Ex-post service contract performance management

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Abstract

This paper highlights how contract incompleteness can threaten the performance of public procurement facilities management contracts during their implementation stages, based on a multiple case study comprising five public procurement services contracts. The paper takes a principle-agent view and with the unit of analysis being the contract itself. The paper shows that contract contingencies are almost inevitable and may stem from the written contract or from the participating organisations. Written and unwritten contract management mechanisms were used in practice to deal with contingencies as they arose in the services case studies examined. The paper found that written contracts do not always provide satisfactory remedies for unexpected contingencies. *Ex post* mechanisms were used to manage the contract including incentives, information systems and signals. Time, resource or position signals were used in all five cases and provided an effective mechanism to manage unexpected contingencies in written contracts that proved to be incomplete.

Keywords - services, facilities management, public procurement, principal, agent, contract, unwritten, signal.

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1. Introduction

Client organisations use contracts to specify the work to be carried out for them by contractor organisations. The performance of such contracts is of critical importance for both principals and agents (Holmstrom and Milgrom, 1991). The ex-ante preparation of written contracts is important to successful outcomes. So too however is the successful ex-post management of contracts. This paper looks at the use of signals (Spence, 1973) in managing the performance of contracts after the contract has been implemented. Signals can be used to deal with contingencies that arise unexpectedly and where remedies do not exist in the ex-ante written contracts.

One means by which the procurement function supports the performance of the core business is through the supply of facility services (Haugen and Klungseth, 2017; Pitt *et al*, 2014). Contracts with service providers therefore are an important means for facilities managers to create value for their organisations. However, the value of incorporating service providers' products, services, information, and personnel into client processes and operations is threatened when contract contingencies arise (Coenen *et al*, 2013). Contingencies, stemming from inadequate definitions of scope or an absence of quality benchmarks, or from inadequate planning of policy implementations or lack of strategic flexibility, can trigger facilities management (FM) contract cancellations or renegotiations (Ikediashi *et al*, 2012). The importance of contract performance to managers in the delivery of facilities management services to their organisations and the variety of threats to the successful implementation of such contracts prompted this study.

Facilities managers using contracts with service providers rely on contract completeness and good relationships to address contingencies. Completeness depends on the careful design of the contract *ex-ante,* i.e. prior to its implementation stage. Good relationships between the parties after the contract are maintained through *ex post* measures such as managing disputes between parties and overcoming contingencies. Regardless of *ex-ante* mechanisms, such as detailed procurement and tender documents, difficulties may still arise in the implementation stage. To deal with such difficulties, facilities managers must draw on *ex post* mechanisms to secure FM service delivery.

This paper specifically examines mechanisms to manage public procurement FM contracts at the *ex post* stage. The paper reviews theories of contract and examines five cases of public FM services contracts at post-tender stage. Since public contracts require frequent public competitive tenders (Erridge and McIlroy, 2002) and view contract relationships as performance monitoring (Murray, 2009), these cases offer an opportunity to study *ex-ante* management mechanisms used by managers in the contexts of relatively inflexible written contract terms and short-term contract relationships. These contexts suggest challenges to a manager's reliance on assumed contract completeness and good relationships to address contract contingencies, and provide an empirical basis on which to develop a credible conceptual model of *ex post* mechanisms for FM practitioners to better understand and manage contracts. The paper is organized as follows: first, it reviews the relevant theory in relation to contracts and contract management, then it presents findings from the empirical study of five cases, it then develops and puts forward a conceptual model, and finally draws conclusions.

2. Theoretical background

This section briefly reviews the literature on written and unwritten contracts. The section also briefly reviews signals theory and the use of signals as a mechanism for managing unwritten contracts.

