Managing services by PFI contracts or by other means?
A comparative analysis from the UK school sector

by Yasmin Sooby

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School of Government

University of Birmingham

Abstract

This thesis focuses on the processes of managing contracts in schools, and, more specifically, compares the experiences of doing so under the Private Finance Initiative (PFI) arrangements with those encountered in other non-PFI schools. The comparative study has been chosen particularly to examine the causation between contract design and outcomes and to understand which variables are the most influential in the process of contract management. As well as analysing samples of contracts, interviews were conducted with personnel from a set of schools and their local authorities to gather primary data on experiences of negotiating and managing services such as cleaning, catering, and small repairs.

The findings highlighted a number of flaws in the design of PFI contracts which created difficulties for the schools to manage, not least of which was the inability to access alternatives, so weakening the schools' negotiating position. Several of the PFI contract mechanisms also seemed designed to punish opportunistic behaviours and served to ensure that the schools failed to achieve value for money. Financial penalties for shortcomings/failures by contractors for schools were found to be generally weak and ineffective, as was the limited amount of benchmarking and market testing undertaken. Particular problems were also identified in relation to PFI contracts regarding asymmetric information around the life cycle costs of school buildings. All such issues seem to play a part in making it very difficult for schools to negotiate market-competitive prices and to deter opportunistic behaviours from PFI contractors. In contrast, the experience in non-PFI schools was that it was easier for staff to achieve the desired outcomes. Shorter contracts and break-out clauses meant that non-PFI schools had easier access to other potential suppliers and so were usually in stronger negotiating positions. Since contractors for non-PFI schools are not responsible for the life cycle of the building, the problem of asymmetric information around the price of services was found to be less acute. However, the research did find that both PFI and non-PFI schools could be affected by similar factors and in analogous ways. In this respect, a range of economic, political and social factors was identified as being likely to influence outcomes within both categories of schools.

The findings from the research make significant contributions to our understanding of procurement, contract design and management of infrastructure-related services. In particular, they provide a clearer picture of the experiences of public sector procurement teams in managing contracts and in the determination of the outcomes achieved in practice.

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Contents

Abbreviations and Acronyms

ASB	Accounting Standards Board
CEGB	Central Electricity Generating Board
DBFO	Design-Build-Finance-Operate model of Public-Private Partnerships
EU	European Union
FRS5	Financial Reporting Standard 5
GDP	Gross Domestic Product
HMT	Her Majesty's Treasury
ICT	Information and Communications Technology
IFS	Institute of Fiscal Studies
LCD	Lord Chancellor's Department
LSE	London School of Economics and Political Science
NAO	National Audit Office
NHS	National Health Service
NPM	New Public Management
OECD	Organisation for Economic Co-operation and Development
OFGEM	Office of Gas and Electricity Markets
OFTEL	Office of Telecommunications
PFI	Private Finance Initiatives
PF2	Private Finance 2 contracts
PPP	Public-Private Partnerships
SOPC	Standardisation of PFI contracts
UK	United Kingdom
USA	United States of America
VFM	Value for money

Tables and Figures

1. Introduction

1.1. Background

The approach to procuring infrastructure and services has, for many years, formed a key aspect of debates about how aspirations and expectations for public services might best be met. Over the course of the late twentieth century, the British government strategically shifted away from state-funded, state-owned and state-operated infrastructure and towards greater private sector involvement. This was achieved through outsourcing the production and delivery of services, if not by direct privatisation, typically, either by establishing what are known as 'public-private partnerships' or more directly through establishing a contract with a private operator under the Private Finance Initiative (PFI). Since the 1980s, the UK's public-private partnership model, in particular, has been widely used partly to limit government spending and also to try and improve the quality and accountability of public services.

Contracts under the PFI for infrastructure projects were first developed in the UK in the early 1990s. These were, in essence, a new form of public-private partnership and were used extensively under successive governments between 1990 and 2010. They were employed in a wide variety of sectors, including healthcare, education, prisons, defence, transport, waste treatment, and recreational centres, both to develop new facilities and to upgrade existing ones. Improving the quality of physical facilities was seen as a priority at the time following many years of low investment during the 1980s and early 1990s under the Conservative government (IFS 2009). An ambitious programme of infrastructure renewal took place under the New Labour government from 1997 to improve and develop hundreds of new facilities around the country, particularly schools and hospitals (Flynn and Asquer, 2017).

PFI contracts were controversial because they brought private-sector providers into a large range of core services that had traditionally been owned, funded and provided by the state. The emergence of neoliberal politics in the late 1970s invoked a significant shift of control away from the state and towards the private sector. Prior to this, private sector involvement in public services has been largely limited to designing and building, rather than financing and operating infrastructure. PFI contracts led to ownership rights over the buildings being held by the private sector for a pre-defined period, typically up to thirty years, before the ownership could return

to the public sector. From the outset, critics of the change expressed concerns that the public sector would lose strategic control over the infrastructure, that the public sector ethos of the services would be lost, and indeed, that the public sector would end up paying more in the long-term for the services because of the loss of control and profit margin of the private operator.

Supporters of PFI contracts as a procurement tool argued that it gave the Government the ability to deliver a greater number of infrastructure projects because payment would be spread over a longer period (House of Commons Committee of Public Accounts 2003). They also argued that buildings would be of better quality than those constructed by the state because the private sector offered greater expertise in building and was better placed to innovate. Moreover, supporters of PFI contracts believed that the private sector would have greater incentives to invest in the quality of services because they would be responsible for maintaining the building once completed. At the end of the contract period, the private sector provider would have to hand the building over to the public sector in the same condition as at the start of the operational period.

