enough ... power and respect within the organisation that they can get things done' (AB, p. B-10). Therefore the organisational leadership figure in relation to the contract from the agent's perspective is the principal herself. The study finds that the only organisational leadership figure influencing the agent is the principal. While the Main Study's findings do not directly support this proposition as it is stated, it does highlight that the authority of the principal as contract maker is a signal influencing the agent's psychological contract. This is discussed further in the next chapter.

The following proposition of the Initial Study states:

Proposition P6: An agent views a change to formal communication as an information signal requiring a response.

In Case A the principal says 'if it's a small issue, it might be dealt with a phone call' (PA, p. A-13), but 'we try to deal with any actual complaint or anything that we think may be a problem via email at least so that there is some record' (PA, p. A-13). Therefore the principal changes from verbal to written communication to signal that there is an issue requiring a response. In Case B the principal generally uses informal communication saying 'To be honest it happens much more informally now where somebody will email or ring up' (PB, p. B-8). However, during a critical period of concern for performance written communication was used. She says 'I know that we did have some formal written communication around the

time of the deadline for going live on the system ... and we were worried about some levels of progress' (PA, p. B-18). The agents in both Case A and B associate any increased formality in communications from the principal as a signal of poor performance. In Case A the agent notes that 'saying where there might be a fall-off in the level of service ... they might send an electronic email' (AA, p. A-16). In Case B, the agent states concern for any reference to written statements saying that that 'I would feel very worried if anyone started quoting the contract' (AB, p. B-8).

Therefore the Main Study findings support the Proposition P6 which states that an agent views a change to formal communication as an information signal requiring a response.

The next proposition is:

Proposition P7: An agent views an additional meeting as an incentive signal requiring a response.

The Main Study findings only partly support the proposition that additional meetings are used by the principal to influence the agent towards improved contract outcomes. For example, in Case A the principal indicates that when a problem has not been resolved by the contract supervisors, she would call an additional meeting saying 'I would believe in bringing them in for a formal meeting' (PA, p. A-23). However, the agent reports that 'something needing additional attention is brought up at the regular meetings' (AA, p.A-7). In Case B the agent observes that the only meetings are about 'progressing the system's ability and to meet as many people's requirements' (AB, p. B-6). Therefore, while additional meetings may be called by principals, other signal mechanisms are more frequently used. While the findings partly support this proposition, re-stating it in terms the psychological contract is more useful and this is explored in the next chapter.

The last proposition from the Initial Study is:

Proposition P8: An agent views a demonstration of willingness as a mutual interest signal requiring a response.

The findings from the Main Study only partly support this proposition. In Case A the principal gives an example of resolving a difficulty where the agent's team had activated the fire alarm saying 'it was ... quite informal ... I said "look, I'm not here to beat anyone up, but I just want to know where did this happen, what did you do then" ... because I realised

we hadn't given the girl enough information' (PA, p. A-28). She also notes that 'if you are too business-orientated ... you don't build any relationship' (PA, p. A-21). She concludes that there is mutual interest in the development of skills saying the agent's staff has 'actually trained our supervisors in a thing called bonnet mopping for carpets' (PA, p. A-24). The agent agrees saying 'we would do extra things ... but it's that extra bit and the bit that gets noticed ... we've probably shown MP a few ways of cleaning carpets and using different pads.' (AA, p. A-6). While the principal is demonstrating a willingness to solve a problem, it appears to be more of a demonstration of her authority within the contract than of mutual interest.

Similarly in Case B the principal notes 'to be honest it happens much more informally now' (PB, p. B-8). She also notes that 'and it seems to work that way' (PB, p. B-8) and 'we do enjoy a very good cordial relationship' (PB, p. B-11) which allows her team to 'communicate our needs clearly to VetServ' (PB, p. B-13). The agent notes the social and informal aspect of the contract relationship saying 'we would ... have social conversation ... we find that there are other things outside of the relationship to do with the contract that are useful or beneficial to both parties' (PB, p. B-10). Because of this relationship the agent responds positively says 'we have this on-going relationship we are willing, well I like to think we are quite helpful to them' (AB, p. B-18). Again, this willingness to be helpful to the principal appears to acknowledge her position of authority within the contract relationship which allows her to conduct business in an informal manner.

Therefore the Main Study findings partly support the proposition P8 which states that an agent views a demonstration of willingness as a mutual interest signal requiring a response. It may be that the principal's demonstration of willingness is more about the authority to define the required goals of the contract than mutual interest.

In summary, this chapter has analysed the data to find the *ex post* contract management mechanisms. These comprise the incentives and information systems of the written contract, as well as principal's signals of performance communication, message reinforcement, and authority which contribute to forming the agent's psychological contract. The psychological contract perspective also adds the importance of the individual dispositions of the agent such as his motivations towards extending the contract and potentially influencing the next tender outcome, and his awareness of his human and contract resources. Based on the principal's

signals and his individual dispositions, the agent decides to perform works to satisfy his perceived obligations under his psychological contract, including additional unpaid works to satisfy the principal. The agent's work under the terms of the written contract and his psychological contract is performed within the limitations of the available contract resources. By adopting both agency theory and the psychological contract as lenses with which to view the *ex post* contract management mechanisms, a fuller explanation of how and why managers deal with contracts is achieved. The next chapter discusses the wider applications and relevance of these findings.

CHAPTER 6 - DISCUSSION

The three research problems and the arising two research questions are shown in Tables 1.1 and 1.2 respectively. These concern issues with public contracts that arise *ex post*, how and why managers manage such contracts, and lead to a research objective of whether an appropriate conceptual model can be developed. This chapter first discusses the research problems, questions, and the research objective in the light of the Main Study findings. From these findings revised propositions are developed, and an improved conceptual model based on an economic written contract and the psychological contract perspectives is proposed. It then examines the validity, the limitations, and the contributions and suggests opportunities for future research.

6.1 REVIEW OF THE RESEARCH PROBLEMS

Three research problems are set out in Table 1.1 and these are now discussed in relation to the findings.

The first problem is that public contracts do not sufficiently address ex post contingencies. The context set out in the literature is that public contracts lack flexible incentives and not address all contingencies (Walls, 2005, pp. 217 - 218). Despite the formal ex-ante public procurement process, poor contract design may result from extending existing contracts into longer arrangements (Kim and Brown, 2012, p. 688), and principals frequently rely on building trust with agents to overcome contract incompleteness (Merkert and O' Fee, 2013, p. 125). Examples of such behaviours are evident. The Case A contract has been extended using informal arrangements noted by the principal saying 'the contract has grown' (PA, A-4). Also, in Case A the principal avoids drafting a complete contract, preferring to rely on building trust with the agent. She notes 'you build the relationship, because if you are solely relying on what's printed ... the one thing you need ... it won't be written down' (PA, p. A-7). Similarly in Case B there is an incomplete contract, extended informally, and relying on the relationship for performance. In Case B the principal highlights the difficulty in forecasting eventualities in the contract saying 'it wasn't because of lack of completeness; it was only because of things we hadn't thought of in the original contract ... our lab services had since expanded and so had to think anew' (PB, p. B-6). She adds 'people don't really

look back at the contract ... it happens much more informally ... and it seems to work' (PB, p. B-8). Therefore the findings support the statement of the first research problem. However, the data of this study suggests that principals of public contracts are less concerned about designing complete contracts, and more about achieving service performance outcomes that are useful for their organisations. For example in Case A the principal states that 'a good contract service is vitally important' (PA, p. A-4), while in Case B the principal says 'it's very, very important ... we can't operate our hospital efficiently without it' (PB, p. B-4).

In summary, the evidence suggests that public contracts do not sufficiently address *ex post* contingencies for two reasons. First, as stated in the literature, because complete contracts are difficult to design. Second, from the findings, because principals are more concerned about providing service outcomes that are useful to their organisations, rather than having complete contracts.

The second research problem states that public contract ex post outcomes differ from those specified ex-ante. The reasons mentioned in the literature for this is because principals do not secure the required performance from agents (Kakabadse and Kakabadse, 2001, pp. 401 – 41) due to the unwillingness or inability to enforce the contract terms (Domberger and Jensen, 1997, p. 71). From the findings discussed earlier, the original written contracts are extended to produce new outcomes. For example, the principal in Case A notes the service includes 'a new building that came on stream last year' (PA, p. A-2) and a new audit process 'so that we're auditing the whole operation' (AA, p. A-30). Similarly, in Case B the principal says she intends to add a new 'link between the lab system and the VetServ' (PB, B-13). Therefore the evidence support the research problem statement that public contract ex post outcomes differ from those specified ex-ante. While the literature states that these different outcomes are due to lack of ability or willingness to secure performance from the agent, the findings show that principals appear competent in doing so. For example, in Case A the principal affirms that 'you just really need to indicate that there are issues that have to be sorted out, how to do them, and what's going to happen' (PA, p. A-15). Also in Case B the principal says 'we know what we want and that we are going to be quite active in ensuring that we get it' (PB, p. B-16). These approaches by the principal appear effective in securing performance from the agent. For example, in Case A the agent notes of the principal that 'if she has an issue she'll tell you and you'd already have to have it addressed' (AA, p. A-23). In Case B

the agent observes 'if there was something going wrong it would just be said ... because we have this on-going relationship we are willing' (AB, p. B-18).

To summarise, the evidence supports the second research problem statement that public contract outcomes may differ that those specified *ex-ante*. The results imply that these different outcomes are due to extensions and changes in the service agreed by the principal with agent. Finally, the evidence supports that, in contrast to the literature, principals have the ability and the willingness to secure *ex post* contract performance from agents.

The third research problem states that public contract relationships do not sufficiently foster ex post collaborative solutions. The literature indicates that once the public contract is awarded, close co-operative working relationships, while optimal for outcomes, do not result (Loader, 2010, p. 42). Indeed, a formal adversarial contract relationship may be maintained to demonstrate transparency (Darwin, Duberley and Johnson, 2000, p. 53), with the relationship viewed as the monitoring and review of the contract (Murray, 2009, p. 200). The data indicate some tensions in the relationship. In Case A, the agent is aware that he is always in competition with other potential suppliers saying 'if any customer ever needs me ... I am available at any time ... but I am sure it's the same in other organisations as well' (AA, p. A-22). In Case B the agent similarly notes that 'obviously we were in competition with other providers ... seeing whether they were going to make a radical change here, or should they stick with VetServ' (AB, p. B-4). However, both agents declare that there is a positive working relationship with their principal. In Case A the agent says that 'we have a very good working relationship' (AA, p. A-3), while in Case B the agent notes 'we have moved beyond the contract ... we have a very, very good working relationship' (AB, p. B-6). The principals view the positive contract relationship as providing collaborative solutions. In Case A the principal notes that 'the relationship ... has been very good ... they've actually shown us some initiatives' (PA, A-24), and 'in this relationship ... we can learn from each other' (PA, p. A-25). Also, in Case B the principal confirms that 'a very good cordial relationship ... has been really instrumental in ensuring the success of the contract' (PB, p. B-11). Interestingly she adds that 'relationship ... was one of the factors in the awarding of the contract to this particular service provider' (PB, p. B-11). This suggests that a positive working relationship not only provides an exchange of knowledge towards collaborative solutions, but also supports the agent's prospects for a future tender.

Therefore, the evidence does not support the third problem statement that public contract relationships do not sufficiently foster *ex post* collaborative solutions. The evidence supports that despite the tensions of performance monitoring and the prospect of re-tendering, the *ex post* contract relationship can result in collaborative solutions. This result does not contradict the literature. Indeed, the principal in Case A notes that *ex post* relationships may lack collaboration saying that 'in one of our other contracts which would be a very big organisation, you don't get as good service because they don't really value the contract' (PA, P. A-22). The data suggests that lack of collaboration may stem from a lack of regard for the benefits offered by the contract to the organisation. It is worth noting that in Cases A and B all the parties regard their contract as important to their organisation. The evidence may suggest that a lack of collaborative solutions stems from lower than expected benefits to the parties from the contract. This suggests that great management attention to the *ex-ante* tender process and the contract design would provide more clarity on the expected contract benefits, and support collaborative solutions in public contracts.

Having reviewed the research problems, the research questions are now discussed.

6.2 REVIEW OF THE RESEARCH QUESTIONS

Two research questions are set out in Table 1.2 and these are now discussed in relation to the findings. The research questions asks how and why are *ex post* management mechanisms used by managers to secure optimum contract outcomes? These were posed at the outset based on the understanding of the *ex post* management challenges noted in the literature and the research problems identified from these. In this section, the question of 'how' is discussed first followed by the question of 'why'.

6.2.1 How are *ex post* Mechanisms used by Managers

The evidence suggests show that how *ex post* mechanisms are used by managers is by jointly using the economic written contract mechanisms of agency theory and psychological contract mechanisms of signals. These are discussed in turn.

6.2.1.1 Incentives

The *ex post* mechanisms of the written contract comprise the principal's incentives and performance information systems (Eisenhardt, 1989, p. 58). In both cases, the incentives provided by the principals comprise the contract payments and the reputational benefit to the agents. In Case A the agent gives the annual value of '€140,000' (AA, p. A-4). He says 'it's nice to know...you are going to get paid at the end of every month' (AA, p. A-10) and 'it's great to have government work and you can use some contracts as a reference, whether it be for an educational institution, or the public authorities' (AA, p. A-11). Similarly in Case B, the agent notes the contract payments as '€56,000 ... and the annual support cost, I think it is about €12,000 to €14,000' (AB, p. B-2). He adds that 'UniVet College is the qualifying college for all veterinary surgeons throughout Ireland and most of our customers have gone through there, and it is a flagship site for our business' (AB, p. B-4).

Therefore the evidence suggests that the written contract incentives comprise the contract payments and the reputation enhancement to the agent. From the principal's perspective in Case A and Case B, the *ex post* management mechanism does not entail changing the incentives in relation to the agent's performance, and incentives are an *ex-ante* mechanism. However, the evidence also suggests that the contract incentives are in the agent's attention in both these cases. This implies that while a principal's *ex post* management primarily relies on the information system, careful *ex-ante* design of the contract incentives would support *ex post* management. Both Cases A and B support the use of contract incentives as a mechanism that is used to induce an *ex post* response from the agent.

6.2.1.2 Information Systems

Information systems in both cases rely primarily on meetings arranged by the principals. In Case A the agent indicates that 'The monthly information meeting between the managers is the information system' (AA, p. A-9) as well as 'our fortnightly walk arounds on our audits' (p. A-26). In Case B, the principal highlights that the contract information system is an annual review meeting saying 'once a year we would review it' (PB, p. B-12).

As discussed, the information system is the *ex post* mechanism that is primarily relied on by the principals in these cases. It is interesting to note that these are relatively informal and

qualitative mechanisms. While both Case A and Case B contracts appear to be successful with positive working relationships, it may be that some quantitative measurements would strengthen this *ex post* management mechanism, particularly in the event of a dispute or difficulty in the contract relationship. Indeed, in Case A it appears that the principal has identified this area for improvement saying she will be 'auditing the whole operation' (PA, p. A-30). It may be that some form of numerical performance measurements are intended here. However, the evidence from both Cases A and B suggest that the information system is an *ex post* contract management mechanism used by managers.

6.2.1.3 Psychological Contract Signals

Psychological contract signals are interpreted as credible promises if the contract maker is (i) operating in a context appropriate to promise making such as communicating required performance standards, (ii) behaving in ways consistent with the commitment made, such as reinforcing the message through the compensation system, and (iii) having power, authority, or capacity to make the commitment (Rousseau, 1995, pp. 40 - 43). These may be termed performance communication, message reinforcement, and authority signals respectively. Examples of these signals by the principal to the agent are found in Case A and Case B.

Performance communication signals include changes from informal to formal or verbal to written communication (Nikander and Eloranta, 2001, pp. 387 - 388) by the principal. In Case A the principal notes that 'if there is a problem that can't be dealt with at a supervisory level, then we would set up a formal meeting' (PA, p. A-27), and 'if it's a small issue, it might be dealt with a phone call ... any actual complaint or anything that we think may be a problem via email at least so that there is some record.... a formal record of it....' (PA, p. A-13). Similarly in Case B the principal states 'we did have some formal written communication around the time of the deadline for going live on the system ... I think a balance between the very friendly and the more formal written communication' (PB, p. B-18). Therefore the evidence from both Case A and Case B support the use of performance communication signals as an *ex post* management mechanism.

Message reinforcement signals are links by the principal established between the contract message and the payments (Rousseau, 1995, pp. 41) such as payments being made on

satisfactory performance. For example in Case A the principal says 'we're auditing the whole operation and the value of the contract....so that no invoices will be paid until the product is correct' (PA, p. A-30). In Case B the principal notes that 'the fact they know the budget is under the control of the Vet School rather than a contracts manager from some other part of the university means that they know and we know that we are looking at their service, I think, calibrates their service' (PB, p. B-15). Interestingly, and perhaps due to the linkage between performance and payments, the agents in both cases reciprocate by adding to their own review systems. In Case A the agent says 'we would do our own reports that are electronic audits that we would do, setting the sort of standard that we do for all buildings ... which is signed by the customer, or the customer's representative, and is emailed to the customer and to our own office here' (AA, p. A-8). In Case B, the agent explains 'we have implemented an IT system for tracking technical issues ... a little information system of its own that's separate from the system and which is available to them ... we can jointly review it' (AB, p. B-21). Therefore, both Cases A and B support that message reinforcement signals are used.