2.1 Contracts

Contracts are described as the efforts by parties in a voluntary exchange to align incentives and form governance structures to mitigate hazards and realise mutual advantage (Williamson, 2002). While governance mechanisms should be farsighted (Williamson, 1999), in fact real-world contracts are incomplete (Badenfelt, 2011; Nakhla, 2016; Oluka and Basheka, 2014) and may lack clarity or remedies (Walls, 2005). Therefore, despite *ex-ante* controls such as legal constraints (Potoski, 1999) *ex post* trade is only partially contractible (Hart and Moore, 2008). However well written, contracts will not sufficiently provide for some contingencies and remedies will not always be enforceable. As a result, implementation of contracts can be challenging (Hashim *et al*., 2016). In public sector contracts high levels of transaction costs have been found at post contractual stage due to a lack of procurement contract management capacity among principals (Rasheli, 2016). Contract theory alone does not provide the FM practitioner with sufficient mechanisms to manage situations of unforeseen contingencies. The working relationship between the client and contractor (principal and agent) has been found to be a key enabler of good contract performance outcome (Lam, 2017; Lok and Baldry, 2014). It is proposed that consideration of agency theory and inclusion of the use of signals by the principal enables a better model of contract management to be developed.

The theory underpinning contracts is held to be agency theory (Eisenhardt, 1985; Eisenhardt, 1989; Logan, 2000; Sappington and Stiglitz, 1987). Agency theory examines situations where an agent acts in a decision-making role on behalf of a principal (Ross, 1973). Agency theory proposes two mechanisms to manage *ex post* performance: a set of incentives inducing the agent to accept risks and secure outcomes, and an information system to measure performance (Eisenhardt, 1985; Sappington and Stiglitz, 1987). In an FM contract, the client may incentivise inputs by paying on a 'time and materials' basis, or outputs by paying a fixed price (Bajari and Tadelis, 2001). Both approaches require an appropriate information system such as monitoring, reporting, or auditing to secure outcomes (Hansson, 2010). These *ex post* written contract management mechanisms are summarised in table 1.

Table 1 approximately here

2.2 Signals as a mechanism for managing unwritten contracts

Shannon (1948) identifies the fundamental problem of communication as reproducing at one point a message that was selected at another point. He proposed 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. Authors have reduced Shannon's model to the three essential terms of communication theory: the sender, the receiver and the information or communication that relates them (Stichweh, 2000, p. 10; Warner, 2007, p. 318) (see figure 1). This 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) or spoken and unspoken communications of intentions (Rousseau, 1995) 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. In principal-agent communications the principal can be regarded as the sender and the agent as the receiver.

Figure 1 approximately here

Written contracts are unavoidably incomplete (Walls, 2005; Williamson, 1999) but given that historical supply agreements have successfully existed over long periods, such arrangements must be partly governed by some informal mechanisms outside the written contract (Coase, 2006). These may be regarded as unwritten contract management mechanisms. For example, close monitoring of contractor performance may signal a climate of distrust (Kadefors, 2008). Therefore, while monitoring mechanisms are specified in the written contract, the application of particularly close attention to monitoring activities will signal the client's concern to the contractor in relation to performance. Assuming the contractor becomes aware of the signal and wishes to prolong the benefits of the contract, this signal will cause the contractor to review performance behaviours. The client signal to the agent of closer than usual monitoring activity therefore acts as an unwritten contract mechanism. The literature of information economics holds that people's behaviour may be influenced by costly human actions conveying information (Stiglitz, 2002). Signals are visible non-transactional costly expenditures of interpersonal time intended to influence observers (Spence, 1973). Within an unwritten contract relationship then, signals may be viewed as meaningful actions by the principal comprising the costly expenditures of time which are observed by and influence the agent towards a response.

It is possible to categorise signals according to how they are sent from a principal and how they are observed by an agent. From information economics literature, the expenditure of interpersonal time, or willingness to spend time, may communicate interest towards resolving disagreement (Spence, 1973). The demonstration of such resources as budgetary control, expertise, and social skills, may be an influence persuading others towards action (Lawrence *et al*, 2005). Also, the non-functional attendance of organisational leadership figures at events highlights the importance of such events (Spence, 1973). Therefore, a principal may send signals to an agent by actions demonstrating personal time spent on contract matters, their resources in relation to the contract, and their seniority of position in their organisation.

An agent's observation of a principal's signal may provide information, may suggest an incentive, or may demonstrate enhanced mutual interest towards securing the contract outcomes. For example, observation of a principal's change from verbal to written communication may be a signal of poor performance (Nikander and Eloranta, 1997) and labelled a performance signal. Similarly, observation of a principal's assurance of confidence in the agent's ability may provide an incentive (Bénabou and Tirole, 2003) and labelled an incentive signal. Thirdly, the observation of a principal's willingness to discuss a disagreement may facilitate reaching a resolution (Spence, 1973) and labelled a mutual interest signal. These signals mechanisms, used within the *ex post* unwritten contract, are summarised in table 2 and depicted graphically in figure 2.