Against all this, criticisms of PFI contracts have mainly centred around the value-for-money of the projects and whether the public sector was being exploited by private sector providers, driven by the contract design not allowing for any competition once contracts had commenced (Pollock 2008; NAO 2011; HM Treasury 2012; HM Treasury, 2018). A recent study by the UK government on PFI contracts (HM Treasury 2018) concluded that some of the PFI contracts delivered in certain areas had failed to meet their value-for-money criteria and this was a key reason why, in 2018, the UK government decided not to use PFI contracts for infrastructure projects in the future.

1.2. Thesis rationale

Extensive research has been undertaken over many years focusing on the outcomes of PFI contracts, particularly on value-for-money, on the nature and cause of problems encountered, and how the contracts might be improved**.** The core argument underlying this thesis is that further opportunity exists to learn more and understand the impact of PFI contracts and service outcomes better. While much more emphasis has been placed on the costs involved in PFI contracts there has been significantly less discussion of the quality of service produced,

particularly for ‘soft services’ such as maintenance, cleaning, and catering. There has also been relatively limited focus on the impacts of the governance mechanisms in individual contracts for holding the private sector to account in a PFI arrangement. Furthermore, there has been little scholarly research that has investigated similarities and differences of design between PFI contracts in different sectors, with a tendency to discuss PFI as a single, homogeneous subject. There has not been rigorous investigation of whether, or how, different versions of PFI contracts have resulted in different outcomes. Moreover, there have been very few in-depth analyses of the influence of other factors, including the external environment, such as economic, political and social factors, that might perhaps affect the outcomes of a PFI contract, or indeed, other forms of procurement too. Equally, there have been few rigorous studies comparing outcomes of PFI and other (non-PFI) contracts, making it difficult to know whether or not contractual form is a potentially important variable.

A key focus for the research in this thesis has been to understand the relationship between contractual mechanisms and the outcomes achieved in a PFI contract. Literature from both government and academia have established that the public sector client generally pays above the market price in PFI contracts. However little explanation has been proffered as to how the PFI negotiation process impacts upon the pricing decision. As a result, it has remained unclear quite how PFI contractual mechanisms are deployed in practice or how they affect service outcomes.

The findings of primary research on these issues are presented in this thesis which examines how negotiations affect outcomes. There is a particular focus on the design of PFI contracts, how they differ from other forms of contract, and how they perform with regard to prices and quality. The thesis also describes the influence of factors from the external environment on the outcomes achieved through PFI contracts and the nature of the relationship between such factors and overall performance. Given that PFI contracts are now to be replaced with a new procurement strategy, the thesis also describes how the performance of PFI contracts has compared with other forms of procurement through state funding. Here the aim has been to understand the negotiating process in PFI relationships and other procurement channels and therefore whether the outcomes achieved under PFI can be attributed to the special features of such contracts. In a similar vein, the thesis considers the effectiveness of the PFI governance structure as a substitute for competition and if and how the quality of the relationship between the public and private sectors makes a difference in what is ultimately achieved.

Alongside the focus on PFI contracts, the research for this thesis has also focused on the procurement of what is usually termed 'soft services' and 'hard services' under more commonly-used (non-PFI) contractual arrangements, again in the school sector. This was done to provide the basis for a comparative analysis, to illuminate the differences achieved for public sector clients respectively in PFI and non-PFI schools. This led to a key question for the research, namely the extent to which client satisfaction might be an issue irrespective of the form of procurement, or in other words, a consequence of other circumstances. In this respect, this research has drawn on contract theory both to provide insights into behaviour within both the public and private sectors and to explore whether outcomes could be predicted according to the particular contract models being used. Contract theory focuses on the trading decisions that individuals make under given circumstances including situations where contracts are inadequately fulfilled or incomplete. Such a theory has underpinned part of the analysis in this thesis to help in understanding the power balance between the contracting parties in both PFI and non-PFI contexts.

1.3. The scope of the research

The scope of this research covers the contractual management of services within both PFI and non-PFI schools and addresses their impact on service performance. As well as analysis of data from PFI schools, it includes equivalent assessments of outsourced and in-house managed services within non-PFI schools. As indicated, the research has aimed to understand how different factors throughout the contract management phase have influenced outcomes in both categories of school, to determine whether contract designs and management practices proved better in specific cases.

The service outcomes examined were components of value-for-money. This thesis adopts the National Audit Office's definition which asserts that three factors contribute to value-for-money, specifically economy, efficiency, and effectiveness. The first, economy, is defined as 'minimising the cost of resources used while having regard to quality'. Efficiency concerns the 'relationship between outputs *e.g.* services and the resources used to produce them'. Effectiveness assesses the 'extent to which objectives are achieved and the relationship between intended and actual impacts of a service'. This research explores whether the pricing

for services was market competitive, thereby achieving true 'economy' and whether the effectiveness of the procured services was achieved by examining the quality of service and to what extent the providers met the schools' expectations.