Authority signals are demonstrations of the principal's authority as the contract maker (Rousseau, 1995, pp. 42) such as setting up the contact and maintain formal social relationships with the agent. In Case A the principal says 'the set-up of the contract is normally done by myself and the owner of the company' (PA, p. A-2), and adds 'the only time I would meet the managing director of the business ... would be if I was asking him to quote for a new building that was coming on stream, or to tell them that we are going into the tender process' (PA, p. A-24). She is aware that her authority comes from her organisational position saying 'that's the hierarchy isn't it, that's where the power is' (PA, p. A-18). The agent is conscious of these authority signals and prefers to avoid matters being escalated to the principal's attention saying 'because there is no escalation to P. I think that's the most important thing' (AA, p. A-18). Similarly in Case B the principal is clear on her authority as contract maker saying 'we know what we want and that we are going to be quite active in ensuring that we get it' (AB, p. B-16). She is also aware that her position in her organisation and access to other senior figures is a signal to the agent saying 'the knowledge that that influence and access is present certainly has been an influence' (PB p. B-17). The agent is conscious of the principal's 'power and respect within the organisation' (AB, p. B-10) and that 'you would want to keep someone happy if you know that they might influence a future

contract' (AB, p. B-16). Therefore, the evidence from Case A and Case B support the use of authority signals an *ex post* management mechanisms

In summary, the evidence supports that how *ex post* mechanisms are used by managers is through recognising that contracts are incomplete, and by jointly using both the written contract and psychological contract mechanisms to induce a response to the contract requirements. These are the agency theory mechanisms of incentives and information systems, and the psychological contract signals of performance communication, message reinforcement, and authority. The reasons why this approach is used is now discussed.

6.2.2 Why are these *ex post* Mechanisms used by Managers?

The reason why managers use the *ex post* mechanisms available from both the written and psychological contracts is to overcome a number of management challenges. These are the difficulty of contract design and the problem of balancing cost and quality. These are discussed in turn.

6.2.2.1 Contract Design

Complex contracts are unavoidably incomplete (Williamson, 1999, p. 1089) and some unforeseen situations arise during the *ex post* implementation The evidence suggests that while the principals in Case A and Case B are recognised by the agents as being senior managers, both principals indicate that they are managing contracts which are incomplete. In Case A, the principal says that she prefers to have a minimal written contract and rely on the relationship. In Case B, the principal did not intend the contract to be incomplete, but certain requirements were initially forgotten and had to be remedied *ex post*. Therefore, despite the knowledge and experience of the managers, a complete contract design is very difficult to achieve. By using the signals mechanisms of the psychological contact, solutions may be found for the inescapable contingencies of incomplete contracts. This is one reason why managers use the *ex post* mechanisms available from both the written and psychological contracts.

6.2.2.2 Cost and Quality

The evidence supports the view that public tenders produce competitively-priced contracts resulting in tight contract budgets being provided by public organisations. As the contract budget is unlikely to be increased *ex post*, the only way to achieve quality is by the efficient allocation of the agent's knowledge and human resources. The written contract terms alone do not guarantee the efficient allocation of the agent's resources. While perfunctory performance to the letter of the contract is enforceable, consummate performance is not (Hart and Moore, 2008, p. 3). With the incompleteness, the relatively fixed incentives, and the simple information systems evident in the written contracts of Cases A and B, the written contract outcomes are unlikely to achieve such efficiency. By using the psychological contract signals to create obligations for the agent, the agent will most efficiently use his resources to remedy contingencies. This is why managers use the *ex post* mechanisms available from both the written and psychological contracts.

6.3 REVIEW OF THE RESEARCH OBJECTIVE

The Initial Study shows that further research is required to better understand how *ex post* collaborative solutions are reached, how parties are willing to perform to the spirit of the contract, and improve the conceptual model of what constitutes desirable performance using the perspective of the psychological contract in addition to that of the economics view. In particular, the second research objective asks can a conceptual model be developed that would better support understanding of *ex post* contract management? The Main Study has improved on the understanding of the *ex post* contract management mechanisms of the Initial Study by adding the theoretical lens of the psychological contract to the signals mechanisms of the unwritten contract, and by linking the written and psychological contracts through the influence of the contract resources. To answer this research objective it is necessary to draw on the evidence of the Main Study to restate the Initial Study Propositions, and using these, endeavour to develop an improved conceptual model. The next two subsections address these points in order.

6.4 RESTATEMENT OF THE INITIAL STUDY PROPOSITIONS

The Initial Study Propositions (see Table 4.13) were reviewed in the last chapter. While the propositions are largely supported, it was concluded the Main Study also offers additional insights to allow these propositions to be improved. Bowers's theory building research strategy for real world problems (Bowers, 1972, pp. 25 - 26) advises that from the empirical findings, more general propositions should be developed leading to an improved model of the process indicated. Therefore the Initial Study propositions are now reviewed in the light the evidence of the Main Study, and re-stated to develop an improved conceptual model.

The first proposition P0 stated that a principal uses the written contract incentive as an opportunity to promote a response from the agent. The next proposition P1 proposed that a principal relies on the written contract information system to promote a response from the agent. While the Main Study support these propositions, in both Cases A and B the data also identified the main elements of the contracts as the contract budget, the specialised knowledge of the agent in performing the contract tasks, and the agent's allocation of the contract budget to the required tasks. Therefore it is possible to usefully join P0 with P1 to propose:

Proposition A: A principal designs a written contract to create resources to exchange for agent's response.

The next proposition P2 proposed that a principal uses the incompleteness of the written contract as an opportunity to promote a response from the agent. From the Main Study it is possible to more fully articulate this in terms of the psychological contract obligations and the limitations of the available contract resources. In Case A and B, neither principal reports concerns regarding their incomplete written contracts. They report that they have gone beyond the contract. They say that a positive working relationship, not limited by the written contract, is the more important factor to facilitate communication of their requirements. The principals engaged in a variety of communications, formal and informal, to highlight their desired contract outcomes. The principals leave the agents to allocate contract resources to those tasks that will most benefit the contract outcomes highlighted by the principal. This results in a mutual psychological contract where the agent commits to additional work to the extent of his perceived obligations and the available contract resources. Because of the agent's specialised knowledge, the psychological contract has the effect of optimising the

allocation of contract resources. The proposition P1 may be re-stated to include these points as a new Proposition B:

Proposition B: A principal designs an incomplete written contract to create a psychological contract with the agent.

The following proposition P3 proposes that principals use visible, non-functional, and non-enjoyable expenditures of time as signals to promote a response by the agent. The Main Study supports this proposition and adds clarity to the signal activity. The evidence on the psychological contract mechanisms identify performance communication signals as time spent by the principal communicating performance in addition to the contract information systems and usually in a more formal manner. Therefore P3 may be usefully re-stated as:

Proposition C: A principal spends additional time in formal communication to send a performance communication signal to the agent.

The next proposition P4 states that principals use their access to contract resources such as budgets, expertise, or social skills as signals to promote behaviours by the agent towards the desired contract outcomes. The Main Study suggests that the psychological contract signal explaining the potential influence of this is the creation of a link between these principal's resources and the agent's performance. Making the identification of satisfactory performance a requirement for the receipt of the contract payment is a message reinforcement signal. Therefore, P4 may be re-stated as:

Proposition D: A principal creates links between the information system and the incentive to send a message reinforcement signal to the agent

The next Initial Study proposition P5 holds that a principal uses his relationship with positions of organizational leadership as a signal to promote a response from the agent. The Main Study suggests that the principals have the support of their organisations, and that they are the authority figure representing their organisation in relation to the contract. This authority is signalled by the principals in the Main Study by limiting their social interactions with the agent to occasions of concerning the contract. To more fully capture the *ex post* signal mechanism, P5 may be usefully re-stated as:

Proposition E: A principal regulates his social time to send a signal of authority to the agent.

The Initial Study propositions P6, P7, and P8 propose that the agent's interpretations of the principal's formal communication, additional meeting time, and demonstration of willingness are information, incentive, and mutual interest signals requiring a response. The Main Study supports the principal's time and formal communication as performance communication and message reinforcement signals respectively. The evidence supports demonstrations of willingness more as potential authority signals. These signals create perceived obligations under the agent's psychological contract. These perceived obligations direct the agent to respond to the principal's signals. Using the evidence of the Main Study, P6, P7, and P8 may be usefully re-stated as:

Proposition F: An agent observes a signal which creates an obligation requiring a response.

The Main Study findings allow an additional proposition to be made. The agent is conscious of the available contract resources from the principal's incentives and information systems. He also recognises the incompleteness of the written contract which needs a response to ensure the contract continues satisfactorily. Finally, he is aware of his perceived obligations under the psychological contract arising from the principal's signals which also require a response. In deciding his response, the agent takes into consideration the extent and limitations of the resources, and his perceived obligations from the principal's signals. This allows a final proposition to be made:

Proposition G: An agent considers the resources, the contract incompleteness, and his obligations in deciding a response.

Table 6.1 shows a summary of the Initial Study propositions together with their associated restated propositions based on the Main Study findings using the perspective of the psychological contract.

Using these propositions an improved conceptual model can now be formed.

Table 6.1 – Restatement of *ex post* **Management Mechanisms Propositions**

Initial Study Propositions		Main Study Restated Propositions		
PO	A principal uses the written contract incentive as an opportunity to promote a response from the agent.	PA	A principal designs a written contract to create resources to exchange for agent's response.	
P1	A principal relies on the written contract information system to promote a response from the agent.			
P2	A principal uses the incompleteness of the written contract as an opportunity to promote a response from the agent.	PB	A principal designs an incomplete written contract to create a psychological contract with the agent.	
Р3	A principal uses visible non- functional expenditures of time as a signal to promote a response from the agent.	PC	A principal spends additional time in formal communication to send a performance communication signal to the agent.	
P4	An agent views a formal communication as an information signal requiring a response.	PD	A principal creates links between the information system and the incentive to send a message reinforcement signal to the agent	
P5	A principal uses his relationship with positions of organizational leadership as a signal to promote a response from the agent.	PE	A principal regulates his social time to send a signal of authority to the agent.	
P6	An agent views a change to formal communication as an information signal requiring a response.	PF	An agent observes a signal which creates an obligation requiring a response.	
P7	An agent views an additional meeting as an incentive signal requiring a response.			

Table 6.1 (continued) – Restatement of ex post Management Mechanisms Propositions

Initial Study Propositions		Main Study Restated Propositions	
P8	An agent views a demonstration of willingness as a mutual interest signal requiring a response.		
		PG	An agent considers the resources, the contract incompleteness, and his obligations in deciding a response.

6.5 THIRD CONCEPTUAL MODEL

Bowers views a theory building research strategy for real world problems as describing the forces that affect the process, seeking patterns from the data and theory, to derive other findings and an improved model of the process (Bowers, 1972, pp. 25 - 26). The first conceptual model of ex post contract management (see Figure 2.4) was based on the literatures of the written and unwritten contracts and proposed that public contracts to private firms comprise two forms, the written contract and the unwritten or psychological contract, and both these forms are used to secure the contract outcomes. Based on five case studies, an improved second conceptual model was developed (see Figure 4.1) based on the use of signals in addition to the written contract means. The written contract mechanisms comprise incentives such as the payments and information systems, such as site meetings, to direct the agent towards the contract objectives. As the written contract is inevitably incomplete, the principal appeals to the agent using signals comprising expenditures of non-functional personal time to create obligations address problems and provide solutions. Given the limitations of the information economics definition of a signal, further theory is required to more fully understand the mechanisms of ex post contract management. Using the psychological contract in the above study, the evidence suggests an improved third conceptual model may be developed.

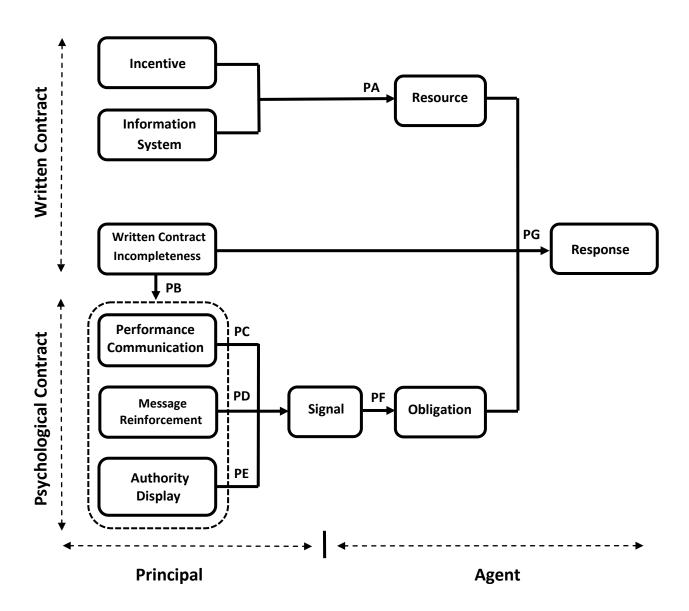
From the Main Study, during the post tender contract period, the principal and agent work towards achieving the contract outcomes following mechanisms of the written and

psychological contracts. The written contract systems are those information systems and incentives specified in the contract, typically the contract payments and joint audits of the service outcomes. The written contract specification, incentives, and information systems serve primarily to form the contract resource provided by the principal to enable the agent have the necessary payroll and focus of attention to use the payroll in an efficient way. However, the written contract is largely incomplete due to both the difficulty of designing a complete contract and the principal's preference for addressing issues through the unwritten or psychological contract. Managing through the psychological contract requires signalling by the principal and a positive agent's disposition towards opportunities to extend the contract, and potentially influence future decisions on tender awards. Performance requirements are signalled by the principal in order to change the agent's psychological contract, and induce decisions to implement preferred contract outcomes. The signals comprise actions by the principal such as changing to written communication, usually emails (performance communication), highlighting the link between payment and performance through the audits (message reinforcement), and displaying authority as the contract maker through setting up the contracts and maintaining a formal relationship with the agent and staff. The agent interprets these signals influenced by his dispositions towards extending the contract and potentially influencing the next tender outcome. Based on these he decides to perform works to satisfy his obligations to the psychological contract, for example to keep the principal happy, within the limitations of the available contract resources. In this way the cost quality conflict is optimised, enabling the highest performance within the limitations of the contract budget. This may explain why principals in public contracts are less inclined to withhold payments as a penalty under the written contract, and prefer to address performance by building the relationship with the agent. It also explains why public contract outcomes may differ from that of the original written contract. The conceptual model in fulfilment of the research objective is shown in Figure 6.1.

Returning to the earlier *ex post* contract management conceptual models, this third model holds the dual approach of the written and unwritten contracts in the first (Figure 2.4) and second (Figure 4.1) conceptual models. By comparison with the second model, the signals of time, resource, and position correspond with the third conceptual model's signals of performance communication, message reinforcement, and authority respectively. Similarly the second model's information, incentive, and mutual interest interpretations by the agent

are identified as the agent's obligations in the third model. However, it improves on the signals approach identified in the second conceptual model by more precisely separating sending of signals by the principal and the observation and decision making by the agent. It identifies the agent's consideration of the resources, incompleteness, and obligations as relevant influencing factors in the agent's decisions. Finally, it links the written contract and the psychological contract by identifying the written contract resources as the limitation on the scope of the agent's decisions under psychological contract. To complete the discussion, the implications for theory, management, and policy are now reviewed in the light of this improved conceptual model.

Figure 6.1 -Third Conceptual Model of ex post Public Contract Management



6.6 CONTRIBUTIONS AND IMPLICATIONS

The implications of the Main Study findings and the improved conceptual model are discussed in relation to the economic theory of the contract, agency theory, the psychological contract, signalling, management practice, and public procurement policy.

6.6.1 Validity and Limitations

Qualitative research with a truth-seeking purpose is concerned with extracting causality in the data by employing a conceptual-analytic framework that guides data collection and analysis, and is a progressive induction through which the data is collected, analysed, interpreted, and represented in a credible, corresponding account (Cho and Trent, 2006, p. 328). The Initial Study data collection and analysis is guided by the first conceptual model, highlighting agency theory and signal mechanisms, and the credibility of its account is supported by email correspondence and contract documentation. The Main Study further exposes the mechanisms of the written and unwritten contracts, and approaches signals through the psychological contract.

By selecting the Main Study cases on a theoretic sampling basis where it is hoped to find both maximum and minimum variance along the dimensions of the core model (Hamel, 1991, p. 85), validity is supported in the research. To further ensure validity, the responses by agent and principal in Case A and Case B were compared for consistency. To grasp the nature of the psychological contracts in place it is necessary to drill down into the beliefs held by the parties as well as the information sources they use to interpret the work environment (Rousseau, 2004, p. 123), and an emic approach in a study of a few persons is useful (Rousseau and Tijoriwala, 1998, p. 682). Therefore a "thick description" approach is used in the Main Study, explicating perspectives constructed by individuals who act in a context, with the emphasis on constructing texts with salient descriptions and interpreting locally constructed meanings from the emic worldview (Cho and Trent, 2006, p. 329). Charmaz (2004, p. 982) argues that people often cannot tell the researcher what most concerns them, and that the fundamental processes in the setting may be tacit. Therefore, participants were not offered the opportunity to review transcripts in order to avoid withdrawal of potentially context-rich statements by participants. In retrospect the researcher feels that this was an appropriate approach because useful data, which may have been withdrawn, were left for consideration. For example, the principal in Case A states 'it's the balance of power' (PA, p. A-18) when referring to her demonstration of authority in contract matters. Similarly, in Case B the principal does not readily admit to designing an incomplete contract saying 'it wasn't because of lack of completeness; it was only because of things we hadn't thought of in the original contract' (PB, p. B-6). While these statements do not portray the principals in in an entirely positive light, they offer insights to the power balance within the principal agent

relationship, and the difficulties in designing a complete contract. Finally, the narrative voice of the researcher is one of a facilities management practitioner with experience of managing contracts as a principal and agent in the public and private sectors. The narrative voice in this study is sympathetic to the purposeful social construction of the principal and agent as they explain their endeavours to address the management challenges during the *ex post* construction. Since the narrative voice assists explanatory constructs (Pentland, 1999, p. 715), this researcher's narrative voice is a further support to the validity of the research.