Table 2 and Figure 2 approximately here

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3. Methodology

Given the exploratory nature of the research project, and that the aim of the research was to generate theory, the project took a qualitative approach based on multiple case studies (Ghauri and Gronhaug, 2010:109; Yin, 2009) of public procurement FM services contracts. The study adopted an agency theoretic approach with the unit of analysis being the contract itself (Eisenhardt, 1989). A similar micro-level multiple case approach was taken by Badenfelt (2011) to examine response to difficulties with incomplete contracts in IT and construction industry projects. The paper draws on an inductive theory-building approach (Mintzberg, 1979) to develop a conceptual model of contract management mechanisms. To enable the building of theory that is relevant to practitioners (Bowers, 1972) the inductive approach involved the collection of qualitative data using a small sample of subjects (Saunders, Lewis, and Thornhill, 2003). Multiple cases allow researchers consider what is unique and what is common across cases thereby promoting increased theoretical reflection (Bryman and Bell, 2011:63; Yin, 2009).

Qualitative data from five FM contracts from one organization (EdCo) were collected and examined in detail. Data was collected over eighteen months from archival material including contract files, tender documents, legal contracts, correspondence, payments, minutes of meetings and emails. Each of the contract principals was interviewed. Notes of the interviews were taken and these were examined and analysed along with other case documentation. For each case study a contingency situation was identified and examined and the mechanisms used by the principal to address this contingency identified, analysed and reported.

4. Findings

EdCo is a government-funded higher education institution with staff and students accommodated in a number of separate buildings in different urban locations in one city. A central FM office manages contracts with private firms for services such as waste removal, catering, and cleaning services. Each contract had an EdCo principal responsible for the contract budget and service delivery.

The details of each FM contract situation are now considered in turn, highlighting the mechanisms of the written contract, an arising and previously unforeseen contract contingency, and the signal mechanisms used by the principal to promote responses from the agent to address the contingency.

4.1 Waste Removal Contract

The waste removal contract was a five year agreement comprising the removal and disposal of wastes from EdCo's buildings by a licenced contractor WasteCo at an annual cost of €300,000. Although initially managed locally, the EdCo FM office decided to centralise the waste contract budget and appointed a single EdCo principal to improve transparency. However, in line with her understanding of the written contract, the WasteCo agent continued to report to the former local EdCo budget holders. The newly appointed EdCo principal met informally with the WasteCo agent over coffee to discuss their understanding of the contract, explain that she alone was now responsible, and to demonstrate that the new approach should improve EdCo's costs, WasteCo's regulatory recycling targets, and indeed WasteCo's prospects for tenders with other organisations. Over a number of meetings, the agent offered a central waste information report format, and a programme to roll out the recycling building-by-building.

In this contract case, a contingency arose when the principal's organisation centralised the contract budget and management while the written contract did not specify these arrangements. The written contract control mechanisms comprised the payments and monthly reports. A number of unwritten mechanisms were also evident. The principal sent a time signal by spending additional time explaining the new arrangements, and a resource signal by demonstrating technical knowledge of regulatory requirements and control of the centralised budget. Incentive and mutual interest signals were evident in the agent's observance of the principal's encouragement that the changes would improve EdCo prospects and that there was a shared interest between the organisations in achieving the benefits of the contract.

4.2 Canteen Catering Contract

This five year contract comprised the provision of catering services by CaterCo to students and staff in eight separate locations. CaterCo retained the takings in each location and paid a rent to EdCo. A contingency arose when the EdCo principal received reports of poor customer service from a CaterCo location manager, and noticed that this location had a lower than expected financial turnover. In response, the CaterCo agent advised that this was not a contract matter. The EdCo principal then wrote a formal letter highlighting her concerns with a comparative financial review of all locations suggesting that financial performance was linked to customer care. Separately, she issued an invitation to the CaterCo agent and his senior management to attend a fundraising event in EdCo. This provided her with an opportunity to comment positively on the agent's performance and the benefits of the contract to both parties. Some weeks later the location manager was reassigned away from customer-facing duties. The CaterCo agent subsequently reported that the financial turnover figures had shown improvement.