The primary research for this thesis was undertaken through interviews with a sample of practitioners involved in contract design and management at a number of schools, some built and operated under PFI contracts, others managed by local authorities, or academy trusts. The interviews were semi-structured and explored experiences and perceptions regarding the impacts of contract design and management, the process of negotiation/renegotiation, and how any concerns and disputes were handled/resolved. The findings from these interviews were then assessed against the relevant contract documentation and the procurement and management regulations and guidance under which the PFI and non-PFI schools have to operate. The research has focused specifically on the procurement and management of 'soft' services which are those outside the routine maintenance of buildings and equipment (Yescombe, 2007) and in particular on cleaning and catering. However, for further understanding of how negotiations in the school sector work in practice, experiences of procuring minor repairs and also more significant building projects were also explored in the interviews.

Three key research questions were defined to give overarching focus to the research and subsequent analysis.

1. How effective are the PFI contract mechanisms in supporting the public sector's negotiations for services?
2. How do outcomes compare between PFI and non-PFI procured contracts? What are the similarities and differences between PFI and non-PFI procurement?
3. What external environmental factors affect service negotiation success in schools?

The methodological approach chosen was of a case study design, the education sector being defined as 'the case' for the study of service procurement. A critical realist paradigm was then adopted for the case study approach. The research sought to examine in depth the relationship between contract management factors and processes (notably, the contractual and relational

mechanisms, institutional influences, and factors in the wider external environment) and the service outcomes that were being achieved.

1.4. The structure of the thesis

Following the introductory chapter, this thesis, which is organised into nine further chapters, begins by examining the development of public sector procurement strategy in the UK in the twentieth century and identifies the different forms of procurement, including PFI contracts that have been pursued to date. Chapter 3 then focuses in greater depth on the use of PFI contracts and explores the nature of arguments about this (controversial) form of infrastructure procurement that has shaped so much government policy and practice in relation to infrastructure provision. Next, Chapters 4 and 5 review contract theory and the literature on best practices in the design and management of contracts.

Chapter 6 establishes the objectives for the primary research for the thesis, introducing the key research questions in more detail and how they were inspired and shaped to address gaps and uncertainties in the scholarly literature on PFI contracts and contract theory more generally. The chapter then outlines the research design and discusses the ontological and epistemological approach that has been followed in addressing those key research questions. Finally, the chapter introduces the methods involved in data collection and discusses the field-work and subsequent data analysis processes that were followed. Chapters 7 and 8 summarise the main findings from the data collection while Chapter 9 develops their presentation further by specifically focusing on the three key research questions in turn. Finally, Chapter 10 provides a summary of findings and conclusions from the research before putting the thesis into context by considering the policy and practice implications and, in light of the study, also highlighting areas for further research into the future.

2. Infrastructure and procurement policy in the United Kingdom

2.1. Introduction

Procurement policy for public sector infrastructure within the United Kingdom (UK) has been steadily evolving at least since the Second World War (WW2). However, in the 1980s, the UK government took such policy in a markedly different direction when it experimented in using the private sector to deliver public services and adopting new procurement models, notably through the Private Finance Initiative (PFI). This chapter begins by discussing the scope of infrastructure and procurement options and summarising how UK infrastructure policy evolved in the post WW2 period and including the development of PFI.

2.2. Types of procurement of infrastructure in the UK

The UK public sector is responsible for delivering a wide range of goods and services. Key services that are provided by public authorities range from cleaning and security, to producing and running large infrastructure projects such as hospitals, schools, transportation, housing, and defence. Central government and local authorities have different options when deciding how to deliver such services. One approach is to deliver the service themselves. Alternatively, the government could buy the services from the private sector and pay it to provide them on their behalf. A local council or nationally-run service such as the NHS can consider outsourcing certain services on short-term contracts that do not require significant investment in task-specific assets. Such services might include 'back office' functions, such as cleaning, security, recycling, and administration. Infrastructure projects require large investment from the private sector if they are to be involved and, as it is likely to take a long time for the private sector to receive a return, the form of involvement will probably differ.

After the Second World War, several options for public procurement were developed and used by the UK government. Recently, it has become more common for its services to include both public and private provision, through public-private partnerships (PPPs). PPPs have been given a variety of definitions by politicians and academics. Lonsdale (2007, p. 312) argues that PPPs 'are less of a concept than a "family of techniques", encompassing all manner of government-business arrangements'. Klijn and Teisman (2003, p. 137) define PPPs as 'co-operation

between public and private actors with a durable character in which actors develop mutual products and/or services and in which risks, costs and benefits are shared'. Their definition of PPPs is based on the assumption that the public and private sector will have collaborated because they expect to achieve mutual added value, and foresee additional benefits outweighing the extra costs of cooperation. In terms of procuring infrastructure, there are a range of PPP options that the government can and do pursue. This thesis is particularly concerned with procurement policies for such infrastructure projects.

2.2.1 The definition of infrastructure

The OECD (2000, p. 188) defines infrastructure as 'a system of public works in a country, state or region, including roads, utility lines and public buildings'. In contrast, the definition by Kay (1993) does not mention any particular services as exemplars of infrastructure. Kay (1993, p. 55) argues that it has the characteristics of 'networks; they involve delivery systems and there are substantial interactions in the provision of services to individual customers'. Much of the literature on infrastructure has placed different types of infrastructure into categories of 'economic' infrastructure and 'social' infrastructure (Yescombe, 2007; Grimsey and Lewis, 2004). Economic infrastructure is defined as providing intermediate services to businesses and industries, which are aimed at enhancing productivity and innovation. Economic infrastructure includes roads, motorways, railways, airports, telecommunications, and vocational training. Social infrastructure provides services to households, and included in this category are hospitals, schools, housing, prisons, care homes, and community services (Grimsey and Lewis, 2004; Yescombe, 2007).