The limitations of the research are that it is a theory building study using a social constructionist approach to a total of seven individual cases concerning public contracts. In addition, the Main Study uses cases with fixed price contracts and not cost-plus. It is possible that cost-plus contracts may exhibit a stronger influence from the written contract incentives. Despite these limitations, the evidence and the conceptual models have relevance to principals and agents in *ex post* contract management in public contract settings. The contributions and implications are now discussed.

6.6.2 Contributions to Theory

Public procurement policy for public tenders and contracts are based on a classical transaction cost model of contract which presumes the availability of market remedies (Williamson, 1979, pp. 236 – 238). This transaction cost model brings two assumptions to the *ex post* stage of the contract. The first is that in the market there are potential agents available to offers solutions in exchange for payment by principals. Therefore in the event of poor performance by an agent a principal may choose to terminate a contract. The second is that since the market is competitive, agents will offer varying solutions in relation to cost and quality. In both Case A and Case B the evidence supports that the principals have worked to continue the relationship with the agents through a number of public tender processes. In Case A the principal notes that 'we have been dealing with this contractor for about seven or eight years, but the contract has grown over that period as buildings came on stream' (PA, p. A-4). In Case B the principal explains that the contract is 'about two years' (PB, p. B-3) but that 'the original software was supplied by the same company ... had been there for about ten years or so' (PB, p. B-3). Therefore, both principals did not choose to avail of market remedies for poor performance or seek more innovative solutions from other agents in the

market despite holding tender competitions. An additional perspective is required to explain this. Since all contracts are psychological (Rousseau, 1995, p. 6) this perspective is the psychological contract. The psychological contract it is defined as the beliefs based on promises expressed or implied regarding an exchange agreement which binds the parties to a course of action (Rousseau, 2001, p. 511). This is evident in Case B where the principal says 'when it went out to tender we had another very competitive quote ... I think what happened was that we were concerned about the level of support ... whether it's directly or indirectly, the fact that the personal relationship existed did influence the award of that contract' (PB, p. B11). While the evidence does not discount the transaction cost model of contract, it does support the proposal that the additional theoretical perspective of the psychological contract is required to explain the perspectives of managers towards contracts.

Agency theory recommends that the ex-ante contract design includes the management mechanisms of incentives and information systems to address risk and contingencies (Eisenhardt, 1988, p. 490). However the evidence suggests that the principal's incentives and information systems are necessary but insufficient mechanisms to address the ex post contract risks and contingencies. In Case A and B the principals are conscious of the incentives and information systems, but state that the relationship beyond the written contract is what addresses risks and contingencies. The principal in Case A notes that the payments are 'around €5,000 a month' (PA, p. A-4) and that 'our supervisor would conduct a joint audit on a monthly basis' (PA, p. A-8). She also adds that 'you build the relationship, because if you are solely relying on what's printed, the one thing you miss will be the one thing you need. And it won't be written down' (PA, p. A-7). Similarly in Case B the principal notes that the 'contract value was the first year €54,000 ... €19,300 annually' (PB, p. B-2) and 'I think we said that periodically once a year we would review it' (PB, p. B-22). She adds that 'to be honest, I think people don't really look back at the contract ... it happens much more informally now where somebody will email or ring up and say 'AB we have a problem and can you come and fix it?' And it seems to work that way' (PB, p. B-8). Therefore during the ex post contract, agency theory's incentives and information systems are necessary but insufficient mechanism to address risk and contingencies. Rather, these mechanisms are better identified by the findings as the principal's contract resources. Both the incentives and information systems provided by the principal resource the agent who uses these mechanisms to make available specialised knowledge and human resources to the contract. In Case A, the

agent notes that his contribution is 'that service, that knowledge, to do the job' (AA, p. A-20) and 'without that regular input from the Housekeeping Department in UniCampus, if it was run like some other government contracts that possibly should have the same flexibility in the manpower, it wouldn't happen' (AA, p. A-10). Also in Case B the agent says 'the contract was to provide a case management cum accounting system for the veterinary hospital, a practice management system for the veterinary hospital' (AB, p. B-3). He adds the client information is important saying that 'meetings are informal ... we are all interested in progressing the system's ability and to meet as many people's requirements' (AB, p. B-6). The theoretic implication of this is that the agency theory *ex post* mechanisms are less about addressing risk and contingencies and more a primary contract resource that drives the scale and scope of the contract outcomes.

The evidence also supports broadening the application of the psychological contract theory from the employment contract to inter-firm contracts between individual principals and agents acting on behalf of their organisations. While individuals have psychological contracts and organizations do not (Rousseau 1989, p. 126), the principal and agent are individuals with the authority to represent the interests of their organisations in the contract. As the agent in Case A notes about the principal that if 'client is getting a number of complaints and they're not being addressed ... the client would very soon say this is not working and you could lose the business' (AA, p. A-12). Also in Case B the agent similarly says that 'the person we are dealing with ... has enough of, I hate using the word power, but power and respect within the organisation that they can get things done' (AB, p. B-10). The evidence suggests links between the psychological contract and the agency theory mechanisms. As the agent decides and acts to fulfil his perceived obligations under the psychological contract, he allocates his knowledge and human resources to the priority requirements within the limits of the contract resources provided by the principal. That is he allocates work to the priorities identified by the principal's information and enabled by the principal's budget. Therefore the psychological contract obligations drive the efficiency of the allocation of the principal's contract resources to optimise outcomes.

Finally, the evidence supports extending signalling theory in two aspects. The first aspect is in relation to the understanding of signals used to convey information as part of the psychological contract of the principal agent relationship. Signalling theory is largely based on the information economics perspective which defines signals as non-functional time

expended in social and economic interaction to convey information (Spence, 1973, pp. 650 - 651). Using the lens of the psychological contract (Rousseau, 1995, pp. 36 – 44), the evidence supports categorising these signals into performance communication, message reinforcement, and authority display signals sent by the principal, and further highlight the importance of the agent's observation and consideration of these signals to form perceived obligations and responses under the psychological contract. The second aspect is in relation to methodology. By adopting a perspective of social constructionism it becomes possible to advance knowledge and practice in facilities management to provide real contribution to the core business of the organisation (Price, 2012b, pp. 90-91). This thesis uses the categories of signals as tools to explore and better understand the social constructions between the principal and the agent as they manage outcomes which provide outcomes for their organisations beyond the limitations of the written contract. The use of signals as a methodological tool facilitates enables this research.

6.6.3 Implications for Management Practice

The research problems summarised in Table 1.1 identified three research problems of which the first two have implications for management practice.

The first problem states that while public contracts are designed by experienced managers, they are inflexible and do sufficiently not address contingencies. The Main Study findings support this point. As the principals holds in Case A 'you build the relationship, because if you are solely relying on what's printed, the one thing you miss will be the one thing you need' (PA, p. A-7). Also in Case B the principal notes that 'I think a lot of issues only arose subsequent to the contract being issued' (PB, p. B-6) and 'we do enjoy a very good cordial relationship ... that has been really instrumental in ensuring the success of the contract' (PB, p. B-11). The evidence suggests that some experienced managers hold that it is impossible to rely on a contract being sufficiently complete to address all contingencies, and such contingencies are better addressed through developing a positive relationship. Indeed, while the contract is inflexible and incomplete, the positive relationship provides flexible solutions to contingencies.

The second research problem is that public sector principals are unable or unwilling to secure the contract terms from the agents. The Main Study evidence supports this to an extent. For example in Case A the principal explains that 'the contract has grown over that period as buildings came on stream' (PA, p. A-4). The agent adds 'if the builders were finished in a certain area, and we were to take over the next area or the next floor ... we'd have the weekly meetings and get then the instruction "from next week I want you to do this and to do that" (AA, p. A-16). Similarly in Case B the principal notes that 'to be honest, I think people don't really look back at the contract' (PB, p. B-8), and the agent concurs saying 'I would like to think we have moved beyond the contract' (AB, p. B-6) and 'I would speculate that they are thinking let's see what we can do to develop the system rather than the contract itself' (p. B-8). Therefore rather than securing the written contract terms, the principals work with agents to secure the broader unwritten contract outcomes in preference to the written contract ones.

While this ex post management approach by principals works well in a positive relationship, the reliance on the relationship can threaten the contract outcomes when parties disagree. For example in Case A the principal notes that 'in a previous and another relationship there have been times when lack of clarity caused a lot of problems' (PA, p. A-7) and 'I know in one of our other contracts which would be a very big organisation, you don't get as good service because they don't really value the contract' (PA, p. A-22). The implication for management from these findings is to improve ex ante the design of written contracts. This approach could include developing templates that address a wider range of contingencies, creating more flexible incentives, providing more easily implemented information systems, and identifying risks and remedies in relation to over-reliance on the psychological contract. After all, the efficiency of ex post renegotiation is influenced by the ex-ante contract that the parties sign (Bajari and Tadelis, 2001, p. 398). To an extent this is borne out by a comment from the principal in Case B who says that 'our ability to issue the tender and get that contract passed ... was seen as very influential and a demonstration by the university to the service provider' (PB, p. B-17). Therefore efforts to manage exante the tender and the written contract development influence the ex post relationship, as well as potentially providing more written contract solutions to a wider range of contingencies. The implication for managers is that exante effort in the design of contracts with more flexible incentives and information systems will support ex post management outcomes.

6.6.4 Implications for Policy

Of the research problems summarised in Table 1.1, the last two have implications for public procurement regulation policy. The second research problem states that the *ex post* contract outcomes frequently vary from those outcomes specified in the written contract.

Public procurement policies emphasise competitive tendering, clear written contracts, and fixed price contracts with defined outcomes. The evidence suggests that during the ex post stage managers of public contracts rely on the psychological contract between the principal and agent to achieve outcomes which are based on optimal resource allocation rather than defined outcomes. For example in Case A the principal maintains that 'a good contract service is vitally important' (PA, p. A-5). It appears that the contract outcome has been a success. As the principal says 'we have been dealing with this contractor for about seven or eight years, but the contract has grown over that period as buildings came on stream' (PA, p. A-4). The efficiencies arise from the agent's allocation decision within the contract budget, rather than from the defined contract outcomes. As the agent says, 'whether that be allocating some staff in to do an extra job, there is no additional resources, financial resources ... you just have to try and manage what we have' (AA, p. A-19). Also, in Case B the principal notes that 'it's very, very important ... we can't operate our hospital efficiently without it' (PB, p. B-4). She adds 'I think people don't really look back at the contract' (PB, p. B-8), and notes 'we do enjoy a very good cordial relationship ... that has been really instrumental in ensuring the success of the contract' (PB, p. B-11). Because of the psychological contract, the agent notes 'we have moved beyond the contract' (AB, p. B-6), and that 'let's see what we can do to develop the system rather than the contract itself' (AB, p. B-8). Finally he says 'we are quite helpful to them in making some small changes here and there that we don't charge for' (AB, p. B-18). In Case B, it is evident that rather than the public procurement objectives being the main influence, efficiencies appear due to the psychological contract between the principal and agent. In summary, the efficiencies stem from the agent's allocation decision, based on perceived obligations under the psychological contract, and within the contract budget. Contract outcomes are driven less by the written contract specification and more by the efficient allocation of the contract resources by means of the psychological contract between the principal and agent. A potential policy implication is the development of public manager competencies to design public contracts which provide clauses allowing for more flexible incentives and information systems to cope with unforeseen contingencies. In this

way, audited contract outcomes will report that contingencies were dealt with in accordance with the written contract specifications.

The third research problem arising from public procurement policy is that public contracts do not sufficiently encourage principal agent relationships which foster collaborative solutions. While recent policies encourage pre-tender consultation between buyer and sellers, in both Case A and B the findings indicate that the consultation and relationship between principal and agent develops as a result of a management decision rather than from the public tender process. For example in Case A the principal deliberately fosters a relationship with the agent saying 'I think the relationship is all-important as well as what's written down... you build the relationship, because if you are solely relying on what's printed, the one thing you miss will be the one thing you need.' (PA, p. A-7) and 'if you don't have that ... the service will fall down' (PA, p. A-12). In Case B the principal notes that 'we do enjoy a very good cordial relationship ... that has been really instrumental in ensuring the success of the contract' (PB, p. B-11) She adds that '. So it's only when we went and investigated and built up that relationship again, and spent a little bit of money in ensuring that our contract was such that we would be able to upgrade every year and would upgrade annually that that developed' (PB, p. B-14). The relationship develops with the contract. Or as Luo (2002, p. 903) puts it, the contractual arrangement serves as a framework within which cooperation proceeds. Therefore the evidence supports public procurement policies as a framework that supports the principal agent relationship rather than a means of directly fostering the relationship. While much public procurement literature exists on the regulatory requirements, more could usefully be done to develop management guidelines in relation to the ex post phase of the contract. Public procurement regulatory bodies could publish more detailed examples of how appropriate monitoring systems may be designed and implemented in public contracts. There are also opportunities for holding discussion between public and private sector management practitioners to highlight the regulatory, social, and market objectives of public procurement, address mutual solutions to tender criteria and written contract design, and encourage a partnership approach to the contract relationship.

Table 6.2 - Contributions of Thesis (Source: author, based on Farndale, 2004, p. 251)

	Extent of Contribution			
Domain	Supported	Developed	New	
Theory	Both transaction costs economics and the psychological contract theories are required to understand the perspectives of managers towards contracts.	Signals by the principal may be categorised into performance communication, message reinforcement, and authority signals. The agent's consideration of these leads to perceived obligations and responses under the psychological contract.	The ex post management mechanisms of information systems and incentives create contract resources as well as address risk and contingencies	
			The agent's perceived obligations under the psychological contract assist the efficient allocation of the contract resources.	
Empirical Evidence	Principals hold that it is impossible to rely on a contract being sufficiently complete to address all contingencies, and such contingencies are better addressed through developing a positive relationship with the agent.		Rather than securing the written contract terms, the principals work with agents to secure the broader unwritten contract outcomes in preference to those of the written contract.	

Table 6.2 - Contributions of Thesis - continued (Source: author, based on Farndale, 2004, p. 251)

	Extent of Contribution			
Domain	Supported	Developed	New	
Methods		Signal categories are a methodological tool for analysing the social constructions between the principal and the agent as they work to respond to contract management challenges.		
Knowledge of Practice		Improvement of the <i>exante</i> tender process and contract design to include more flexible incentives and information systems will support <i>ex post</i> management outcomes.		
		Guidelines by public procurement regulatory bodies on <i>ex post</i> risk analysis, monitoring, and management of public contracts will enhance efficiency of contract outcomes.		

6.6.5 Opportunities for Future Research

This research is based on a theory building and social constructionist approach with a small number of cases of public contracts. Arising from this, there are two potential future research approaches. The first is to test the conceptual model using a survey questionnaire with a Likert Scale response options to allow conveyance of personal perspectives. This would test and further refine the model. Given that the majority of findings concern the principal agent relationship and its workings, the conceptual model has likely application to private sector contracts. A similar theory-building study could usefully be carried out on cases where the interorganizational principal agent relationships are between private sector firms, and the public procurement tender requirements are absent. This would increase generalisation of the conceptual model. Finally, since both agency theory and psychological contract signals influence the contract outcomes, a process study could be carried out to identify whether these mechanisms operate simultaneously or whether the mechanisms swing between agency theory and psychological contract depending on the state of the contract relationship or in response to contingencies as they arise.

CHAPTER 7 - CONCLUSION

This thesis explores *ex post* contract management mechanisms in seven cases of facilities management contracts resulting from public procurement tender processes in three higher education organisations. Using a qualitative and interpretative methodology, the study takes an inductive theory building approach to how and why managers address such challenges, and develops a conceptual model of *ex post* management mechanisms through the lenses of agency theory, the psychological contract, and signals. While it has the limitations of a theory building and social constructionist approach, it offers findings of theoretic, management, and policy relevance.

The evidence suggests that public procurement contracts entail frequent tenders and defined contracts, and give rise to expectations of low cost quality services which is reflected in the provision of limited budgets by the principal organisations. It also suggests that challenges for the *ex post* contract management are present due to the written contract incompleteness and the tension within the contract relationship due to frequent tendering required by public procurement policies.

The evidence supports that in public contracts the principal agent relationship is based on both written and psychological contracts and the *ex post* management mechanisms include the agency theory mechanisms of incentives and information systems, as well as psychological contract signals of performance communication, message reinforcement, and authority. The findings indicate why this dual approach is used. It is because principals find complete contracts difficult to write and contingencies are viewed as inevitable, some reliance on positive responses to the obligations under the agent's psychological contract is inevitable. In addition, the agent's response under the psychological contract is a more efficient way to allocate resources to remedy contract contingencies than by using the written contract information system alone. Therefore, while public contracts often prove incomplete and inflexible, maintaining a positive principal agent relationship provides solutions to contingencies, and secures the continuity of the contract for the benefit of both parties. Rather than relying solely on the written contract terms, principals work with agents to achieve broader unwritten contract goals in preference to the written objectives. This is why outcomes differ from those originally specified in the contract.

The evidence suggests that both agency theory and the psychological contract are required to better understand how and why managers use the *ex post* mechanisms of the contract. The thesis extends agency theory in public contracts by highlighting the importance of information systems used by the principal, and how together with the incentives, forms a resource for allocation towards the contract requirements and contingencies by the agent. It extends the psychological contract by applying it to the principal agent relationship, and identifying how the psychological signals influence the agent's responses. Through understanding these *ex post* mechanisms, managers may better address contract challenges and more fully understand the risks and opportunities when using *ex post* mechanisms of the written or the psychological contract. The written contract will eventually fail to provide a remedy due to its incompleteness, and the psychological contract will be limited to the extent of the resources created by information and incentives. The evidence also supports that more attention to flexible contract design may address a wider range of contingencies, and that innovative solutions to problems may be found by endeavouring to build the relationship and maintain a positive psychological contract.