The contract contingency comprised reports of poor customer service to the principal which could not be remedied under the terms of the written contract. The written contract mechanisms comprised the retention of sales proceeds, and the monthly reports and meetings. However, a number of unwritten mechanisms were also evident. The principal sent a time signal by writing a comparative report, a resource signal by demonstrating her financial reporting skills, and a position signal by showing that she had access to senior management figures in her organisation. In addition, the agent observed a performance signal by the change from verbal to formal written communication, an incentive signal in the principal's positive comments to senior management, and a mutual interest signal from the discussion by senior management of the shared benefits of the contract.

4.3 Cleaning Contract

A five year cleaning contract was provided by CleanCo to EdCo buildings for a monthly fee totalling €2 million per year. When the EdCo annual cleaning budget was cut to €1.7 million, the CleanCo agent noted that since the contract had specified fixed tasks at agreed labour rates, the change would be grounds for contract termination. The EdCo principal proposed that it was in both their professional interests to find ways of continuing the contract. She indicated her availability for discussions without commitments. She offered to broker any revised arrangements with EdCo senior management. Over two months a new approach was identified based on changing cleaning times to office hours, focusing on the heavily used areas, and setting up a mobile cleaning team. The EdCo principal and CleanCo agent successfully approached their respective organisations to endorse the new arrangement at the reduced budget.

This unforeseen contingency arose due to the principal's organisation reducing the contract budget. The written contract mechanisms comprised the monthly payments and the monthly audits, reports, logs and meetings. A number of unwritten mechanisms were also evident. The principal sent a time signal by declaring availability to the agent, a resource signal by demonstrating her confidence in gaining approval for any new arrangements, and a position signal by indicating her access to the senior management decision-makers in her organisation. In addition, the agent observed an incentive signal in the principal's highlighting of the benefits to her managerial reputation in saving the contract, and a mutual interest signal from the discussion of the benefits to both organisations in continuing the contract.

4.4 Insurance Brokerage Contract

A five year brokerage contract for insurance and claims management was provided by InsureCo for an annual fee of €500,000. While EdCo academic staff would contact InsureCo prior to field trips for confirmation of insurance and other advice, the written contract did not specifically require communications to EdCo end users. Over some months, InsureCo showed reluctance to take calls and increasingly delayed issuing responses. Following a number of telephone conversations, the EdCo principal emailed the InsureCo agent changing the location of monthly meetings to her office, increasing the frequency of meetings from monthly to weekly, initiating formal written minutes, and instigating a weekly log recording end user queries and response completions. The principal explained that EdCo auditors independently review information systems on EdCo contracts, and report back to senior management. On pointing out that it was in both parties' interests to record performance data using the proposed log, the InsureCo agent agreed to use the log on a trial basis. After a number of weekly meetings, the InsureCo agent resumed taking calls directly from EdCo end users, recording these in the weekly log, and was able to demonstrate some improvement in response times.

The slowed response to calls was a contingency which could not be addressed under the terms of the written contract. The written contract mechanisms comprised the annual fee and the information meetings. A number of unwritten mechanisms are evident. The principal sent a time signal by attending more frequent meetings and a resource signal by promoting the weekly log as a management tool. In addition, the agent observed a performance signal by the change to formal written minutes, an incentive signal by suffering a time penalty to attend more meetings, and a mutual interest signal from the principal's comment that the improved information system would benefit both EdCo and InsureCo.

4.5 Property Contract

The property rental contract comprises a 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 quarterly rent payments, 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.

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 resulted in paint peeling off the internal walls, leading to complaints from staff and students regarding the deterioration and the consequent 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. The findings from this case and the other four cases are summarised in tables 3 and 4.

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Table 3 and table 4 approximately here

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5. Discussion

All five case studies clearly demonstrate that the contracts as originally written were incomplete. In all cases unforeseen contingencies arose for which there were no remedies readily available through the written contract. In the cases of Waste Removal and Insurance Brokerage the unforeseen contingency initially arose from within the contract itself. In the cases of Catering and Cleaning the contingencies stemmed from organisational actions or decisions. In the case of PropCo the contingency arose due to an external factor: adverse weather conditions. In all five cases both the principal and the agent were motivated to find solutions to continue the contract and developed approaches based on informal, unwritten arrangements.