Given the varying nature of economic and social infrastructure, Kay (1993, p. 55) suggests that infrastructure 'are networks…and there are substantial interactions in the provision of services to individual customers…They have substantial elements of natural monopoly. Competitive provision of the infrastructure itself is costly, often prohibitively so…capital costs of infrastructure are generally large relative to the running costs'. Heald (1997) argues that a key characteristic of infrastructure is that it requires large investments into physical and human capital to provide a stream of services in the long term. Both Kay (1993) and Heald (1997) suggest that, as such projects are natural monopolies, the state has to be involved in some form

because economic benefits could not be optimised if they were to be run by the private sector. Therefore, such services tend to be a 'collective input into production' by government.

The variety of definitions of infrastructure aligns with the view that infrastructure provides services for use by the public on a national scale. As a consequence, these services need to be provided on a large scale over a long period to optimise the benefit of their provision to society, and therefore require significant investment from provider(s). The scale of investment represents a large barrier to market entry and leads to relatively few producers who are willing (or sufficiently capitalised) to operate in the PPP market as they will need a large market share to cover such costs. As Heald (1997) and Kay (1993) argue, the nature of infrastructure service means it is often prone to becoming a natural monopoly (although not in all cases), and it needs some form of government intervention to overcome market failure, which would otherwise result in not enough provision.

Factors of ownership, motivation, funding and responsibility for managing risk determine the categorisation of procurement policy. Ownership is defined as being when a party has property rights over an asset. Motivation is concerned with the incentives of the parties who own and manage the asset. Funding refers to the sources where the money comes from to construct and operate the assets providing services. Finally, there are many risks that parties face when constructing and managing an asset in operation. Yescombe's risk matrix (2007) separates these risks into general risks, construction phase risks, and operational phase risks. Firstly, the general risks are political and economic risks that could make the project more expensive or inappropriate. For example, inflation would create uncertainty about the project costs or a change in the law could make a project unnecessary. Secondly, in the construction phase there are risks associated with the suitability of the site; for example, the ease of acquiring permits for the proposed infrastructure and the condition of the ground on which infrastructure will be built. There are also risks associated with construction of the asset: there could be unexpected price adjustments for goods or labour. If the producer uses a subcontractor, they might not meet expectations regarding quality. There is the risk that the client might not pay them during construction, if funds are not available. There are also completion risks, if the construction company fails to finish on time or the building does not meet the design and performance specifications of the client. Thirdly, in the operational phase there could be problems with a lack of demand for the services that the building provides, known as demand risk. This could lead to a loss in profits for those responsible for production. There are risks associated with the

maintenance, availability of the service, and operational expenditure on the asset. Again, there is the risk that the client might not pay for services on time. Also, if it is an asset that has been leased to a private company for a given period, then there is the risk that the company will not return the asset in the condition set out in the contract. Table 1 defines each form of procurement based on ownership, risk management, motive and funding:

Table 1 Factors differentiating forms of procurement

Procurement method	Traditional procurement	PPPs	Privatisation
Ownership	Public sector has full ownership rights	Ownership of an asset is either shared or changes hands between the two sectors over time	Private sector has full ownership rights
Risk management	Every risk-managed by the public sector	Shared between public sector and private sector	Every risk-managed by the private sector
Motive	Political objectives	Mixture of political objectives and profit maximisation	Profit maximisation
Funding	Public funding through taxation and government borrowing	Investment from a mixture of private and public funds.	Funding through revenues

Some factors are not exclusive to particular procurement approaches:

Payment method (who pays): individual paying customers may be paying for a service under every type of procurement. As an example, consumers are paying for electricity whether the industry is nationalised or privatised. There are also public-private partnerships that provide a service for individual customers, such as the Millennium Dome project in London.

Production: the private sector may be used under all types of procurement. The difference between the approaches is (a) how much the private sector is involved in the production line and (b) the influence the private sector has on production and delivery strategy.

Who is paid: as the private sector can be involved in production in all types of procurement, they can make profits under any approach. However, the scope to make profits is greater under public-private partnerships and privatisation because they are producing a greater range of services over a longer period.

New/existing company: if a nationalised industry or a service that was solely delivered by public sector workers moves towards becoming a public-private partnership or is privatised, this does not mean that new assets are necessarily being created. It could simply be a transfer of ownership rights from government to private sector providers for a period of time.

Procurement processes and controls: there will inevitably be similarities in processes and controls used in the various forms of procurement, which influence quality and performance.

Other factors have also been considered in defining differences in procurement approaches because some of the above factors are not exclusive enough to different forms of procurement (Flynn and Asquer 2017). For example, although access to hospitals is free on the National Health Service, patients are required to pay for medication in particular circumstances. Flynn and Asquer (2017) argue that there are exceptions in defining types of sectors by ownership and funding. Therefore, the characteristic that makes the privatised sectors different from public sector provision of goods and services is the connection between ability to pay and access to the service as well as that it is not directly beneficial to the organisation to attract more customers. The ability to pay and access to services is direct with the private sector, whilst this connection varies with public provided goods and services. As customers do not often pay for the majority of goods and services where there is public provision, more customers do not directly benefit them in the way they do for the private sector.