Finally, the thesis addresses this researcher's perspectives as a practitioner managing contracts in the area of facilities management for some twenty seven years, of which the last eighteen have been spent managing public contracts as a principal. There are a number of emerging challenges for a public sector principal managing contracts, some of which have come into particular focus during this thesis process. These are the growing requirements to articulate the value of *ex post* management activities to auditors, to demonstrate to the organisation that *ex post* outcomes contribute to the strategic plan, and to develop organisational staff in the theory and practice of public contract management. The evidence of this research goes some significant way towards assisting the researcher to design, manage, and explain to stakeholders the value of informed contract management practice to the organisation. This thesis, then, offers a useful theoretic perspective to practitioners who wish to extend the contribution of publically procured facilities management contracts to their organisations.

REFERENCES

Ahimbisibwe, A, Muhwezi, M., and Nangoli, S. 2012. Outsourced contracts, buyer-supplier trust, supplier opportunistic behaviour and supplier performance in Ugandan public procuring and disposing entities (PDEs). *Journal of Public Procurement*. 12 (4), pp. 435–470

Ancarani, A and Capaldo, G. 2005. Supporting decision-making process in facilities management services procurement: a methodological approach. *Journal of Purchasing & Supply Management*. 11(5/6), pp. 232–241

Ashenfelter, O. and Bloom, D. E. 1984. Models of arbitrator behaviour: theory and evidence. *American Economic* Review. 74(1), pp.111-124

Austen-Baker, R. 2009. Comprehensive Contract Theory: A Four-Norm Model of Contract Relations. *Journal of Contract Law*. 25(3), pp. 216–243

Bahli, B, and Rivard, S. 2003. The information technology outsourcing risk: a transaction cost and agency theory-based perspective. *Journal of Information Technology*. 18(3), pp. 211–221

Bajari, P. and Tadelis, S. 2001. Incentives versus transaction costs: a theory of procurement contracts. *RAND Journal of Economics*. 32(3), pp. 387–407

Banker, R. D. and Hwang, I. 2008. Importance of measures of past performance: empirical evidence on quality of e-service providers. *Contemporary Accounting Research*. 25(2), pp. 307-337

Barney, J. B. 1991. Firm resources and sustained competitive advantage. *Journal of Management*. 17(1), pp. 99-120

Barthelémy, J. 2003. The seven deadly sins of outsourcing. *Academy of Management Executive*. 17(2), pp. 87–98

Basile, L. and Trani, R. 2008. Incomplete contracts modelling. *Metroeconomica*. 9(3), pp. 347-370

Bénabou, R. and Tirole, J. 2003. Intrinsic and extrinsic motivation. *Review of Economic Studies*. 70(3), pp. 489-520

Bensghir, T. K. and Tekneci, A. 2008. An evaluation of the outsourcing IS/ICT activities in Turkish ministerial computer departments. *Public Administration and Development*. 28 (2), pp. 94-104

Besanko, D., Dranove, D., and Shanley, M. 2000. *Economics of Strategy*. 2nd ed. New York: John Wiley & Sons Inc.

Bottom, W.P., Holloway, J., Miller, G.J., Mislin, A. and Whitford, A. 2006. Building a pathway to cooperation: negotiation and social exchange between principal and agent. *Administrative Science Quarterly*. 51(1) pp. 29-58

Bowers, J. L. 1972. *Managing the Resource Allocation Process*. 1st paperbound ed. Illinois: Richard D. Irwin Inc.

Brannick, T. and Coghlan, D. 2007. In defense of being native - the case of insider academic research. *Organisational Research Methods*. 10(1), pp. 59-74

Caldwell, N, Helen Walker, H., Harland, C., Knight, L., Zheng, J. and Wakeley, T. 2005. Promoting competitive markets: the role of public procurement. *Journal of Purchasing & Supply Management*. 11(5–6), pp. 242–251

Charmaz, K. 2004. Premises, principals, and practices in qualitative research: revisiting the foundations. *Qualitative Health Research*. 14(7), pp. 976-993

Cho, J. and Trent, A. 2006. Validity in qualitative research revisited. *Qualitative Research*. 6(3), pp. 319-340

Coase, R. 2006. The conduct of economics: the example of Fisher Body and General Motors. *Journal of Economics & Management Strategy*. 15(2), pp. 255-278

Coghlan, D. and Brannick, T. 2005. *Doing Action Research In Your Own Organisation*. 2nd ed. London: SAGE Publications Ltd.

Colebatch, H. K. 2005. Policy analysis, policy practice and political science. *Australian Journal of Public Administration*. 64(3), pp. 14-23

Commission of the European Communities. 2000. Commission interpretative communication on concessions under community law. *Official Journal of the European Communities* 2000/C 121/02, pp. 1–13

Commission of the European Communities. 2004. *Green Paper on Public-Private Partnerships and Community Law on Public Contracts and Concessions*. 30.4.2004 COM(2004) 327 final. Brussels: Office for Official Publications of the European Communities

Comptroller and Auditor General. 1996. *Procurement in Universities*. Dublin: Stationary Office

Council Directive 2007/66/EC of the European Parliament and of the Council of 11December 2007 amending Council Directives 89/665/EEC and 92/13/EEC with regard to improving the effectiveness of review procedures concerning the award of public contracts. *Official Journal of the European Communities* L335/31, 20.12.2007, pp. 31 – 46.

COMPTROLLER AND AUDITOR GENERAL. 2008. Special Report Department of Transport Driver Testing in the Road Safety Authority. Dublin: Stationary Office

Cooke, F. L. 2006. Outsourcing of public services and implications for managerial knowledge and careers. *Journal of Management Development*. 25(3), pp. 269-284

Costantino, N., Dotoli, M., Falagario, M. and Sciancalepore, F. 2012. Balancing the additional costs of purchasing and the vendor set dimension to reduce public procurement costs. *Journal of Purchasing & Supply Management*. 18(3), pp. 189-198

Croley, S. P. 1998. Theories of regulation: incorporating the administrative process. *Columbia Law Review.* 98(1), pp. 1-168

Cullinane, N. and Dundon, T. 2006. The psychological contract: a critical review. *International Journal of Management Reviews*. 8(2) pp. 113-129

Dalen, D. M., Moen, E. R. and Riis, C. 2006. Contract renewal and incentives in public procurement. *International Journal of Industrial Organization*. 24(2), pp. 269-285

Darwin, J., Duberley, J. and Johnson, J. 2000. Contracting in ten English local authorities: preferences and practices. *The International Journal of Public Sector Management*. 13(1), pp. 38-57

Davis, G. F. and Marquis, C. (2005) Prospects for organization theory in the early twenty-first century: institutional fields and mechanisms. *Organization Science*. 16(4), pp. 332-343

De Cuyper, N., Rigotti, T., De Witte, H. and Mohr, G. 2008. Balancing psychological contracts: validation of a typology. *The International Journal of Human Resource Management*. 19(4), pp. 543-561

Dewatripont, M. 2006. Costly communication and incentives. *Journal of the European Economic Association* 4(2/3), pp. 253-268

Domberger, S., Hall, C. and Li, E. A. L. 1995. The determinants of price and quality in competitively tendered contracts. *The Economic Journal*. 105(433), pp. 1454-1470

Domberger, S. and Jensen, P. 1997. Contracting out by the public sector: theory, evidence, prospects. *Oxford Review of Economic Policy*. 13(4), pp. 67-78

Donaldson, L. 1990. The ethereal hand: organizational economics and management theory. *Academy of Management Review*. 15(3), pp. 369-381.

Donaldson, L. and Davis, J. H. 1991. Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management*. 16(1), pp. 49-65

Duriau, V. J., Reger, R. K. and Pfarrer, M. D. 2007. A content analysis of the content analysis in organization studies: recent themes, data sources, and methodological refinements. *Organizational Research Methods*. 10(1), pp. 5-34

Easterby-Smith, M., Thorpe, R. and Jackson, P. R. 2008. *Management Research*. 2nd ed. London: SAGE Publications Ltd.

Eisenhardt, K. M. 1985. Control: organizational and economic approaches. *Management Science*. 31(2), pp. 134-149

Eisenhardt, K. M. 1988. Agency – and institutional – theory explanations: the case of retail sales compensation. *Academy of Management Journal*. 31(3), pp. 488-511

Eisenhardt, K. M. 1989. Agency theory: an assessment and review. *Academy of Management Review*, 14(1), pp. 57-74

Erridge, A. and McIlroy, J. 2002. Public procurement and supply management strategies. *Public Policy and Administration*. 17(1), pp. 52-71

Europe Economics. 2006. *Evaluation of Public Procurement Directives* [Online]. Available from: www.europe-economics.com [Accessed 2nd July 2010]

Farndale, E. 2004. *The intra-organisational power of the personnel department in higher education in the UK*, Unpublished PhD thesis, Cranfield University

Farneti, F. and Young, D.W. 2008. A contingency approach to managing outsourcing risk in municipalities. *Public Management Review*. 10(1), pp. 89-99

Fehr, E., and Falk, A. 1999. Wage rigidity in a competitive incomplete contract market. *Journal of Political Economy*. 107(1), pp. 106-134

Fehr, E. and Fischbacher, U. 2002. Why social preferences matter – the impact of non-selfish motives on competition, cooperation and incentives. *Economic Journal*. 112(478), pp. C1-C33

Fill, C. and Visser, E. 2000. The outsourcing dilemma: a composite approach to the make or buy decision. *Management Decision*. 38(1), pp. 43-50

Flynn, A., McKevitt, D. M. and Davis, P. 2013. The impact of size on small and medium-sized enterprise public sector tendering. *International Small Business Journal*. (October 1), pp. 1-9

Freese, C. and Schalk, R. 2008. How to measure the psychological contract? A critical criteria-based review of measures. *South African Journal of Psychology*. 38(2), pp. 269-286

Gephart, R. P. 2004. Qualitative research and the Academy of Management Journal. *Academy of Management Journal*. 47(4), pp. 454-462

Gilbert, C. G. and Christensen, C. M. 2005. Anomaly-seeking research: thirty years of development in resource allocation theory *IN* Bower, J. L. and Gilbert, C. G. (eds.) *From Resource Allocation to Strategy*. Oxford: Oxford University Press, pp.71-91

Gottschalk, P. and Solli-Sæther, H. 2006. Maturity model for IT outsourcing relationships, *Industrial Management & Data Systems*. 106(2), pp. 200-212

Guest, D. 2004. The psychology of the employment relationship: an analysis based on the psychological contract. *Applied Psychology: An International Review*. 53(4), pp. 541-555

Hamel, G. 1991. Competition for competence and inter-partner learning within international strategic alliances. *Strategic Management Journal*. 12(Summer), pp. 83-103

Hansson, L. 2010. Solving procurement problems in public transport: examining multiprincipal roles in relation to effective control mechanisms. *Research in Transport Economics*. 29(1), pp. 124-132

Harland, C., Knight, L., Lamming, R. and Walker, H. 2005. Outsourcing: assessing the risks and benefits for organisations, sectors and nations. *International Journal of Operations & Production Management*. 25(9), pp. 831-850

Hart, O. and Moore, J. 2008. Contracts as reference points. *The Quarterly Journal of Economics*. 123(1), pp. 1-48

Hätönen, J. and Eriksson, T. 2009. 30+ years of research and practice of outsourcing – exploring the past and anticipating the future. *Journal of International Management*. 15(2), pp. 142-155

He, J. and Wang, H. C. 2009. Innovative knowledge assets and economic performance: the asymmetric roles of incentives and monitoring. *Academy of Management Journal*. 52(5), pp. 919-938

Heiskanen, A., Newman, M. and Eklin, M. 2008. Control, trust, power, and the dynamics of information system outsourcing relationships: a process of contractual software development. *Journal of Strategic Information Systems*. 17(4), pp. 268-286

Herriot, P., Manning, W. E. G. and Kidd, J. M. 1997. The content of the psychological contract. *British Journal of Management*. 8(2), pp. 151-162

Hill, J. A., Eckherd, S., Wilson, Darryl and Greer, B. 2009. The effect of unethical behaviour on trust in a buyer-supplier relationship: the mediating role of the psychological contract violation. *Journal of Operations Management*. 27(4), pp. 281-293

Hodgson, G. M. 2004. Opportunism is not the only reason why firms exist: why an explanatory emphasis on opportunism may mislead management strategy. *Industrial and Corporate Change*. 13(2), pp. 401-418

Hseih, H. F. and Shannon, S. E. 2005. Three approaches to qualitative content analysis. *Qualitative Health Research*. 15(9), pp. 1277-1288

Isabella L. A. 1990. Evolving interpretations as a change unfolds: how managers construe key organisational events. *Academy of Management Journal*. 33(1), pp. 7-41

Jensen, M. C. and Meckling, W. H. 1976. Theory of the firm: managerial behaviour, agency costs, and ownership structure. *Journal of Financial Economics*. 3(4), pp. 305-360

Jensen, P. H. and Stonecash, R. E. 2004. The efficiency of public sector outsourcing contracts: a literature review', *Melbourne Institute Working Paper*, No. 29/04. [Online]. Available from: www.melbourneinstitute.com [Accessed 15th August 2010]

Jiang, B. and Qureshi, A. 2006. Research on outsourcing results: current literature and future opportunities. *Management Decision*. 44(1), pp. 44-55

Kakabadse, N. and Kakabadse, A. 2000. Critical review – outsourcing: a paradigm shift. *Journal of Management Development*. 19(8), pp. 670-728

Kakabadse, A. and Kakabadse, N. 2001. Outsourcing in the public services: a comparative analysis of practice, capability, and impact. *Public Administration and Development*. 21(5), pp. 401-413

Karjalainen, K. and Kemppainen, K. 2008. The involvement of small- and medium-sized enterprises in public procurement: Impact of resource perceptions, electronic systems and enterprise size. *Journal of Purchasing & Supply Management*. 14(4), pp. 230-240

Kidalov, M. V. and Snider, K.F. 2011. US and European public procurement policies for small and medium enterprises (SME); a comparative perspective. *Business and Politics*. 1(4), pp. 1-41

Kiewitz, C., Restubog, S. L. D., Zagenczyk, T. and Hochwarter, W. 2009. The interactive effects of psychological contract breach and organizational politics on perceived organizational support: evidence from two longitudinal studies. *Journal of Management Studies*. 45(5), pp. 806-834

Kim, Y. W and Brown, T. L. 2012. The importance of contract design. *Public Administration Review*. 72(5), pp. 687-696

Kimel, D. 2007. The choice of paradigm for theory of contract: reflections on the relational model. *Oxford Journal of Legal Studies*. 27(2), pp. 233-255

Kingshott, R. P. J. 2006. The impact of psychological contracts upon trust and commitment within the supplier-buyer relationships: a social exchange view. *Industrial Marketing Management*. 35(6), pp. 724-739

Koh, C., Soon, A., and Straub, D. W. 2004. IT outsourcing success: a psychological contract perspective', *Information Systems Research*. 15(4), pp. 356-357

Lawrence, T. B., Mauws, M. K., Dyck, B. and Kleysen, R. F. 2005. The politics of organisational learning: integrating power into the 4i framework. *Academy of Management Review*. 30(1), pp. 180-191

Lawther, W. C. and Martin, L. 2005. Innovative practices in public procurement partnerships: the case of the United States. *Journal of Purchasing & Supply Management*. 11(5-6), pp. 212-220

Leavy, B. 1994a. Two strategic perspectives on the buyer-supplier relationship. *Production and Inventory Management Journal*. 35, pp. 47-51

Leavy, B. 1994b. The craft of case-based qualitative research. *Irish Business and Administrative Research*. 15(1), pp. 105-118

Leavy, B. 2004. Outsourcing strategies: opportunities and risks. *Strategy & Leadership*. 32(6), pp. 20-26

Lee, T. 1994. Financial reporting quality labels: the social construction of the audit profession and the expectations gap. *Accounting, Auditing & Accountability Journal*. 7(2), pp.30-49

Leiringer, R., Green, S. D., Raja, J. Z. 2009. Living up to the value agenda: the empirical realities of through-life value creation in construction. *Construction Management & Economics*. 27(3), pp. 271-285

Llewellyn, N. 2001. The role of psychological contracts within internal service networks. *Service Industries Journal*. 21(1), pp. 211-226

Loader, K. 2010. Is local authority procurement 'lean'? An exploration to determine if 'lean' can provide a useful explanation of practice. *Journal of Purchasing & Supply Management*. 16(1), pp. 41-50

Logan, M. S. 2000. Using agency theory to design successful outsourcing relationships. *The International Journal of Logistics Management*, 11(2), pp. 21-32

Lonsdale, C. 1999. Effectively managing vertical supply relationships: a risk management model for outsourcing. *Supply Chain Management*. 4(4), pp. 176-183

Love, P. E. D., Edwards, D. J., and Irani, Z. 2012. Moving beyond optimism bias and strategic misrepresentation: an explanation for social infrastructure project cost overruns. *IEEE Transactions on Engineering Management*. 59(4), pp. 560-571

Luo, Y. 2002. Contract, cooperation, and performance in international joint ventures', *Strategic Management Journal*. 23(10), pp. 903-919

Lusch, R. F. and Brown, J. R. 1996. Interdependency, contracting, and relational behaviour in marketing channels. *Journal of Marketing*. 60(4), pp. 19-38

Lyne, C. 1996. Strategic government in the new local government. *European Journal of Purchasing & Supply Management*. 1(2), pp. 1-6

Macneil, I. R. 1974. The many futures of contract. *Southern California Law Review*. 47(691), pp. 691-816

Masterson, S. S. and Stamper, C. L. 2003. Perceived organizational membership: an aggregate framework representing the employee-organization relationship. *Journal of Organizational Behavior*. 24(5), pp. 473-490

McCubbins, M.D., Noll R. G. and Weingast, B. R. 1987. Administrative procedures as instruments of political control. *Journal of Law, Economics, & Organization*. 3(2), pp. 243-277

Mateus, R, Ferreira, J. A. and Carreira, J. 2010. Full disclosure of tender evaluation models: background and application in Portuguese public procurement. *Journal of Purchasing & Supply Management*. 16(3), pp. 206-215

Merkert, R. and O' Fee, B. 2013. Efficient procurement of public air services: lessons learned from European transport authorities' perspectives regions. *Transport Policy*. 29, pp. 118-125

McKevitt, D, Davis, P., Woldring, R, Smith, K., Flynn, A. and McEvoy, E. 2012. An exploration of management competencies in public sector procurement. *Journal of Public Procurement*. 12(3), pp. 333-355

Miles, M. B. and Huberman, A. M. 1994. *Qualitative Data Analysis*. 2nd ed. Thousand Oaks, California: SAGE Publications Inc.