In no case however was the written contract discarded or breached. The solution approach involved finding a nuanced agreement between the principal and the agent. The client made its wishes known through signals to the contractor; the contractor interpreted these signals and formulated a response. All three kinds of signal given in figure 2 – time, resource, and position - were used, although not all on each occasion. They were however always used in combination and for several of the contracts all three kinds of signal were used. On some occasions, for example the Property contract, the client had to give multiple signals to the contractor before they responded to the client's satisfaction. The solution to the problem still fell broadly within the boundaries of the original contract and often included mechanisms drawn from the contract. For example while meetings were provided for in the written contract dissatisfaction was signalled by increasing their frequency, making them more formal, or by inviting senior managers along.

The findings suggest a new conceptual framework of *ex post* contract management that includes the original contract with its standard remedies of information systems and incentives but also includes unwritten elements including performance, incentive and mutual interest signals (figure 3). The model highlights the written contract mechanisms that exist to influence the agent to achieve the contract goals: firstly, incentives such as payments or penalties and, secondly, information systems such as site meetings, audits, and reports. The model also highlights the existence of remedies outside the written contract for handling contingencies that arise during the performance of the contract. For the purposes of the conceptual model, these approaches are termed the unwritten contract and comprise signals. The principal sends signals to appeal to the agent to respond to contingencies not covered by the written contract. These signals are based on the principal's non-functional expenditure of personal time with the agent, demonstration of control of resources, or access to positions of organisational leadership. The agent observes any or all of these behaviours by the principal, and views them as performance signals, incentive signals, or mutual interest signals. These influence the agent's decision to make a new response.

Figure 3 approximately here

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6. Conclusion

This study examined five case studies of contracts in their implementation stages, with all five demonstrating the incompleteness of the written contract terms to provide remedies, and the use of signals in managing those contingencies that arose towards useful solutions. The study uses an inductive theory-building approach to develop a novel conceptual model of contract management comprising of written and unwritten contracts with the latter initiated mainly by signals. It uses an information economics perspective of signals as the expenditure of human time in non-functional activities to convey information (Spence, 1973).

This study makes a number of contributions to theory and practice. In terms of practice, it demonstrates that written contracts do not always provide a solution to *ex post* contingencies that arise with respect to a contracted service. It demonstrates that use of signals by the principal can allow a nuanced solution to be found to deal with arising contingencies. With respect to theory, the paper puts forward a model of *ex post* contract management (figures 2 and 3) that provides additional levers by which a principal can implement and control a service contract. This set of contract management levers draws from both the written and the unwritten contract. In particular the research highlights the active use of time, resource and position signals as service contract management levers, and that these signals can be used in conjunction with levers from the written contract such as incentives and information systems. This combination of levers from the written and unwritten contracts provides a strong theoretical framework for *ex post* contract management, a framework that is accessible to practitioners. The paper also provides an application of agency theory to real life facilities management contract situations.

The paper has implications for practicing FM services contract managers. It underscores the benefits of widely discussing the detailed written contract specifications *ex-ante* with organisational stakeholders to provide a wider range of *ex post* remedies. It highlights the importance of careful attention in the design of the contract *ex ante* to contain clauses to provide reasonable contract options by the parties *ex post* in response to contingencies previously experienced by FM managers. It underscores the potential of the unwritten contract and the potential of principals' signals to influence agents' responses towards resolving unforeseen contingencies. It highlights the potential usefulness of theory-building to facilities managers in the search for practical service solutions for their organisations.

The study has the limitations of being exploratory and based on a limited sample of empirical cases. Future research could include a study of contract mechanisms using a larger sample of cases to provide greater generalisability. This paper examined situations where the client organization required a remedy and the response generally required the contractor to extend itself in some way in order to accommodate the client requirements. Other contract contingency situations may require the client to alter its behaviour due to signals from the contractor. This reverse signalling was not examined in this paper but may provide an avenue for future research. Another direction for future research would to examine signals as *ex post* contract management mechanisms from the perspective of the psychological contract. While the theory of the psychological contract more usually discusses the relationship between the employer and employee, it views signals as spoken and unspoken communications of intentions influencing behaviours of agents (Rousseau, 1995). Such a perspective may present opportunities to further explore signal mechanisms in FM services contract management.