There are important differences between the public procurement, PPPs and privatisation. This has led to considerable debate over the impact that the procurement method can have on quality and quantity of services, distribution, the balance of power between buyer and seller, and in representing value for money.

2.3. Historical development of the procurement of infrastructure in the UK

Central and local government have adopted different approaches to procuring infrastructure as the government's role in the UK economy expanded during the twentieth century (IFS, 2002). In the post Second World War period, UK government policymaking was heavily influenced by Keynesianism (Marquand, 1996). In 1945 the UK government inherited a highly centralised economy. The Keynesian paradigm significantly influenced public policy, and successive governments favoured a mixed economy which was centred on demand management from the 1940s to1970s (Tomlinson, 2002). State intervention increased significantly after 1945 as the new welfare state developed. Concerns over equal access and equal treatment dominated debate during the 1950s and the 1960s across Europe. Before the Second World War, access to services had been unequal amongst different groups in society because the human rights movement had not yet become prominent, despite impartiality in the provision of public services being guaranteed by governments in developed nations. As social values changed, representation became a key issue (Blum and Manning, 2009).

The UK government chose to become responsible for providing universal health and education services, social housing, and transportation infrastructure. The preferred approach of procurement up to the early 1970s was to 'make rather than buy services from the private sector on behalf of the public and therefore many industries were nationalised. Nationalised industries can be defined using the factors in Table 1. The public sector fully owns the asset that produces services for the public. The public sector bears all the risk of failure throughout all stages of the project. This includes the design, building, and management of the facility. From the beginning, the public sector owns the asset and has control over the operational strategy of the project. They are also fully responsible for the quality and outcomes of the service. As the public sector has full ownership of the asset, they control how it is used strategically. They are usually motivated by the political objectives of central and local government. Under public sector procurement, this is fully funded through either taxation or government borrowing from the financial markets.

Under traditional procurement for infrastructure, the private sector is not involved in the project on a long-term basis. A typical project would involve the public sector designing an asset

according to specifications, then offering a contract to a company to construct the asset. The private sector bears neither the risk of overruns of the construction, nor any risk during the operational period, because the public sector will operate the asset. There is very little competition in the process of production and there are no rival firms that the government needs to compete with. Up until the 1980s, the UK government owned a variety of industries and had full responsibility for the production of services. Examples of these industries include the electricity supply market, 'British Airways', and the telecommunications market. Three factors, in particular, underlay the UK government's shift in the 1990s away from state support for key industries (the nationalised industries) in favour of public-private partnerships, including PFI contracts, as the preferred means for procuring infrastructure.

1) Dissatisfaction with nationalised industries

There was only limited concern over the affordability of this form of procurement during the 1950s and 1960s, as the UK experienced strong economic growth and budget surpluses. The public sector borrowing requirement was only 3.7% of GDP in 1972/3. However, the affordability of the procurement of public services became subject to debate in government as the public sector borrowing requirement as a percentage of GDP jumped significantly and unexpectedly during the 1970s. By 1975/6, borrowing increased to 9.6% of GDP (Tomlinson, 2002). Large increases in oil prices during 1971 and 1974 led to a sharp increase in inflation and explains why the increase in borrowing was unexpected and unplanned (Skidelsky, 1996; Tomlinson, 2002). Furthermore, the breakdown of the Bretton Woods exchange rate system led to greater instability in the economy and adversely affected the UK's balance of payments. Inflation and unemployment both increased during this period, a policy dilemma that the UK government had not faced since the Second World War. Moreover, during the latter half of the 1970s, it was increasingly difficult to raise funds through taxes or financial markets due to a recession and a collapse in the foreign exchange market in 1976 (Tomlinson, 2002).

Dissatisfaction with the performance of nationalised industries also grew in the last quarter of the twentieth century. Research suggests that the business cases for public-sector funded infrastructure projects tend to be more optimistic than the business cases for PPPs in terms of timing, capital expenditure, and operating expenditure (Holm and Buhl, 2002; Mott McDonald, 2002). Mott McDonald found that in the UK operating costs exceeded estimates by 47% and capital expenditure was on average 47% more expensive than estimated in a survey of fifty

projects. Hodgson (1995, p. 68) argued that the UK's experience was partly because of the '…attitudes and culture of the public sector. In the construction sector, this often results in conservative or over-engineered designs'. Not only are the business cases less rigorous, but also during the operational period of service delivery there are not as many checks because they are not subject to external auditors (Grimsey and Lewis, 2004). Surveys from the National Audit Office (2003, 2008) indicate that the design and construction of an asset are more likely to be on time and within budget in projects when the risk is transferred to the private sector. Comparative studies from the National Audit Office (2003) suggest that under Private Finance Initiative contracts (a form of public-private partnership) only 22% were not within the budget of the agreed contract and construction of the asset was delivered late to the public sector only 24% of the time. When infrastructure was procured under non-PFI procurement, including traditional procurement, the cost of construction to the public sector exceeded the contract price 73% of the time and the construction of the asset was delayed in 70% of the projects.

Moreover, it has been argued from a variety of sources that traditional procurement leads to inefficiency in the design and operation of a building. Some studies have suggested that, because traditional public sector procurement methods generally outsource design and construction contracts, but are responsible for the operational risk of the building, there is less likely to be consideration of whole-life costing of the asset (NAO, 2009; Akbiyikli, Eaton and Umit, 2012; Wang, Wei and Sun, 2014). The private sector company responsible for designing and constructing the building has no incentive to make the building operationally efficient because they bear neither the risk nor the reward of operating the building. Therefore, there is a greater risk that the government will be managing an inadequately designed asset, which will be harder to manage efficiently during the operational period and more likely to have a shorter life span. Under PPPs, there are greater incentives for the private sector to take into account the efficiency and sustainability of the asset if they are responsible for the maintenance of the asset for up to thirty years.