Milgrom, P. and Roberts, J. 1986. Informational asymmetries, strategic behaviour, and industrial organisation. *Game Theory and Industrial Organization*. 77(2), pp. 184-193

Mintzberg, H. 1979. An emerging strategy of "direct" research. *Administrative Science Quarterly*. 24(4), pp. 582-589

Miozzo, M. and Grimshaw, D. 2008 Service multinationals and forward linkages with client firms: the case of IT outsourcing in Argentina and Brazil. *International Business Review*. 17(1), pp. 8-27

Mitnick, B. M. 1975. The theory of agency: the policing 'paradox' and regulatory behaviour. *Public Choice*. 24, pp. 27-42

Moe, T. M. 1984. The new economics of organisation. *American Journal of Political Science*. 28 (4), pp. 739-777

Morey, N.C. and Luthans, F. 1984. An emic perspective and ethnoscience methods for organizational research. *Academy of Management Review*. 9(1), pp. 27-36

Morrison, E. W. and Robinson, S. L. 1997. When employees feel betrayed: a model of how psychological contract violation develops. *Academy of Management Review*. 22(1), pp. 226-256

Murray, J. G. 2009. Towards a common understanding of the differences between purchasing, procurement and commissioning in the UK public sector. *Journal of Purchasing & Supply Management*. 15(3), pp. 198-202

National Public Procurement Policy Unit. 2009. *Public Procurement Guidelines – Competitive Process*. Dublin: Stationary Office

Nellore, R. and Söderquist K. 2000. Portfolio approaches to procurement. *Long Range Planning*. 33(2), pp. 245-267

Ngwenyama, O. K. and Sullivan, E. W. 2007. Outsourcing contracts as instruments of risk management: Insights from two successful public contracts. *Journal of Enterprise Information Management*. 20(6), pp. 615-640

Nikander, I. O. and Eloranta, E. 1997. Preliminary signals and early warnings in industrial investment projects. *International Journal of Project Management*. 15(6), pp. 371-376

Olsen, R. F., and Ellram, L. M. 1997. A portfolio approach to supplier relationships. *Industrial Marketing Management*. 26(2), pp. 101-113

O' Neill, G., Krivokapic-Skoko, B. and Dowell, D. 2010. Unpacking informal contractual relationships: psychological contracts established by Australian Business academics. *Irish Journal of Management*. 29(2), pp. 5-33

Orton, D. J. and Weick, K. E. 1990. Loosely coupled systems: a reconceptualization. *Academy of Management Review.* 15(2), pp. 203-223

Padovani, E. and Young, D. W. 2008. Towards a framework for managing high-risk government outsourcing: field research in three Italian municipalities. *Journal of Public Procurement*. 8(2), pp. 215-247

Parker, D. 1990. The 1988 Local Government Act and compulsive competitive tendering. *Urban Studies*. 27(5), pp. 653–667

Paul, R. J., Niehoff, B. P. and Turnley, W. H. 2000. Empowerment, expectations, and the psychological contract – managing the advantages and gaining the advantages. *Journal of Socio-Economics*. 29(5), pp. 471-485

Paulin, M., Perrien, J., and Ferguson, R. 1997. Relational contract norms and effectiveness of commercial banking relationships. *International Journal of Service Industry Management*. 8(5), pp. 435-423

Pentland, B. 1999. Building process theory with narrative: from description to explanation. *Academy of Management Review*. 24(4), pp. 711-724

Pettigrew, A. M. 1997. What is processual analysis? *Scandinavian Journal of Management*. 13(4), pp. 337-348

Phillips, E. M. and Pugh, D. S. 2005. *How to get a PhD*. 4th ed. Maidenhead: Open University Press

Piore, M. J. 1979. Qualitative research techniques in economics. *Administrative Science Quarterly*. 24(4), pp. 560-569

Poppo, L. and Zenger, T. 2002. Do formal contracts and relational governance function as substitutes or complements? *Strategic Management Journal*. 23(8), pp. 707-725

Potoski, M. 1999. Managing uncertainty through bureaucratic design: administrative procedures and state air pollution control. *Journal of Public Administration Research and Theory*. 9(4), pp. 623-639

Price, I. 2012a. Organizational ecologies and declared realities *IN*: Alexander, K. and Price, I. (eds.) *Managing Organizational Ecologies*. New York: Routledge, pp. 11-22

Price, I. 2012b. The social construction of FM communities. *IN:* Alexander, K. and Price, I. (eds.) *Managing Organizational Ecologies*. New York: Routledge, pp. 83-93

Price, I., Ellison, I. and MacDonald, R. 2009. Practical post-modernism: FM and socially constructed realities *IN* 8th Euro FM research symposium, Amsterdam, June 16 – 17, 2009, pp. 1-15

Price, I. 2002. Can FM evolve? If not, what future? *Journal of Facilities Management*, 1(1), pp. 56-69

Reeves, E. and Barrow, M. 2000. The impact of contracting out on the costs of refuse collection services: the case of Ireland. *The Economic and Social Review*. 31(2), pp. 129-150

Ring, P. S. and Van De Ven, A. H. 1994. Developmental processes of cooperative interorganizational relationships. *Academy of Management Review*. 19(1), pp. 90-118

Robinson, S. L. 1996. Trust and the breach of the psychological contract. *Administrative Science Quarterly*. 41(4), pp. 574-599

Robinson, S. L., Kraatz, M. S. and Rousseau, D. M. 1994. Changing obligations and the psychological contract: a longitudinal study. *Academy of Management Journal*. 37(1), pp. 137-152

Robinson, S. and Rousseau, D. M. 1994. Violating the psychological contract: not the exception but the norm. *Journal of organizational* behaviour, 15(3), pp. 245-259.

Robinson, S. L. and Morrison, E. W. 2000. The development of psychological contract breach and violation: a longitudinal study. *Journal of Organizational Behaviour*. 21(5), pp. 525-546

Roehm, M. L. and Roehm, H. A. 2011. The influence of redemption time frame on responses to incentives. *Journal of the Academy of Marketing Science*. 39(3), pp. 363-375

Roehling, M. V. and Boswell, W. R. 2004. Good cause beliefs in an at-will world? A focussed investigation of psychological versus legal contracts. *Employee Responsibilities and Rights Journal*. 16(4), pp. 211-231

Ross, S. A. 1973. The economic theory of agency: the principal's problem. *American Economic Review*. 63(2), pp. 134-139

Rousseau, D. M. 1989. Psychological and implied contracts in organization. *Employee Responsibilities Rights Journal*. 2(2), pp. 121-139

Rousseau, D. M. 1995. *Psychological Contracts in Organizations*, Thousand Oaks, CA: Sage Publications

Rousseau, D. M. 2001. Schema, promise and mutuality: The building blocks of the psychological contract. *Journal of Occupational & Organizational Psychology*. 74(4), pp. 511-541

Rousseau, D. M. 2004. Psychological contracts in the workplace: understanding the ties that motivate. *Academy of Management Executive*. 18(1), pp. 120-127

Rousseau, D. M., Sitkin, S. B., Burt, R. S. and Camerer, C. 1998. Not so different after all: a cross-discipline view of trust. *Academy of Management Review*. 23(3), pp. 393-404

Rousseau, D. M. and Tijoriwala, S. A. 1998. Assessing psychological contracts: issues, alternatives and measures. *Journal of Organizational Behaviour*. 19(S1), pp. 679-695

Sabherwal, R. 1999. The role of trust in outsourced IS development projects. *Communications of the ACM*. 42(2), pp. 80-86

Sappington, D. E. M. and Stiglitz, J. E. 1987. Privatization, Information and Incentives. *Journal of Policy Analysis and Management*. 6(4), pp. 567-582

Saunders, M., Lewis, P. and Thornhill, A. 2003. *Research Methods for Business Students*. 3rd ed. England: Education Ltd.

Seavey, W. A. 1920. The rationale of agency. The Yale Law Journal. 29(8), pp. 859-895

Shannon, C.E. 1948. A mathematical theory of communication. *The Bell System Technical Journal*. 27(3), pp. 379-423

Shapiro, S. P. 2005. Agency theory. *Annual Review of Sociology*. pp. 265-274

Sia, S. K., Koh, C. and Tan, C. X. 2008. Strategic manoeuvers for outsourcing flexibility: an empirical assessment. *Decision Sciences*. 39(3), pp. 407-443

Sonnino, R. and McWilliams, S. 2011. Food waste, catering practices and public procurement; a case study of hospital food systems in Wales. *Food Policy*. 36(6), pp. 823-829

Spence, A. M. 1973. Time and communication in economic and social interaction. *The Quarterly Journal of Economics*. 87(4), pp. 651-660

Spence, A. M. 2002. Signalling in retrospect and the informational structure of markets. *The American Economic Review*. 92(3), pp. 434-459

Stichweh, R. 2000. Systems theory as an alternative to action theory? The rise of 'communication' as a theoretical option. *Acta Sociologica*. 43(1), pp. 5 -13

Stiglitz, J. E. 2002. Information and the change in the paradigm in economics. *The American Economic* Review. 92(3), pp. 460-501

Stiglitz, J. E. 2004. Information and the change in the paradigm in economics, part 2. *The American Economic Review*. 48(1), pp. 460-501

Suazo, M. M., Martínez, P. G. and Sandoval, R. 2009. Creating psychological and legal contracts through human resource practices: a signaling theory perspective. *Human Resource Management Review*. 19(2), pp. 154-166

Tadelis, S. 2012. Public procurement design: lessons from the private sector. *International Journal of Industrial Organization*. 30(3), pp. 297-302

Tirole, J. 2009. Cognition and incomplete contracts. *American Economic Review*. 99(1), pp. 265-294

Thai, K. V. 2001. Public procurement re-examined. *Journal of Public Procurement*. 1(1), pp. 9-50

Van de Ven, A. H. 1989. Nothing is quite so practical as a good theory. *Academy of Management* Review. 14(4), pp. 486-488

Van de Ven, A. H. and Poole, M. S. 1995. Explaining development and change in organizations. *Academy of Management Review*. 20(3), pp. 510-540

Van de Ven, A. H. and Poole, M. S. 2005. Alternative approaches for studying organizational change. *Organization Studies*. 26(9), pp. 1377-1404

Van Mannan, J. 1979. Reclaiming qualitative methods for organizational research. *Administrative Science Quarterly*. 24(4), pp. 520-526

Ventovuori, T. 2007. Analysis of supply models and FM service market trends in Finland – implications on sourcing decision-making', *Journal of Facilities Management*. 5(1), pp. 37-48

Ventovuori, T. and Lehtonen, T. 2006. Alternative models for the management of FM services – an empirical investigation. *Journal of Corporate Real Estate*. 8(2), pp. 73-90

Walls, M. 2005. How local governments structure contracts with private firms – economic theory and evidence on solid waste and recycling contracts. *Public Works Management & Policy*. 9(3), pp. 206-207

Warner, J. 2007. Analogies between linguistics and information theory. *Journal of the American Society for Information Science and Technology*. 5(3), pp. 309-321

Weick, K. E. 1976. Educational organizations as loosely coupled systems. *Administrative Science Quarterly*. 21(1), pp. 1-19

Williamson, O. E. 1973. Markets and hierarchies: some elementary considerations. *The American Economic Review*. 63(2), pp. 316–318

Williamson, O. E. 1979. Transaction-cost economics: the governance of contractual relations. *Journal of Law and Economics*. 22(2), pp. 233-261

Williamson, O. E. 1999. Strategy research: governance and competence perspectives. *Strategic Management Journal*. 20(12), pp. 1087-1108

Williamson, O. E. 2002. The theory of the firm as governance structure: from choice to contract. *Journal of Economic Perspectives*. 16(3), pp. 171-195

Yin, R. K. 1993. Applications of Case Study Research. Newbury Park, CA: Sage Publications

Yin, R. K. 2009. *Case Study Research: Design and Methods*. 4th ed. Thousand Oaks, CA: Sage Publications

Zineldin, M. and Bredenlöw, T. 2003. Strategic alliance: synergies and challenges: a case of strategic outsourcing relationship 'SOUR'. *International Journal of Physical Distribution & Logistics Management*, 33(5), pp. 449-464

Zhu, Z., Hsu, K. and Lillie, J. 2001. Outsourcing – a strategic move: the process and the ingredients for success. *Management Decision*. 39(5), pp. 373-378

APPENDIX I - MAIN STUDY INTERVIEW QUESTIONNAIRE AND WRITTEN CONTRACT

I 1.1 – Interview Questionnaire Based on the First Conceptual Model		
Propositions	Questions	
Written Contract Incompleteness Proposition P2: Principals use written contract incompleteness as opportunities to create additional obligations on the	 Please describe a public sector contract managed by you that is in its post-tender phase. For example, could you describe the specified contract services, the endusers who benefit, and the managers and operatives who facilitate the service? What was the tender value? 	
agent to improve on the written contract outcomes.	3. How long has the contract been in operation?4. What is the contract duration and are there any permitted extensions?	
	5. How important is this contract to your organization? For example, to what extent does it provide important benefits to your organization?	
	6. Does the written contract specify all the services actually required or provided by your organization?	
	7. To what extent does lack of completeness or clarity in the written contract generate additional discussions or work? For example, would it lead to additional meetings, communications, etc.?	
Contract Information Systems Proposition P1: Principals rely primarily on information systems of the written contract to induce the agent to perform towards the contract outcomes.	 8. Please describe any contract-specified information systems between the client and the contractor to monitor and ensure performance? For example, contract meetings, reports, KPI's, committees, etc.? 9. To what extent do you find these contract information systems helpful in monitoring performance and correcting any deviations? 	

I 1.1 – Interview Questionnaire Based on the First Conceptual Model (continued)

Propositions	Questions
Contract Incentives	 10. What do understand are there contract-specified incentives for the service provider? For example, contract payments, possible penalties or bonuses? 11. Are there any other incentives not specified in the contract, for example the potential benefit of the experience, possible increase in company's market reputation, or increase in the company's future tender prospects, etc.?
Contract Relationship	 12. To what extent is the client-contractor managers' relationship useful in resolving contract difficulties? For example, following up on complaints, performance issues, or payment queries? 13. To develop this relationship, how frequently would you engage in purely social conversations or activities with the contract manager in the partner organization? Frequently, sometimes, never?

Propositions	Questions	
Proposition P3: Principals use visible, non-functional, and non-enjoyable expenditures of time as signals to promote behaviours by the agent towards the desired contract outcomes. [These questions addressed to Principal or Client's Manager]	 14. In addition to the formal contract information systems, are there client actions or activities you use to indirectly draw attention to service performance issues? For example, would you use such visible demonstrations as additional client time or energy, additional meetings, telephone calls, or client inspections? 15. To what extent do you feel these client actions are useful in promoting service performance levels of the contract? 	
Proposition P9: Agents use imperfectly observed signals from principals to better understand and perform towards the desired contract outcomes. [These questions addressed to Agent or Service Provider Manager]	 16. In addition to the formal contract information systems, are there other client actions or activities used to draw attention to service performance issues or requirements? For example, activities such as additional visible client time or energy, additional client required meetings, client telephone calls, or client inspections? 17. To what extent do you feel these client actions are useful in promoting service performance levels of the contract? 	

I 1.2 – Interview Questionnaire Based on the Second Conceptual Model
(continued)

(continued)		
Propositions	Questions	
Proposition P4: Principals use their access to contract resources such as budgets, expertise, or social skills as signals to promote behaviours by the agent towards the desired contract outcome.	 18. To what extent do you think the client manager's authority over the contract budget supports their influence in contract matters? For example, would people pay more attention to someone because they control the contract budget? 19. To what extent do you think the client manager's technical or contract expertise supports their influence in contract matters? For example, would people pay more attention to someone because they are technical experts on contract matters? 20. To what extent do you think the client manager's social skills supports their influence in contract matters? For example, would people pay more attention to someone 	
Proposition P5: Principals use the involvement of organizational leadership figures in contract situations or events as signals to promote behaviours by the agent towards the desired contract outcomes.	21. To what extent do you think the client manager's access to senior management figures supports their influence in contract matters? For example, would people pay more attention to someone because they have frequent contact with senior management, or can get these figures to attend contract events?	
Proposition P6: Principals use increased formality in contract communications as information signals of dissatisfaction with the agent's performance or the contract outcomes.	22. Do you feel the client manager's tone of communication indicates their satisfaction or dissatisfaction with the contract performance? For example, would informal and formal tones indicate information regarding the client's satisfaction?23. To what extent does the client manager highlight information that may be of use in a future tender process? Can you give examples?	