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Table 1 Contract management approaches (derived from agency theory)

Agency theory *ex post* mechanisms	**Example**	**Source**
Incentives	Time and materials payments Fixed price payments	Bajari & Tadelis (2001) Sappington & Stiglitz (1987) Eisenhardt (1985)
Information systems	Monitoring Reports Audits	Hansson (2010) Bajari & Tadelis (2001) Eisenhardt (1985)

Table 2 Contract management approaches (derived from signals theory)

Signals *ex post* mechanisms	**Example**	**Source**
Time	Principal expends interpersonal time with the agent on contract matters	Spence (1973)
Resource	Principal demonstrates control of the necessary budget, expertise and skills to manage the contract	Lawrence *et al* (2005)
Position	Principal demonstrates his/her senior organisational position, or his/her access to senior figures in the organisation	Spence (1973)
Performance	Agent observes changes from informal verbal to formal written means of communication by the principal	Nikander & Eloranta (1997)
Incentive	Agent observes the principal's assurances on his/her ability to perform the contract or the likely benefits of a good performance	Bénabou & Tirole (2003)
Mutual interest	Agent observes that the principal is willing to discuss contract difficulties	Spence (1973)

Table 3 Characteristics of the written contracts and their *ex post* situations

Contract	**Description**	**Principal**	**Agent**	**Written contract incompleteness**	**Unforeseen contract contingency**
Waste Removal	Waste removal, disposal and management reports	EdCo Administrator	WasteCo Manager	Written contract did not specify a single point of contact in EdCo	Lack of reports; Delay in roll-out of recycling programme
Catering	Provision of catering in eight locations	EdCo Administrator	CaterCo Manager	No provision to remedy poor staff service to canteen customers	Reports of poor customer service; Decline in revenue
Cleaning	Routine and emergency cleaning	EdCo Administrator	CleanCo Manager	No contract clause to allow changes to cleaning hours or rates	Threat of contract termination
Insurance Brokerage	Negotiation of insurance contracts Claims management	EdCo Administrator	InsureCo Manager	Extent of technical support unclear in contract	Slow response to insurance queries
Property	Rental of sizeable property	EdCo Administrator	PropCo Manager	Lack of clarity as to who is responsible for major paintwork	Extensive re-painting became necessary

Table 4 *Ex post* contract management mechanisms

Contract	Written Contract Mechanisms - Agency Theory		Unwritten Contract Mechanisms – Signals						Agent Response
			Signals sent by principal (P)			Signals observed by agent (A)			
	Incentives	**Information Systems**	**Time**	**Resource**	**Position**	**Performance**	**Incentive**	**Mutual Interest**	
Waste Removal	Prompt payment of waste charges	Monthly waste reports and site meetings	Time spent with agent discussing differing understanding of the contract	Demonstration of technical knowledge and control of budget			A hears principal indicate that changes may benefit WasteCo in future tenders	A observes principal's view of benefits and shared interest of EdCo + WasteCo	Agent implements new waste reports, and recycling programme
Catering	Retention of canteen proceeds	Monthly sales turnover reports; Monthly meetings	Spends time writing a report for the agent.	Exhibits technical knowledge in her study of the canteen performance	Demonstration of principal's access to senior management figures	Agent observes changes of communication from verbal to written letter	P's comments to agent's senior management reinforces agent's confidence	Agent hears expression of the expected mutual benefits of the relationship	Agent replaces unhelpful canteen manager
Cleaning	Monthly payments amounting to €2 million per year	Monthly audits and reports, a complaints log, and a monthly meeting	Willingness to be personally available for informal discussions	Display of confidence in negotiation skills within 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 P's and her interests served by continuing the contract.	Agent re-specifies tasks to reduce labour costs and negotiates approval
Insurance Brokerage	Annual fee of €50,000	Monthly meetings and written summary of claims	Increased frequency of meetings	Introduces the weekly log as a management tool		Agent views change to formal written minutes of meetings	Agent suffers a time penalty in attending more frequent meetings	Agent hears that the weekly log promotes prospects of both parties	Agent adopts the weekly log; Agent improves response time
Property	Annual rent of €390,000	Quarterly site meetings; five yearly review	Increased use of email and one to one conversations with agent	Indicated intention of withdrawing rent; indicated knowledge of the law	Calling in senior manager support	Agent notes intercession of senior managers	Agent recognised imminence of financial penalty	Agent hears senior manager emphasise long term reputational interests	Agent agreed to carry out structural repairs