Kay (1993) suggested that nationalised industries did not suit the changing external environment affected by the impact of technological changes and increased international trade. The management of infrastructure on a national level became a barrier to trade, as technological changes had made it easier to provide services at low volumes, making the case for national producers less compelling.

2) A different ideological approach to public sector procurement

Another reason to abandon traditional procurement in favour of the form of public-private partnerships proposed by the New Public Management movement was that the former offered little incentive to be responsive to consumers or the changing external environment and therefore did not encourage innovation in solving problems (Bouckaert and Pollitt, 2012; Bovaird and Loffler, 2009).

The policy debate shifted towards the need to cut public expenditure by the end of the 1970s as the 'New Right' paradigm developed by Hayek, Friedman, Mises and Robbins offered an alternative solution. Ideas from the 'New Right' paradigm, with its emphasis on market freedom, a small state, and social and monetary discipline gained increasing popularity within central government as officials and ministers struggled with macroeconomic problems using the Keynesian approach. The paradigm also started proving popular with the electorate and therefore began to shape the political agenda in the UK (Marquand, 1996). The Thatcher government voted into power in 1979 set out to reduce state intervention where possible and promote the market. There was a shift in fiscal policy away from managing macroeconomic outcomes and towards financial management (Marquand, 1996).

As intellectual faith in free markets took hold across the world in the 1980s (Skidelsky 1996) and the UK government adopted a Monetarist paradigm, Blum and Manning (2009) argued that values shifted away from concern over equal access and equal treatment and towards responsiveness to the priorities of elected politicians in the 1970s and 1980s. Market-led solutions were perceived to be better suited both in responding to a fast-changing environment and greater expectations from the public because the market mechanism would ensure supply would follow demand. This became a movement known as 'New Public Management' (NPM) paradigm which spread across developed countries in the 1980s. Many commentators have provided their own definitions of NPM and the characteristics it encapsulates. However, all agree that the NPM model emphasises the importance of services being 'customer-centric' and cost-efficient (Hood, 1991; OECD, 1993). As a result, many nationalised industries were privatised during the 1980s. These included British Aerospace, British Airways, British Telecom, British Electric Supply, and Rolls Royce. The privatisation of industries can be defined by the following criteria from Table 1 and involves assets previously owned by the government transferring to the private sector. The private sector fully owns the asset and can

control strategically how it is operated. It also has full responsibility for every risk relating to the asset. With a privatised service, the private sector fully funds and bears all the risks of the project, as they construct, operate and collect the revenue from users. They are entirely responsible for the quality and outcomes of the service. The public sector bears no risk regarding the outcomes of the facility. The only form of government intervention in this market is the regulation with which the private sector is required to comply. The motive of the private sector is to maximise profits from the services produced by the asset. Users pay the private sector through fees for their service. These industries are entirely funded through an investment of profits from sales and borrowing from private investors.

It was believed across the public sector that tools that could deliver customer-centric services and shift risk to the private sector included outsourcing services, using public-private partnerships, and introducing performance measurements (OECD, 1993; Bouckaert and Pollitt, 2011). Emphasis was placed on accountability, flexibility in responding to individual needs and decentralising authority towards lower-tiered managers. Perceptions regarding the appropriate role and scope of the state in the provision of services have changed since this period. Another reason why the use of PPPs gained favour was the increasing popularity of the concept of 'partnership' within the NPM movement and the engineering construction industry. Bouckaert and Pollitt (2011) argued that as the 1990s progressed, the NPM movement changed its approach, placing renewed emphasis on new concepts such as ''governance', 'partnership', 'joined-up government'/ 'whole of government', and then to 'trust' and 'transparency.'' These values were reflected in some of the government actions taken in the mid-to-late 1990s. For example, the 1995 White Paper 'Setting New Standards' suggested partnership relations were key to the success of contractual performance and thus began the shift away from short-term competitive tendering procedures to a new approach to relationships between government and contractors.

The Local Government Planning and Land Act 1980, Part Three was introduced to reduce costs through bringing in competition for the provision of in-house services in local authorities. The Ryrie rules were created to provide criteria for the use of private or additional finance (Allen, 2001). They required that private finance could not be used in addition to public finance. If the use of private finance increased, then public expenditure would have to be reduced by the same amount (Heald and McLeod, 1992). The adoption of the PFI model in 1992 was a departure from the Ryrie rules because, under this form of infrastructure procurement, private finance

can be used in addition to public finance, through a Special Purpose Vehicle (SPV). Prospects for private financing for a variety of projects have also increasingly improved since the 1980s, making it more feasible to adopt PPPs as an alternative to traditional procurement. PPPs have also been more widely used because of the refinement of the private financing model and the development of project finance techniques to 'engineer' the finance to suit PPP structures (Grimsey and Lewis, 2004). The channelling of the supply of private finance for infrastructure projects has underpinned the development of the PPP concept. Moreover, the methods developed for 'design and build' road contracts pioneered techniques that are now used for a range of PPP projects.