Propositions	Questions
Proposition P7: Principals use additional contract meeting times or attendances as penalty or incentive signals to induce the agent towards the desired contract outcomes.	 24. To what extent does the client manager arrange additional events or activities to highlight problems, encourage performance, or celebrate improvements? For example, additional meetings or agenda items to highlight problems or notes of congratulations after particular achievements? 25. To what extent does the client manager arrange for senior figures (in either organization) to attend meetings in recognition of important contract issues or events? Can you give examples?
Proposition P8: Principals use informal time spent resolving contract difficulties or relationships as a signal to generate social obligation by the agent towards the desired contract outcomes.	 26. Does the client manager arrange informal meetings or spend time to work through difficulties in the contract? For example, off-line meetings, 'off the record' conversations? 27. Does the client manager spend time developing relationships or expressing gratitude or trust with member of the service provider's team? For example, having informal conversations or meetings?
Other potential ex post Mechanisms	28. Do you use any other means, not yet discussed, of ensuring or promoting good service performance? For example, staff meetings, IT systems, focus groups, consultants, statistics, benchmarking, references to future tender processes, etc.

I 2.1 - Written Contract Case A Interview Excerpts			
Code Descript	on Principal – Case A (PA)	Agent – Case A (AA)	
WC Written Contract	(A-2) We employ contracted services to a number of properties (A-2) The set-up of the contract is normally done by myself and the owner of the company. (A-2) it's left to be managed on a monthly basis with a Supervisor designated in-house here, MP, and a dedicated Contract Relationship Manager, MA from CleanServ (A-4) At the moment it's around €5,000 a month. (A-4) We have been dealing with this contractor for about seven or eight years (A-5) It's very important to have a good service provided to an area A good contract service is vitally important if it's off-campus	came first to look after building C was a brand new building. (A-2) We have been awarded a section of the UniCampus contract, we're in a standstill period at the moment, we're just waiting for everything to be rubber stamped, and giving time to the other contractors, who weren't successful, time to appeal any decisions. (A-2) Obviously when the tender went out we would have	

I 2.1 - Written Contract Case A Interview Excerpts (continued)			
Cod	le Description	Principal – Case A (PA)	Agent – Case A (AA)
WC	Written Contract	(A-4) It's very important to have a good service provided to an area, particularly given the fact that we're using contractors in off-site and off-campus properties which are more difficult to manage, and when we manage most of the campus cleaning with in-house staff. A good contract service is vitally important if it's off-campus. (A-5) because of the time you can spend managing the contract off-site if there are problems with it. If it's next to you it's easy, but if you have to go and travel to site, even if it's only across the road, it's very time-consuming if a contract isn't running right, or incorrectly, dealing with complaints from customers and passing them on. (A-6) when we started up this agreement with the company. We specified the minimum frequency in cleaning. We based it on an outcome basis that everywhere has to be to our standard, with absolute minimum frequency.	(A-6) Certainly back when the original contract started it would have been fairly flexible. In that there would have been a quotation given in for just how many staff we were going to provide and the number of days a week of the service being provided. (A-18) From our manager's point of view, it's the payroll for the building. They know exactly the budget for the building. We measure that in hours. So, the manager has a certain number of hours per week, per building. (A-20) It's equipping our managers with the knowledge of how to clean the carpets with the new methods, or how to do the job on the floor with the new pads that we have done in UniCampus using diamond pads that restore floors, stone floors.

I 2.1 - Written Contract Case A Interview Excerpts (continued)			
Cod	e Description	Principal – Case A (PA)	Agent – Case A (AA)
WC	Written Contract	(A-7) if you put in too much detail it can become a battleground as well. In that if you put too much detail in, then if you missed one thing out, then the answer is "well, you didn't ask me to do that". So I think the relationship is all-important as well as what's written down. (A-7) You build the relationship, because if you are solely relying on what's printed, the one thing you miss will be the one thing you need. (A-8) I think a too-detailed document can become a bit of a weapon between the two parties.	(A-20) With our contract managers, we try to give them all the information that we can. Whether that be methods of cleaning carpets in UniCampus, so that they can provide that service, that knowledge, to do the job without having to bring in the industrial crew to do extra jobs. We also train all our managers in communicating with our front line people, our cleaning staff. So whether we are bringing in new products, new processes, new methods of cleaning floors, we would train our managers who in turn then will train their own staff. (A-21) MA, who would be the main point of contact in UniCampus, would possibly have up to sixty or seventy staff that she would be responsible for. She would also have three or four area supervisors who answer to her.

I 2.2 - Written Contract Case B Interview Excerpts				
Code Description		Principal – Case B (PB)	Agent – Case B (AB)	
WC	Written Contract	(B-2) Well we have a contract which we have awarded to an organisation called VetServ, and who have supplied us with a clinical and financial management system for UniVet Veterinary Hospital. (B-2) The annual contract value was the first year €54,000, plus VAT obviously, and then for each following year we would pay €19,300 annually and that includes a certain amount of support, and over above that we pay for additional support. We pay for additional support if we need it, if we call someone out, or if we want something new, we pay for that separately. But it does include annual upgrades or periodic upgrades of the software. So anything new that's developed for commercial practice, we get this as part of the deal. And it includes a hundred site licences. (B-3) About two years. The original software was supplied by the same company, but as I said, in its original version it had been there for about ten years or so. (B-4) I think it's a rolling contract that would go on year by year.	(B-3) And the contract was to provide a case management cum accounting system for the veterinary hospital, a practice management system for the veterinary hospital. (B-3) We have had this relationship since 98, since 1997, 1998 really. (B-3) But there was an ongoing support contract so that we could cover any issues that might arise or future development work. (B-3) In the year 2000 we implemented an accounts system because at the time they needed because they were liable for VAT, which they hadn't been up to that. So we put an accounts module onto the management system at that point.	

I 2.2 - Written Contract Case B Interview Excerpts (continued)				
Code Description		Principal – Case B (PB)	Agent – Case B (AB)	
WC	Written Contract	(B-4) It's very, very important. Because we can't operate our hospital efficiently without it, you see. We can't do things like count the cases accurately. We can't communicate between different clinical departments accurately. We can't communicate with clients accurately. We can't communicate with clients accurately, with commercial vets accurately. And another aspect is that we have linked up the VetServ system onto our clinical labs management system. So that test results it can be exported directly from the laboratories and go back to the clinicians on line as it were. So it is much better than it was. (B-8) What was specified in the contract, though, was training. A certain amount of training by professionals is included in the fee. (B-14) So in our new contract now, we have specified that we get those regular software updates and those versions of the software upgrades that are applicable to commercial veterinary practices as well.	(B-3) And then, this particular contract was where we had continued in our business to develop a practice management software for commercial veterinary practice. And it was along slightly different lines as to what the original system was. The college became aware of this. We obviously made them aware of this, and they had a look at it over time. And it was a better way of doing things. (B-5) There was a written contract, yes indeed. I can't remember all the details of it now. I probably should have it in front of me. There was a written contract which specified what we would provide. At each stage we would have outlined a proposal along with our costs which in turn developed into a contract. In earlier days there wasn't any particular contract coming from the other side and it was a case of accepting our proposal with amendments. It was done by agreement. This last round was somewhat similar, but probably more formalised in that the contract wasn't quite our wording as it had been before, you know.	

I 2.2 - Written Contract Case B Interview Excerpts (continued)			
Code Description		Principal – Case B (PB)	Agent – Case B (AB)
WC	Written Contract	(B-17) A procurement manager in the university was involved in drawing up the original specification.	(B-6) I don't think that anyone is in anyway worried about the contract at this point, them or us for that matter. (B-6) No, it's not in the contract [information systems]

APPENDIX II - WRITTEN CONTRACT MANAGEMENT MECHANISMS INTERVIEW TRANSCRIPT EXCERPTS

	II 1.1 – Contract Incentives Case A				
Cod	le Description	Principal – Case A (PA)	Agent – Case A (AA)		
IBP	Contract incentives (benefits or penalties)	(A-4) At the moment it's around €5,000 a month. (A-10) They are dealing with a public body. It's a regular payment it's not something that's going to go to the wall tomorrow. (A-11) I think to have the UniCampus brand on their portfolio is a selling point for them when they go to get other business. When they are seeking future business, to say that within their current portfolio of business they have places like a university, it proves that they have been there for a period of time, and is a comfort to and may a selling point to future clients they are going to.	(A-4) The portion of the work that we have with UniCampus prior to going to tender was €140,000. (A-5) It's very, very important. The one disadvantage CleanServ has is that we don't have a large third level institution, what we would see in a large campus type contract. We have large office cleaning contracts, retail contracts, but we don't have and still don't have a large third level institution. (A-5) Although we were working for UniCampus, they were small buildings. But it was great to have it as a reference if we were going for other buildings. (A-5) The great benefit of it is that it's the centre of the city. I have a large management team in the centre of the city in the morning time.		

	II 1.1 – Contract Incentives Case A (continued)			
Code	Description	Principal – Case A (PA)	Agent – Case A (AA)	
IBP	Contract incentives (benefits or penalties)		(A-6) And the great thing about any work from any government contract is you never have to worry about getting paid. They pay on time. (A-10) From an incentive point	
			of view, purely the only incentive as a contractor is getting the contract. Having a contract that you know is in place for a predetermined time, where that is a three year contract with an option for a further year.	
			Certainly on government contracts it's very nice to know that you're undertaking a job that you know you are going to get paid for at the end of every month. Whereas with private sector work you don't have that guarantee.	
			(A-10) The drawback is that it's exceptionally price competitive at the detriment of the service element. If you wanted to be sure to give a good job, the public procurement seems to be solely fixed on price, not on how the service is going to be delivered, or how damage is going to happen to the service.	
			nappen to the service.	

II 1.1 – Contract Incentives Case A (continued)			
Cod	de Description	Principal – Case A (PA)	Agent – Case A (AA)
IBP	Contract incentives (benefits or penalties)		(A-10) If you wanted to be sure to give a good job, the public procurement seems to be solely fixed on price, not on how the service is going to be delivered, or how damage is going to happen to the service.
			(A-11) The other benefit, we use the word more so than incentive, is the actual reference. It's great to have government work and you can use some contracts as a reference, whether it be for an educational institution, or the public authorities which often have very sensitive areas, that you can show that you've got good security in place for your staff, and vetting for your staff.

	II 1.2 – Contract Incentives Case B			
Cod	le Description	Principal – Case B (PB)	Agent – Case B (AB)	
IBP	Contract incentives (benefits or penalties)	(B-2) The annual contract value was the first year €54,000, plus VAT obviously, and then for each following year we would pay €19,300 annually, and that includes a certain amount of support, and over above that we pay for additional support. (B-8) A very significant incentive for the service provider is being associated with UniVet Veterinary Hospital, a major institution, a big third level institution. Certainly I know from looking at their marketing data, they have relied on that quite heavily, to say that they are associated with UniVet. And I think that has been useful to them. (B-20) They have also been asked to come in and demonstrate their software to students, particularly the veterinary nursing students. And they see that as a big advantage because these veterinary nursing students go out and work in various commercial veterinary practices, obviously saying 'well, I know how to work VetServ' and that's clearly an influence on the practice.	(B-2) It was €56,000. That was the cost of providing and developing the software, and the annual support cost, I think it is about €12,000 to €14,000. (B-4) It is yes. You know, the UniVet college is the qualifying college for all veterinary surgeons throughout Ireland and most of our customers have gone through there, and it is a flagship site for our business. (B-8) Apart from the fact that they are flagship, we would learn things from the fact that it's a veterinary hospital using the system while in practice the needs are somewhat different. (B-9) But we learn from both as to what's useful in each environment. And quite often, technically speaking, there are systems in one that is useful to the other. There are benefits in that regard.	

	II 1.2 – Contract Incentives Case B (continued)			
Cod	le Description	Principal – Case B (PB)	Agent – Case B (AB)	
IBP	Contract incentives (benefits or penalties)	(B-22) We are very aware of the need for our students, for example the vet students, to be proficient in using the clinical software systems, being able to use it for research purposes for example. Basically to see how many cases of a particular disease or whatever we have had in the past over a period. So I think that would be an opportunity for the service provider to be invited to come in and talk to the students, and they are happy to do so. (B-23) So in all the reports that go out to referring vets and clients there would be a degree of branding there. That would be an advantage to VetServ.	(B-9) But on top of that, you know, they have a programme which is about business for veterinary practice, and we have contributed to that, showing how VetServ could be used to manage the business, and what KPIs and so on they should be looking for through something like VetServ. (B-10) We find that there are other things outside of the relationship to do with the contract that are useful or beneficial to both parties. We have looked at doing joint conferences. We are involved in the UniVet conference and so on. (B-20) But we have discussions about other things that influence both our organisations. So I might ring up and ask, you know, what's the best organisation to phone in relation to this? Or, do you have any contacts in this organisation? You know, again it's a two way-street.	

	II 2.1 – Contract Information System Case A			
Coe	de Description	Principal – Case A (PA)	Agent – Case A (AA)	
IS	Contract information systems	(A-8) Yes, our supervisor would conduct a joint audit on a monthly basis. And she would report back the results of that audit to me. For any areas that are falling down, a timeframe would be set for rectification. (A-9) the information provides a history of how the contract is performing over a period of years. And then, if there is a problem, you can genuinely view if it's an isolated incident rather that a continual problem. (A-12) they meet formally on a monthly basis	(A-9) The monthly information meeting between the managers is the information system. (A-10) So, without that regular input from the Housekeeping Department in UniCampus, if it was run like some other government contracts that possibly should have the same flexibility in the manpower, it wouldn't happen. (A-15) I suppose with something like that would be where you might be saying where there might be a fall off in the level of service. I suppose the way things are now it's very easy for a member of UniCampus staff, obviously if they had a difficulty where their office wasn't being cleaned, they might send an electronic email to P, who would, in turn then, forward it on to our own office here. (A-16) If there as an issue raised at the weekly or fortnightly walk arounds with MP, that would be what they observed at that moment or time.	

	II 2.1 – Contract Information System Case A (continued)			
Cod	le Description	Principal – Case A (PA)	Agent – Case A (AA)	
IS	Contract information systems		(A-26) What we have received from time to time from our fortnightly walk arounds on our audits (MP would be the person to sign off on them), if there is a positive comment to be made, MP will put it onto the additional comments section which is lovely for my own managers because they know I'm going to see that. Actually signed and written by MP. (A-28) So I don't really know how much an informal meeting could work in what we do because you're measuring the standard of cleaning at a given point in time. (A-28) My impression of MP is that she wouldn't let you away with a whole lot either. She had a job to do. If the building isn't up to standard, she's going to say it because she's not signing off on her fortnightly audit if it's going P and myself and it wasn't right.	

	II 2.1 – Contract Information System Case A (continued)			
Co	de Description	Principal – Case A (PA)	Agent – Case A (AA)	
IS	Contract information systems		(A-26) Somebody has said something, or from time to time, people in the college have sent an email to Housekeeping thanking them for a particular job that was done, it's always passed on. It's sent to ourselves first then always passed on. It's a lovely gesture. It doesn't take a whole lot, but very seldom does the cleaning staff get thanked for the job. It's usually when there is something wrong when they are contacting you. But it's nice to get something positive. We all like to have our egos stroked a bit! (A-27) We don't have review meetings, which I do think P is going to change this with the new contract. (A-29) This is an audit done on the 14 th February in UniCampus building C, signed by MP. And MP wrote 'attend to toilet on back stairs: toilet rolls – toilet rolls not to be left on cistern, only small ones'. So MP will communicate this way (A-29) 'Bin liners in A House, I have spoken to staff, this is never to happen again'.	

	II 2.2 – Contract Information System Case B			
Cod	e Description	Principal – Case B (PB)	Agent – Case B (AB)	
IS	Contract information systems	(B-6) Regular meetings and workshops during the implementation phase of VetServ. (B-7) We have a snag list which one member of our staff compiles and relays to AB at intervals. (B-7) I think there is a little bit in the contract about communications, but a lot of it is informal. (B-8) To be honest it happens much more informally now where somebody will email or ring up and say 'AB we have a problem and can you come and fix it?' And it seems to work that way. (B-22) I think we said that periodically once a year we would review it and we are to have one of those meetings quite soon.	(B-6) The meetings are informal. The meetings weren't part of the contract as such. (B-6) We are all interested in progressing the system's ability and to meet as many people's requirements. (B-10) We can answer questions they may have, and similarly they can answer questions we may have. (B-15) I would find them very useful because, at the end of the day, if the client is there wanting something else, and we can't discuss it or aren't willing to discuss it or considering delivering it then the client isn't going to be too happy. (B-22) Yes, well I suppose as well we have implemented an IT system for tracking technical issues and so on. We would discuss those on a regular basis, you know. That's a little information system of its own that's separate from the system and which is available to them. We can view it as well. We can jointly review it.	

APPENDIX III - CONTRACT INCOMPLETENESS AND THE PSYCHOLOGICAL CONTRACT

INTERVIEW TRANSCRIPT EXCERPTS

	III 1.1 – Written Contract Incompleteness Case A			
Coe	de Description	Principal – Case A (PA)	Agent – Case A (AA)	
WCI	Written contract Incompleteness	(A-2) We employ contracted services to a number of properties have the building A, building B, and a new building that came on stream last year, building C, which are all supplied services by one contractor. (A-4) We have been dealing with this contractor for about seven or eight years, but the contract has grown over that period as buildings came on stream. (A-6) We based it on an outcome basis that everywhere has to be to our standard, with absolute minimum frequency. Sometimes if there were areas which may need levels of service or specific events happening might need extra services. Our contract supervisor would liaise with the manager of the cleaning company to arrange those special services.	(A-3) When we started the contract, when we originally came first to look after building C was a brand new building So, bits of it came on in different parts. (A-4) The other buildings would have come on subsequent to that. There was a building down in Z street that would have come on a couple of years later. And then there was obviously the new building that would have come on in 2010, that is building C. (A-12) What would happen regarding UniCampus would be that if and when there was a new building coming on or there was a new area that might require cleaning, the head of the housekeeping in UniCampus, P, would contact myself directly and I would go in and see P.	