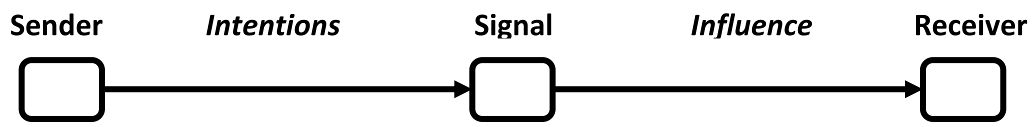

Figure 1 A simplified model of communication

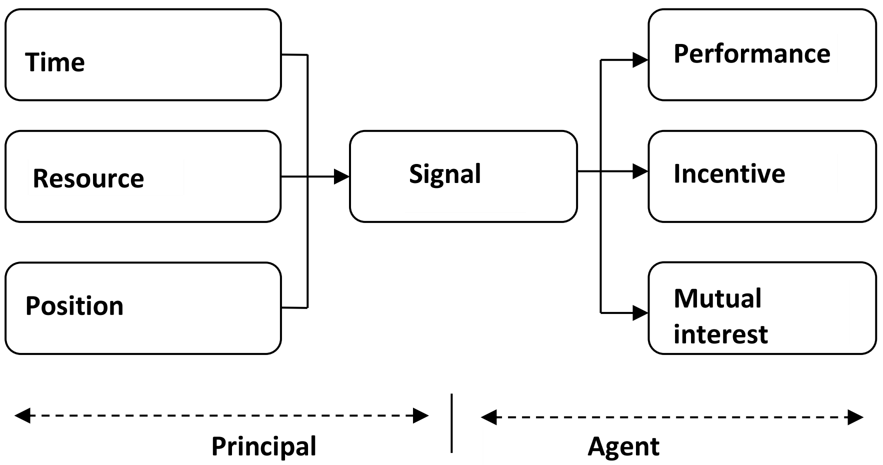

Figure 2 A model of *ex post* contract signals

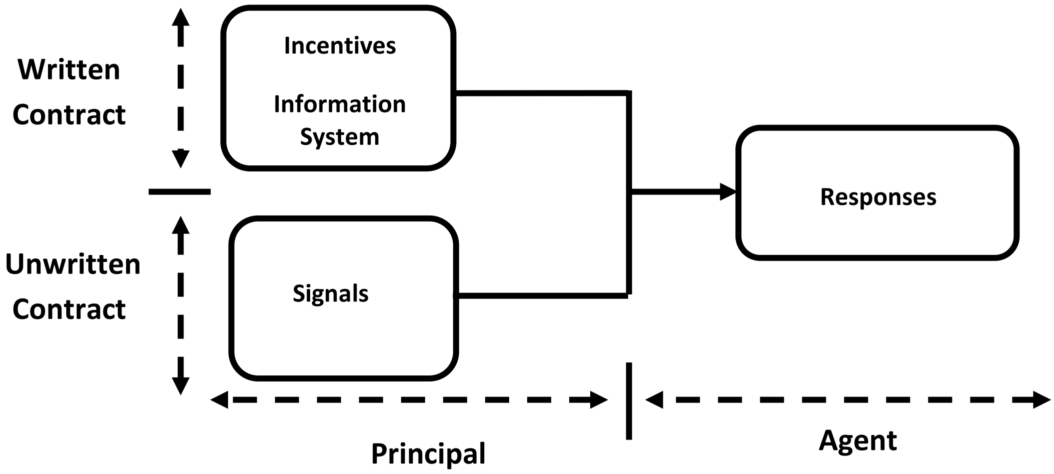

Figure 3 Conceptual model of *ex post* contract management