Public-private partnerships can be defined by the factors shown in Table 1. Ownership is shared between the private and public sectors, often through a Special Purpose Vehicle where both private and public sector stakeholders jointly own an asset. The risks associated with a project shared between the public and private sectors is that both are exposed if the project fails to deliver on its objectives. As ownership is mixed, the motive behind investing in the project varies, as stakeholders are wide-ranging. Funding tends to be mixed as both usually contribute to the costs of the project. How this is structured depends on the type of PPP adopted.

3) Shortage of capital to fund national infrastructure

A third reason why public-private partnerships started to be used more in the 1990s, and in particular PFI contracts, was because it was seen as a solution to the problem of raising enough capital for projects. Whilst it became harder to fund a range of infrastructure services through traditional procurement because of macroeconomic outcomes after the 1960s, demographics have changed significantly since this period, resulting in the UK government facing different challenges (Tomlinson, 2002; Skidelsky, 1996). Since the 1970s, public policymakers have had to change the assumptions they previously relied on when providing public services. For example, an increase in life expectancy has led to a significant rise in the aged population in the UK, which has put pressure on providing adequate health services, especially as medical interventions have become more complex. Census data showed that the number of people above 65 grew by two million between 1951 and 1971, an increase of nearly 50% during this period (ONS, 2000). There has been increased congestion on transport routes during the latter half of the twentieth century. During the 1980s, road and motorway traffic increased by at least

a third and it was projected that between 1990 and 2015, intra-EC road traffic would grow between 110 and 140 percent (OECD, 1993).

The nature of expectations from the public also changed throughout the twentieth century which increased the difficulty of providing infrastructure. Changes in lifestyle patterns and new rights gained by different groups in society meant the way the UK government supported the public evolved. Such changes included an increase in the participation of women in the workforce (Bovaird and Löffler, 2009). For example, one reason the government had to spend significantly more on social security from the mid-1970s was because of higher levels of unemployment and low-income lone parents (IFS, 2002). Thus, as Jackson (2001) concluded, policymakers had to provide services for people in a greater variety of situations. Government spending on benefits as a percentage of general government expenditure rose from 20% in 1976 to 30% in 1986 (IFS, 2002). The increase in expenditure on social security meant there was less funding available for renewing infrastructure without increasing taxes or borrowing from financial markets. Governments after the 1970s wanted to minimise spending on infrastructure (Kay, 1993) and therefore have sought ways to introduce the private sector into the provision of services.

One reason the UK government decided to use private investment in building new infrastructure in the 1990s was to overcome the problems caused by under-investment in UK infrastructure from the mid-1970s to the early 1990s. There were key areas that the Conservative government chose to cut during this period, as the priority was to reduce the government deficit (IFS, 2001). For example, 2% of GDP was spent annually on social housing from the 1950s to 1975, but this was reduced to 0% of GDP by 1982. There were some fluctuations in spending on social housing in the early 1980s, although the level did not go any higher than 0.5% throughout the 1990s. Gross public capital formation on education in terms of percentage of GDP grew between 1956 and 1973, reaching a peak of 0.7%. However, spending on education fell quickly and, by 1982, only 0.2% of GDP was spent on education and fluctuated between 0.15% and 0.25% during the 1990s. Spending on the National Health Service rose from 3.5% of GDP in 1949 to 5.7% in 2000 and health investment rose year on year and peaked in 1973 at 0.4% of GDP. After this period, investment remained between 0.25% and 0.3% until 1991. In the transport sector, road investment fell both as a percentage of GDP and in real terms from 1970 to the 1990s. In 1970/71, road investment accounted for 1.5% of GDP and declined to 0.7% in the 1980s. It fell even further to 0.4% by the late 1990s

and, as a consequence of low investment, the total length of roads rose at a slower pace and contributed to increased congestion as the level of car usage increased over the period (IFS, 2002).

In the early 1990s, the perceived need for the PFI procurement policy came from a variety of political and economic factors. First, in 1992, the UK government faced fiscal restrictions both because of the recession that the economy was experiencing, and also due to new criteria with which compliance was necessary in order to join the European Monetary Union. The rules for joining the European Monetary Union stated that the general government deficit should be no more than 3% of GDP and total gross government debt should be no greater than 60% (Heald, 1997). The PFI model had the advantage that the accounting rules at the time allowed the asset and funding arrangements to be off the balance sheet (Broadbent and Laughlin, 1999).

The spending controls that had been put in place during the 1980s and 1990s by the Conservative Government were criticised by the incoming New Labour Government that came to power in 1997. It was argued that the spending limits had created perverse incentives for departments to under-invest in capital spending (IFS, 2009). Moreover, the rule that designated budgets had to be used within a particular year had often led to rushed year-end spending. Also, spending was not always split between capital spending and current spending, and therefore, New Labour argued that, if the budget was tight in a fiscal year, decision-makers would be tempted simply to cut back on capital spending, which would be less noticeable to the public rather than cutting back on current expenditure, such as wages, which could prove more controversial and unpopular (IFS, 2009).