	III 1.1 – Written Contract Incompleteness Case A (continued)			
Cod	de Description	Principal – Case A (PA)	Agent – Case A (AA)	
WCI	Written contract Incompleteness	(A-8) I think a too-detailed document can become a bit of a weapon between the two parties. (A-12) If you don't have that, you have a very difficult relationship and the service will fall down. (A-30) In-house we embarked on the Q-Mark, and we gained the Q-Mark Award two years ago. And as part of that process our operation is audited on a yearly basis. And that has highlighted two areas where we are falling down, or not so much falling down, but not demonstrating enough of what we do. We're actually working on devising a whole measurement of KPI's. Starting with the contract areas, we hope to put into place so that we're not just auditing the cleaning services, so that we're auditing the whole operation and the value of the contract.	(A-16) If the builders were finished in a certain area, and we were to take over the next area or the next floor, if the UniCampus staff had moved into those areas, we'd have the weekly meetings and get then the instruction "from next week I want you to do this and to do that". (A-19) And if there is an additional requirement for anything extra, we have to try and do that within those hours. So, whether that be allocating some staff in to do an extra job, there is no additional resources, financial resources, to carry out the job. You just have to try and manage what we have.	

	III 1.1 – Written Contract Incompleteness Case A (continued)			
Cod	de Description	Principal – Case A (PA)	Agent – Case A (AA)	
WCI	Written contract Incompleteness	(A-31) And also, we would make sure it's part of our audit process that all the invoices were in on time, or were there any problems with the invoices.	Agent – Case A (AA)	

	III 1.2 – Written Contract Incompleteness Case B			
Code Description		Principal – Case B (PB)	Agent – Case B (AB)	
WCI	Written contract Incompleteness	(B-6) I think a lot of issues only arose subsequent to the contract being issued. And it wasn't because of lack of completeness; it was only because of things we hadn't thought of in the original contract. For example, some of our clinical departments needed particular issues tweaked like the anaesthetists wanted it in a different form for anaesthesia requests. The labs wanted other things. And our lab services had since expanded and so had to think anew about how the two systems would communicate. (B-7) I would say that we were, you know, everyone was happy with it. And sometimes it was our fault. Sometimes we didn't understand quite how it works. Sometimes there was a glitch in the software. (B-8) To be honest, I think people don't really look back at the contract. You know, 'you guaranteed you would do this, we said we do that'. We probably should.	(B-6) We are all interested in progressing the system's ability and to meet as many people's requirements. That's the only meetings that are taking place. And that would be normal. We are talking about 40, 50, or 60 users maybe. Invariably they will have their own little requirements or wanting to know how to do things. It's quite a complex little system, you know, an elaborate system. So any meetings that are taking place are to do with that element of it. (B-15) Thankfully what we have provided meets their needs pretty well, but certainly from time to time they might say we would like be able to do x, y, and z. They would ask how feasible that would be. We would let them know that there would be a cost involved in doing that, and it would go on from there, you know.	

	III 1.2 – Written Contract Incompleteness Case B (continued)			
Code Description		Principal – Case B (PB)	Agent – Case B (AB)	
WCI	Written contract Incompleteness	(B-10) So therefore we had another company talking to the VetServ Company. And, you know, that proved interesting in that the communication didn't happen as smoothly as we would have liked. (B-13) And also when we developed a new laboratory test which we have quite recently, then there needs to be an action to ensure that the link between the lab system and the VetServ happens. (B-13) Also, we had an incident just last week, when first one and then the backup server running the GI system went down. We discovered that this was because the temperature in the room where the servers were went too high, and got fried basically. So this made us a little bit worried for the VetServ servers, and was another incident where we	(B-15) Thankfully, thus far, there hasn't been a whole lot that needed to be done other than changes within the contract. Which is good from the client's point of view.	
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	III 2.1 – Psychological Contract Case A			
Code Description		Principal – Case A (PA)	Agent – Case A (AA)	
PC	Psychological Contract	(A-6) Sometimes if there were areas which may need levels of service or specific events happening might need extra services. Our contract supervisor would liaise with the manager of the cleaning company to arrange those special services. (A-7) In a previous and another relationship there have been	(A-3) We have a very good working relationship with P's deputy, a lady called MP, who my own contracts manager a lady called MA, would meet on a weekly basisWe have the same staff working in every building. So there is continuity of service regarding the staff. (A-10)if it was run like some other government contracts that	
		times when lack of clarity caused a lot of problems. Because it becomes a "you didn't tell me".	possibly should have the same flexibility in the manpower, it wouldn't happen.	
		(A-7) You build the relationship, because if you are solely relying on what's printed, the one thing you miss will be the one thing you need. And it won't be written down. (A-8) Or any areas where it might not be the contractor's	(A-12) It's most important as far as I'm concerned. There has to be a good understanding between the contractor's direct manager and the client's point of contact. Because that's where any issues that have come up are resolved there and then (A-12) if a client is getting a	
		fault that there is the problem, they work together to resolve the issue. Maybe periodic cleaning needs to be carried out. They would work together to sort timeframes of what can be done and when it can be done.	number of complaints and they're not being addressed by the client services manager, the client would very soon say "this is not working and you could lose the business or we'll put it to tender". So, the most important thing as far as I'm concerned is the relationship	

	III 2.1 – Psychological Contract Case A (continued)			
Code Description		Principal – Case A (PA)	Agent – Case A (AA)	
PC	Psychological Contract	(A-12) I think it's absolutely essential to have a relationship between the client manager and the contract manager. If you don't have that, you have a very difficult relationship and the service will fall down. (A-20) I think that sometimes if myself or the actual Managing Director of the contract start getting involved that we can upset the applecart in some ways because things have been running smoothly and you could go in and not know what we are talking about on a daily level. Some things are better left sorted out at a supervisory level. (A-21) If you are dreading this monthly meeting, it's always going to be negative, negative, negative, and only picking out faults. I don't think that serves to build any relationship and you won't build for good service. But if you are too social as well, and you are going out socialising with people, that's not good business practice either. Because then you won't be able to deal with things when they become difficult.	(A-13) Never socially But normally there's not a huge amount of interaction between myself and P in this case. It would be more so if there was a requirement or a problem, P would come straight on to me I also feel that you don't want to be pestering the client all the time. (A-12)one of the most important things in the relationship, between the contractor's representative as in his supervisor or manager, and the customer's point of contact. (A-22) And again, the people who work for me on all the sites, very very quickly, they forget they work for CleanServ or any other cleaning company and they feel that they work for the building that there are in.	

	III 2.1 – Psychological Contract Case A (continued)			
Code Description		Principal – Case A (PA)	Agent – Case A (AA)	
PC	Psychological Contract	(A-22) I know in one of our other contracts which would be a very big organisation, you don't get as good service because they don't really value the contract. (A-24) But I would say that the relationship between our two supervisors has been very good, where in fact they've actually shown us some initiatives that we have been able to use inside, and actually trained our supervisors in a thing called bonnet mopping for carpets. (A-25) I think it's probably in this relationship, because in addition to employing people to provide the service, we are also providing the exact same service ourselves. In a way we are not only competitors, we are providing the same service, so we understand the operation, and we can learn from each other.	(A-22) If any customer ever needs me to come along, or the supervisor, or the client services manager, requires me to go along and look at the way something is being cleaned, or there is an issue regarding a stain, or something like that, any of the managers will ring me and I am available at any time to come in and see them.	

	III 2.1 – Psychological Contract Case A (continued)			
Code	Description	Principal – Case A (PA)	Agent – Case A (AA)	
PC	Psychological Contract	(A-28) I went over to the girl, I said "look, I'm not here to beat anyone up, but I just want to know where did this happen, what did you do then". And I'm not saying that this was a problem on the part of the contactor, because I realised we hadn't given the girl enough information. But I wanted to find out what information she had on the ground.		

	III 2.2 – Psychological Contract Case B			
Code	Description	Principal – Case B (PB)	Agent – Case B (AB)	
PC	Psychological Contract	(B-3) About two years. The original software was supplied by the same company, but as I said, in its original version it had been there for about ten years or so. (B-7) I think there is a little bit	(B-6) I would like to think we have moved beyond the contract. We have a very, very good working relationship with the College and all its staff, so I am very pleased with that, you know. (B-8) I think, well I shouldn't be	
		in the contract about communications, but a lot of it is informal. (B-8) To be honest, I think people don't really look back at the contract. You know, 'you guaranteed you would do this, we said we do that'. We probably should. To be honest it happens much more informally now where somebody will email or ring up and say 'AB we have a problem and can you come and fix it?' And it seems to work that way. (B-11) And anytime he is in, I think he a very good friendly relationship with many staff on the ground, and he would go out of his way, from time to time, to help an individual with problems with our system.	saying what other people think, but I would I would speculate that they are thinking let's see what we can do to develop the system rather than the contract itself. I don't think anyone would want to go back and quote the contract. I would feel very worried if anyone started quoting the contract at any stage, you know. (B-9) But on top of that, you know, they have a programme which is about business for veterinary practice, and we have contributed to that, showing how VetServ could be used to manage the business, and what KPIs and so on they should be looking for through something like VetServ.	

	III 2.2 – Psychological Contract Case B (continued)			
Code Description		Principal – Case B (PB)	Agent – Case B (AA)	
PC	Psychological Contract	(B-11) So we do enjoy a very good cordial relationship. And I think that has been really instrumental in ensuring the success of the contract. In fact, it was one of the factors in the awarding of the contract to this particular service provider in the first instance. (B-11) When it went out to tender we had another very competitive quote, but it was from a UK organisation which serves another veterinary hospital across the water. It went down to the wire and, in fact, you know, we were really on the point of awarding it to the other organisation. And I think what happened was that we were concerned about the level of support, and the fact that AB and VetServ were local was a factor, and that we knew that the support could be provided quickly. So all had no doubts that, whether it's directly or indirectly, the fact that the personal relationship existed did influence the award of that contract.	(B-10) If there's a difficulty either side, having a point of contact like that is really useful. You know, I'd like to think that's an excellent relationship, its again a two-way street. We can answer questions they may have, and similarly they can answer questions we may have. It would be essential in a contract this size, that it would have a point of contact that would be at a senior level. (B-10) We would do yes, have social conversation, yes. We find that there are other things outside of the relationship to do with the contract that are useful or beneficial to both parties. (B-11) We are involved in the UniVet conference and so on. There are many different things that we would find useful for each other. Only recently we were recommending someone for them to use in an accounting role that would have familiarity with our software.	

	III 2.2 – Psychological Contract Case B (continued)			
Code Description		Principal – Case B (PB)	Agent – Case B (AB)	
PC	Psychological Contract	(B-13) Absolutely I do because if you lose that personal contact, that closeness, the relationship, then I think I things just get put up with and we don't communicate our needs clearly to VetServ. And I think in fact that's what happened during the first phase of this contract when we had a VetServ system from 2002. (B-14) So it's only when we went and investigated and built up that relationship again, and spent a little bit of money in ensuring that our contract was such that we would be able to upgrade every year and would upgrade annually that that developed. So I think the personal relationship was important and it was something we neglected during those ten years. (B-16) I think that level, that lack of immediate technical competence of technical things hasn't affected the relationship. In fact, we have a lot better level of service now than when we did have someone who was knowledgeable about technical things managing the contract.	(B-15) Well I suppose the working relationship we have with staff in there proved to be beneficial. Apart from the fact that they are flagship, we would learn things from the fact that it's a veterinary hospital using the system while in practice the needs are somewhat different. (B-16) Obviously you would want to keep someone happy if you know that they might influence a future contract. But as it happens, that situation, the person we are dealing, I am sure has significant influence on the contract. (B-16) But their other general expertise is extremely good. Yes, certainly somebody with good management expertise is important. Because it means it's likely that things get done. (B-17) Absolutely, yes. I think I would find it for our organisation, we are a small organisation, that dealing with somebody you can talk to easily is very useful. And we would like to feel that we have quite an easy manner ourselves and it reflects in all our conversations with all our clients.	

	III 2.2 – Psychological Contract Case B (continued)			
Code Description		Principal – Case B (PB)	Agent – Case B (AB)	
PC	Psychological Contract	(B-16) I think it's not just a single manager's social skills, I think there's lots of people who interact with the contract provider, either directly or indirectly, and I think the social skills of all of that group who report to the client manager are important in maintaining that relationship. (B-20) We make a point of inviting AB to come along to any relevant events, like CPE events or the Hospital Conference events. Normally the service provider would pay for that level of access. So they paid for a stand at the Hospital Conference. They might just sponsor continuing education events, and they have been generally very happy to do so. (B-21) So I think that would be an opportunity for the service provider to be invited to come in and talk to the students, and they are happy to do so. (B-22) Similarly there might be an opportunity in continuing education where the software provider could be asked to contribute.	(B-18) I don't think that we have that type of relationship. I think that if there was something going wrong it would just be said. I don't think the tone would be necessary. (B-18) I think that we are probably not at that stage yet. But I would be hopeful that we would be given that kind of information in the future. I suppose in little things you would get a bit of that alright. (B-18) Because we have this ongoing relationship we are willing, well I like to think we are quite helpful to them in making some small changes here and there that we don't charge for, you know. (B-20) But we have discussions about other things that influence both our organisations. So I might ring up and ask, you know, what's the best organisation to phone in relation to this? Or, do you have any contacts in this organisation? You know, again it's a two way-street.	

Code Description	B (AB)
necessarily be conferences the aspect to things met the team o	ences, it wouldn't social things, but at

APPENDIX IV - PSYCHOLOGICAL CONTRACT MANAGEMENT MECHANISMS INTERVIEW TRANSCRIPT EXCERPTS

	IV 1.1 - Performance Communication Signals - Case A		
Code	Description	Principal – Case A (PA)	Agent – Case A (AA)
CP	Communicating Performance - principal operating in a context appropriate to promise making such as communicating required performance standards	if it's a small issue, it might be dealt with a phone call. We try to deal with any actual complaint or anything that we think may be a problem via email at least so that there is some record If you deal much in telephone conversations, you don't have a formal record of it So, I would formally take the report from Security and send it to CleanServ so that it's actually documented. (A-15) You just really need to indicate that there are issues that have to be sorted out, how to do them, and what's going to happen.	(A-7) If something is highlighted it's addressed there and then, and it will be finished before the next meeting. (A-13) It would be more so if there was a requirement or a problem, P would come straight on to me. I think there was an issue a number of years ago with keys being lost, or something like that, in one of the buildings, and P would come straight on to me with that. (A-16) I suppose with something like that would be where you might be saying where there might be a fall-off in the level of service. I suppose the way things are now it's very easy for a member of UniCampus staff, obviously if they had a difficulty where their office wasn't being cleaned, they might send an electronic email to P, who would, in turn then, forward it on to our own office here.

	IV 1.1 - Performance Communication Signals - Case A (continued)			
Code	Description	Principal – Case A (PA)	Agent – Case A (AA)	
CP	Communicating Performance - principal operating in a context appropriate to promise making such as communicating required performance standards	(A-21) But if you are too business-orientated and you don't build any relationship I think it can be detrimental to your actual relationship working with somebodyBut if you are too social as well, and you are going out socialising with people, that's not good business practice either. (A-23) Yes I would, yes. If it's a small problem again, and it's dealt with on the ground but it's getting that we've exchanged emails, and the problems we have a record of that, I would believe in bringing them in for a formal meeting. Perhaps, probably on our territory rather than meeting in the building, and sitting down formally across the desk with the documents in front of me and deal with it in that manner. (A-26) Any comment that would come back, positive comments, we would pass it on to them so that they could be passed back on to the staff.	(A-23) If P wasn't happy with services being delivered, or services being delivered were related back to P, and P came on the phone, she wouldn't put any gloss on it. She would tell you straight 'this is not acceptable' or 'that is not acceptable'. It would be very direct. There wouldn't be any need to try and read between the lines or wondering how something was being phrased. (A-23) Certainly in P's case, if she has an issue she'll tell you. And you'd already have to have it addressed.	

	IV 1.1 - Performance Communication Signals - Case A (continued)			
Code	Description	Principal – Case A (PA)	Agent – Case A (AA)	
СР	Communicating Performance - principal operating in a context appropriate to promise making such as communicating required performance standards	(A-27) But, definitely on the penalty side, if there is a problem that can't be dealt with at a supervisory level, then we would set up a formal meeting.	(A-26) if there is a positive comment to be made, MP will put it onto the additional comments section which is lovely for my own managers because they know I'm going to see that. Actually signed and written by MP It's sent to ourselves first then always passed on. It's a lovely gesture. It doesn't take a whole lot, but very seldom does the cleaning staff get thanked for the job. It's usually when there is something wrong when they are contacting you. But it's nice to get something positive. (A-27) Certainly if I was meeting P to look at something new, or there was an additional requirement somewhere, there would always be a conversation about how things are going in the other buildings. So it's more of an informal thing than a formal thing.	

	IV 1.2 – Contract Performance Communication Signals - Case B			
Co	de Description	Principal – Case B (PB)	Agent – Case B (AA)	
CP	Communicating Performance - principal operating in a context appropriate to promise making such as communicating required performance standards	(B-7) Sometimes there was a glitch in the software. For example, we found that an element of duplicating case records and we wanted the case records shown accurately and we have since asked AB to fix that. (B-8) To be honest it happens much more informally now where somebody will email or ring up and say 'AB we have a problem and can you come and fix it?' And it seems to work that way. (B-12) This would be on an as needs basis. So if we had or discovered a glitch, and I gave you the example about, you know, some of the cases weren't being counted correctly, we would certainly set that up. (B-13) So this made us a little bit worried for the VetServ servers, and was another incident where we need communicate to AB in VetServ our concerns over this issue.	(B-4) I'll answer that by saying that on-going meetings are more to do with the system than the contract. (B-6) The meetings are informal. The meetings weren't part of the contract as such. (B-8) Yes, but again I suppose I would be surprised if the end user themselves or people higher up are even thinking on a contract basis. I think, well I shouldn't be saying what other people think, but I would I would speculate that they are thinking let's see what we can do to develop the system rather than the contract itself. I don't think anyone would want to go back and quote the contract. I would feel very worried if anyone started quoting the contract at any stage, you know. (B-15) I would find them very useful because, at the end of the day, if the client is there wanting something else, and we can't discuss it or considering delivering it then the client isn't going to be too happy.	

	IV 1.2 – Performance Communication Signals - Case B (continued)			
Со	de Description	Principal – Case B (PB)	Agent – Case B (AB)	
СР	Communicating Performance - principal operating in a context appropriate to promise making such as communicating required performance standards	(B-13) Absolutely I do because if you lose that personal contact, that closeness, the relationship, then I think things just get put up with and we don't communicate our needs clearly to VetServ. (B-16) And, in fact, we have a lot better level of service now than when we did have someone who was knowledgeable about technical things managing the contract. (B-18) And I know that we did have some formal written communication around the time of the deadline for going live on the system if you like, and we were worried about some levels of progress. And I think a balance between the very friendly and the more formal written communication is an influence, yes.	(B-16) But their other general expertise is extremely good. Yes, certainly somebody with good management expertise is important because it means it's likely that things get done. (B-18) I think that if there was something going wrong it would just be said. I don't think the tone would be necessary.	

	IV 2.1 – Message Reinforcement Signals - Case A			
Co	ode Description	Principal – Case A (PA)	Agent – Case A (AA)	
MR	Principal behaving in ways consistent with the commitment made, such as reinforcing the message through the compensation system	(A-8) Yes, our supervisor would conduct a joint audit on a monthly basis. And she would report back the results of that audit to me. (A-30) Starting with the contract areas, we hope to put into place so that we're not just auditing the cleaning services, so that we're auditing the whole operation and the value of the contract. So that no invoices will be paid until the product is correct.	(A-8) Again, we would do our own reports that are electronic audits that we would do, setting the sort of standard that we do for all buildings. We don't have one particular kind. We have a customised one for each particular building. So when we would do an audit on a building, it's done on a handheld device which is signed by the customer, or the customer's representative, and is emailed to the customer and to our own office here. (A-19) The invoice goes to the Housekeeping; I presume P may sign it off. (A-28) She had a job to do. If the building isn't up to standard, she's going to say it because she's not signing off on her fortnightly audit if it's going P and myself and it wasn't right.	

	IV 2.1 – Message Reinforcement Signals - Case A (continued)		
Co	ode Description	Principal – Case A (PA)	Agent – Case A (AA)
MR	Principal behaving in ways consistent with the commitment made, such as reinforcing the message through the compensation system		(A-31) And I feel that that's what happens because that's the type of person I think MP is, and obviously by getting it signed and getting the comment onto the audit forms, both MP and the person, in this case P, get to see us and the service we're providing.

	IV 2.2 – Message Reinforcement Signals - Case B		
Code	Description	Principal – Case B (PB)	Agent – Case B (AA)
MR	Principal behaving in ways consistent with the commitment made, such as reinforcing the message through the compensation system	(B-15) I think the fact they know the budget is under the control of the Vet School rather than a contracts manager from some other part of the university means that they know and we know that we are looking at their service, I think, calibrates their service based on success of the service we got. And also I think that they know that they were nearly not awarded this contract. So I think there's that level of awareness.	(B-21) Yes, well I suppose as well we have implemented an IT system for tracking technical issues and so on. We would discuss those on a regular basis, you know. That's a little information system of its own that's separate from the system and which is available to them. We can view it as well. We can jointly review it.

	IV 3.1 – Authority Signals - Case A			
C	ode Description	Principal – Case A (PA)	Agent – Case A (AA)	
A	Authority - agent's perceptions of the principal as having power, authority, or capacity to make the commitment	(A-2) The set-up of the contract is normally done by myself and the owner of the company. (A-13) I wouldn't see many of the contractors that often. (A-18) If things aren't being looked after and it seems they're not listening sometimes to the supervisor, then if myself or one of the other managers would step in. And it must be frustrating, I think, for the supervisor because we'd step in and everything's right the next day. So you put up with that. That's the hierarchy isn't it, that's where the power is. It's the balance of power, isn't it? (A-20) I think that sometimes if myself or the actual Managing Director of the contract start getting involved that we can upset the applecart in some ways because things have been running smoothly and you could go in and not know what we are talking about on a daily level. Some things are better left sorted out at a supervisory level.	(A-12) the client would very soon say "this is not working and you could lose the business or we'll put it to tender". (A-13) Never socially But normally there's not a huge amount of interaction between myself and P in this case. It would be more so if there was a requirement or a problem, P would come straight on to me I would meet P, agree the service that was required, and I would implement that with my managers. I also feel that you don't want to be pestering the client all the time. (A-18) Once MP has faith in the service that we are delivering on, and that my manager can support her with, I think that's the most important issue. Because there is no escalation to P. I think that's the most important thing. (A-19) But it's very important that my manager liaises well with the UniCampus person, in this case MP, and for MP to be happy with the service. That's very important, because after that it goes to the next stage and then there's a problem.	

	IV 3.1 – Authority Signals - Case A (continued)		
Co	ode Description	Principal – Case A (PA)	Agent – Case A (AA)
A	Authority - agent's perceptions of the principal as having power, authority, or capacity to make the commitment	(A-22) From the service provider's point of view, in this case I think they would know that the supervisor would be reporting back to me on a regular basis (A-23) If it's a small problem again, and it's dealt with on the ground but it's getting that we've exchanged emails, and the problems we have a record of that, I would believe in bringing them in for a formal meeting. Perhaps, probably on our territory rather than meeting in the building, and sitting down formally across the desk with the documents in front of me and deal with it in that manner.	

	IV 3.1 – Authority Signals - Case A (continued)		
Co	ode Description	Principal – Case A (PA)	Agent – Case A (AA)
A	Authority - agent's perceptions of the principal as having power, authority, or capacity to make the commitment	(A-24) The only time I would meet the managing director of the business or people on the same kind of management structures as myself, would be if I was asking him to quote for a new building that was coming on stream, or to tell them that we are going into the tender process, or that we are now going to set up formal quarterly meetings, which we haven't done before, with the senior management of the contract company. (A-28) So I went over and met with all the contract staff, and you could see they may have thought they were about to get the sack.	

	IV 3.1 – Authority Signals - Case A (continued)			
C	ode Description	Principal – Case A (PA)	Agent – Case A (AA)	
A	Authority - agent's perceptions of the principal as having power, authority, or capacity to make the commitment	(A-28) It highlighted a problem, and by actually going over and saying "which button did would press, where were you" So, it highlighted an issue where we'd fallen down, the contract had fallen down, and the staff had highlighted their position, but actually which was dealt with on the ground by me, rather than the managers getting involved. It was maybe, quite informal. I went over to the girl, I said "look, I'm not here to beat anyone up, but I just want to know where did this happen, what did you do then".		

	IV 3.2 – Authority Signals - Case B			
Co	de Description	Principal – Case B (PB)	Agent – Case B (AB)	
A	Authority - agent's perceptions of the principal as having power, authority, or capacity to make the commitment	(B-16) But certainly there is a level of awareness of things that we know what we want and that we are going to be quite active in ensuring that we get it. (B-17) Certainly I do have access to the Bursar, the President and the Registrar, and I think it would have to be serious for that level of discussion to occur. (B-17) But it would have to be a really serious issue for them to attend. I think the knowledge that that influence and access is present certainly has been an influence. (B-17) And I think our ability to issue the tender and get that contract passed, where there had been no investment in this region, where the service provider had been told there was no money for upgrades for the last ten years, was seen as very influential and a demonstration by the university to the service provider.	(B-10) It would be essential in a contract this size, that it would have a point of contact that would be at a senior level. (B-10) In fact I would go so far as to say that the person we are dealing with and others I suppose, has enough of, I hate using the word power, but power and respect within the organisation that they can get things done. (B-16) Obviously you would want to keep someone happy if you know that they might influence a future contract. But as it happens, that situation, the person we are dealing, I am sure has significant influence on the contract. (B-20) Probably in the early daysoh gosh more senior than them? I don't know the levels of seniority in there that well.	

	IV 3.2 – Authority Signals - Case B (continued)			
C	ode Description	Principal – Case B (PB)	Agent – Case B (AB)	
A	Authority - agent's perceptions of the principal as having power, authority, or capacity to make the commitment	(B-21) No. I haven't been directly in contact with anybody really from the service provider's team except one member.		

	IV 4.1 – Agent's Individual Dispositions - Case A			
Co	de Description	Principal – Case A (PA)	Agent – Case B (AA)	
ID	Individual Disposition – Agent's cognitive bias and focus on information relevant to interests or prospects	(A-22) But I suppose it depends on the size of the organisation. If we're talking about a relatively small organisation, I know in one of our other contracts which would be a very big organisation, you don't get as good service because they don't really value the contract. So, and no matter how much they know that this person is my supervisor and would be having problems, I don't think that they weight it because I don't think they feel value towards the contract.	(A-6) And the great thing about any work from any government contract is you never have to worry about getting paid. They pay on time. (A-8) But once the contract is awarded, there doesn't seem to be much follow-through from the awarding authority. Where are the quality meetings? Or where are the reports? (A-9) The drawback is that it's exceptionally price competitive at the detriment of the service element. (A-10) The other benefit is the actual reference. It's great to have government work and you can use some contracts as a reference (A-10) Certainly on government contracts it's very nice to know that you're undertaking a job that you know you are going to get paid for at the end of every month. Whereas with private sector work you don't have that guarantee. The drawback is that it's exceptionally price competitive at the detriment of the service element.	

IV 4.1 – Agent's Individual Dispositions - Case A (continued)		
Code Description	Principal – Case A (PA)	Agent – Case B (AB)
ID Individual Disposition – Agent's cognitive bias and focus on information relevant to interests or prospects		(A-11) So, again it's very hard to know if people are actually measuring like for like. And I think that there are major drawbacks in public procurement. (A-16) There are no additional hours carried out, or subject to some charge. What we have are our standards for a cleaning service. (A-18) So, I feel that because o being able to manage the previous job, that they had requested, when something mor came on, they wanted us. (A-20) With our contract managers, we try to give them all the information that we can. Whether that be methods of cleaning carpets in UniCampus, so that they can provide that service, that knowledge, to do the job without having to bring in the industrial crew to do extra jobs. We also train all our managers in communicating with our front line people, our cleaning staff.

	IV 4.1 – Agent's Individual Dispositions - Case A (continued)		
Co	de Description	Principal – Case A (PA)	Agent – Case A (AA)
ID	Individual Disposition – Agent's cognitive bias and focus on information relevant to interests or prospects		(A-22) If any customer ever needs me to come along, or the supervisor, or the client services manager, requires me to go along and look at the way something is being cleaned, or there is an issue regarding a stain, or something like that, any of the managers will ring me and I am available at any time to come in and see them. So I can only say it from my point of view, but I am sure it's the same in other organisations as well. (A-27) We are always very conscious that we don't want to have any confrontation because we have a number of public contract buildings. (A-31) So the important thing is for the point of contact in the client to be completely happy that the service we're giving is the best that it possibly can be because they're going to relay that to the people in the organization that are making the decision.

IV 4.1 – Agent's Individual Dispositions - Case A (continued)		
Code Description	Principal – Case A (PA) Agent – Case A	A (AA)
ID Individual Disposition – Agent's cognitive bias and focus on information relevant to interests or prospects	(A-32) The superinte OtherOrg, who would principal awarding the would only see hon a once every two basis, on a PR basis.	d be our ne contracts, im probably months

	IV 4.2 – Agent's Individual Dispositions - Case B		
Code Do	escription	Principal – Case B (PB)	Agent – Case B (AB)
Diss Age on i rele inte	lividual position — ent's focus information evant to crests or spects		(B-4) Obviously we were in competition with other provider as well. But I suppose our ongoing relationship helped somewhat and the fact we knew exactly what it was we were looking for. (B-4) Because they were throwing everything into the pot and seeing whether they were going to make a radical change here, or should they stick with VetServ. So I suppose, from their point of view, it made sense to look elsewhere at the same time, you know. But we obviously had the knowledge, the workings of the operation there, which an operation of that size, tends to be somewhat unique. (B-4) You know, the UniVet college is the qualifying college for all veterinary surgeons throughout Ireland and most of our customers have gone through there, and it is a flagship site for our business. (B-6) I would like to think we have moved beyond the contract

	IV 4.2 – Agent's Individual Dispositions - Case B (continued)			
Со	Code Description Principal – C		Agent – Case B (AB)	
ID	Individual Disposition – Agent's focus on information relevant to interests or prospects		(B-6) We are all interested in progressing the system's ability and to meet as many people's requirements. We are talking about 40, 50, or 60 users maybe. Invariably they will have their own little requirements or wanting to know how to do things. It's quite a complex little system, you know, an elaborate system. (B-10) We find that there are other things outside of the relationship to do with the contract that are useful or beneficial to both parties. (B-16) And we would like to feel that we have quite an easy manner ourselves and it reflects in all our conversations with all our clients. (B-18) A lot of that would go on whereas we are probably not at a stage of negotiating for the future. I would be hopeful, that, come that time, we would be given a few hints here and there.	

	IV 4.2 – Agent's Individual Dispositions - Case B (continued)			
Co	de Description	Principal – Case B (PB)	Agent – Case B (AB)	
ID	Individual Disposition – Agent's focus on information relevant to interests or prospects		(B-19) Obviously it's in their benefit rather than changing everything that they could continue with the relationship in operation assuming that they are quite happy with it. (B-20) But we have discussions about other things that influence both our organisations. So I might ring up and ask, you know, what's the best organisation to phone in relation to this? Or, do you have any contacts in this organisation? You know, again it's a two way-street.	

	IV 5.1 – Agent's Obligations - Case A			
Co	de Description	Principal – Case A (PA)	Agent – Case A (AA)	
BJ	Agent's decision on the required actions to fulfil his perceived obligations under the contract, for example decisions to perform additional unpaid works	(A-24) But I would say that the relationship between our two supervisors has been very good, where in fact they've actually shown us some initiatives that we have been able to use inside, and actually trained our supervisors in a thing called bonnet mopping for carpets.	(A-6) But obviously in the intervening years carpets would need to be cleaned, there has been new processes put into X Street at no additional cost. Then things would be a little bit quiet during the breaks and we would do extra things like carpet cleaning and floor machine scrubbing that wouldn't necessarily be perceived as being part of a contract, but it's that extra bit and the bit that gets noticed. And I think we've probably shown MP a few ways of cleaning carpets and using different pads. But again, making ourselves indispensable is the entire way we try to do it. (A-7) I don't think it would generate an additional job that would involve an additional charge. If there's enough resources there at certain times of the year that we can actually do the job.	

	IV 5.1 – Agent's Obligations - Case A (continued)			
Code Description		Principal – Case A (PA)	Agent – Case A (AA)	
	Agent's decision on the required actions to fulfil his perceived obligations under the contract, for example decisions to perform additional unpaid works		(A-7) If it's we have a routine, where we might say clean computers or shampoo the carpets, which some people would see as an extra or additional chargeable job, we would have seen that as, certainly in the case of UniCampus, as just a part of the job. (A-12) Because that's where any issues that have come up are resolved there and then, or if a client is getting a number of complaints and they're not being addressed by the client services manager, the client would very soon say this is not working and you could lose the business or we'll put it to tender. (A-16) So I suppose that would be the way that additional communication would happen if there was an additional requirement. There are no additional hours carried out, or subject to some charge.	

IV 5.1 – Agent's Obligations - Case A (continued)					
Code Description		Principal – Case A (PA)	Agent – Case A (AA)		
BJ	Agent's decision on the required actions to fulfil his perceived obligations under the contract, for example decisions to perform additional unpaid works		(A-19) So, the manager has a certain number of hours per week, per building. And if there is an additional requirement for anything extra, we have to try and do that within those hours. (A-19) My point is we don't raise additional invoices for additional requirements. We have to manage within the hours we have. (A-20) It's equipping our managers with the knowledge of how to clean the carpets with the new methods, or how to do the job on the floor with the new pads that we have done in UniCampus using diamond pads that restore floors, stone floors. Because we have shown our managers how to do it, when they in turn demonstrate it to UniCampus representatives, they in turn roll it out to their own direct employees on the campus.		

IV 5.2 – Agent's Obligations - Case B						
Code Description		Principal – Case B (PB)	Agent – Case B (AB)			
ВЈ	Behaviour Judgement – Agent's decision on the required actions to fulfil commitments	(B-10) And anytime he is in, I think he a very good friendly relationship with many staff on the ground, and he would go out of his way, from time to time, to help an individual with problems with our system. (B-19) They might just sponsor continuing education events, and they have been generally very happy to do so. (B-21) So I think that would be an opportunity for the service provider to be invited to come in and talk to the students, and they are happy to do so. (B-22) Similarly there might be an opportunity in continuing education where the software provider could be asked to contribute.	(B-9) But on top of that, you know, they have a programme which is about business for veterinary practice, and we have contributed to that, showing how VetServ could be used to manage the business, and what KPIs and so on they should be looking for through something like VetServ. (B-11) Only recently we were recommending someone for them to use in an accounting role that would have familiarity with our software. (B-18) Because we have this ongoing relationship we are willing, well I like to think we are quite helpful to them in making some small changes here and there that we don't charge for, you know.			