Although it is not clear what the consequences of the fall in investment in infrastructure were, it became a cause for increasing concern from the 1990s (IFS, 2009). The UK Treasury Spending Review in 2000, which set out spending between 2001 and 2004, highlighted areas where there was a backlog on maintenance work that needed attention. As an example, the review estimated the backlog of work on road maintenance came to £6 billion and the backlog of investment into laboratories and equipment amounted to £1billion. There had also been criticism in academic literature around the significant cuts in infrastructure investment in the last quarter of the twentieth century. The IFS (2001 p. 1) expressed concern that the Conservative government between 1979 and 1997 had made spending cuts that were too deep: ‘the risk is that such short-term political pressures may produce public investment that is below

the optimal long-term level.' One of the concerns over low investment in infrastructure was that the quality of infrastructure was related to standards of living in a country (Heald, 1997). A long period of under-investment would lead to a fall in the quality of public services to which the general public have access and would also increase inequality in society. Comparisons with other developed nations showed that the UK was investing significantly less into infrastructure (OECD, 2015).

Much of macroeconomic literature highlights the importance of infrastructure to economic growth and there has been significant criticism of the cuts in investment. The LSE Growth Commission (2013) described infrastructure as 'essential inputs in economic growth' and 'complementary to other forms of investment'. The World Economic Forum on global competitiveness (2012) suggested infrastructure helps 'integrating national markets and connecting it at low cost to markets in other countries and regions', by aiding the movement of workers, making transporting goods and services easier, and supporting the free flow of information. The Civil Engineering Contractors Association (CECA) report (2013) calculated that in Britain, '£1 billion of infrastructure investment leads to £2.842 billion of economic activity'. The Growth Commission report suggested that heavy investment in the nineteenth century underpinned the British industrial revolution and played a key role in developing the most advanced economy in the world. Since the 1870s, the UK had struggled to maintain this position in relation to other countries such as Germany, France, and the USA and one of the reasons suggested was that the UK had not been as effective in producing the necessary infrastructure to support the economy. The UK was ranked 24th in the world for quality of infrastructure in the 2012 World Economic Forum report. The CECA report (2013) claimed that if the quality of British infrastructure was the same as other leading global economies, GDP would have been 5% higher between 2000 and 2010.

It has been considered one of the main reasons why public-private partnerships, and therefore PFIs, were adopted as a procurement tool to renew infrastructure from the late 1990s. As the Institute of Fiscal Studies (2002), Broadbent and Laughlin (2002) and the NAO (2009) highlight, the UK General Accepted Accounting Practice allowed spending from the public sector on PFIs to be 'off the balance sheet' because liabilities are only included in public sector net debt if the risk and reward lies with the public sector. As the private sector would be responsible for the design and construction of the building under PFI projects, capital expenditure would not be included as part of National Accounts. Furthermore, PFI credits

provided by central government to local government to fund projects were not placed on the balance sheet as liabilities. Since it would not need to be recorded, government spending and public sector net debt would appear lower. This would make it easier for the government to borrow from the financial markets and stay within the limits of fiscal rules imposed by the European Union and the Treasury, whilst investing in a large programme of new infrastructure in a number of sectors.

2.4. Conclusions

The present UK procurement policy for infrastructure has developed from an intellectual movement in favour of public-private partnerships and through necessity, as the UK government faced an economy that experienced lower growth after the 1970s combined with higher expectations and changing needs from the public. These new circumstances meant that the government had to move away from the traditional procurement approach that it had adopted in the post-war economic boom period and needed to be more creative in funding infrastructure improvements with less reliance on increasing taxes or borrowing from the market. Introducing the private sector into the financing and provision of services appeared to provide a ready solution and way forward.

3. Private Finance Initiative contracts

3.1. Introduction

This thesis now focuses on the PFI procurement policy, which became one of the main tools for purchasing infrastructure between 1992 and 2018. The chapter defines what the PFI procurement policy was. It also examines the policy's controversies, governmental changes to improve it, and the reasons for its eventual formal abandonment by the UK government in 2018.

3.2. Definition of PFI procurement

Private Finance Initiative contracts fall within the category of public-private partnerships. PFIs are a form of public-private partnership because ownership and risks are shared. As mentioned earlier, the public sector and private sector co-produce services and share the costs and benefits of such infrastructure projects. This definition applies to small and large projects and can include a whole range of services. What makes PFIs distinct from other public-private partnerships is that they are only used in large infrastructure projects and when it is necessary to build a new facility that did not exist before.

Opinions differ as to what makes PFIs different from other infrastructure PPP projects. The NAO (2009) define PFI's key technical characteristics as long-term service contracts of between 25-30 years, where the private sector enters into an agreement with the public sector via a special purpose vehicle, a project company which includes funders, contract companies and the public sector involved in delivering the project. The public sector then pays a unitary charge throughout the period of service. The private sector is responsible for the facilities management of the asset. Facilities management is defined as 'A profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology' (IFMA, 2019). Facilities management services are split into two groups: hard services and soft services. Hard services involve the maintenance of the physical building which comprise the fabric and building systems (IFMA, 2019). Examples of hard services are air conditioning maintenance, decoration and painting, fire safety system maintenance, plumbing and drainage. Soft services are defined as services that are non-

essential and can be taken out of the building, such as cleaning, catering and security (IFMA 2019). Both hard and soft services are normally bundled together under PFI contracts.

Grimsey and Lewis (2004) argue that a PFI contract is an innovation based on a Design, Build, Finance, Operate (DBFO) contract. It is a services contract where the service outcomes and performance standards are specified. Yescombe (2007) suggested that what has made PFI contracts different from other forms of public-private partnerships is the division of risk. Several risks can potentially be assigned to either the public or the private sector. These include construction risk at the design and build phase. The private sector is usually responsible for the design and construction of the facility under public-private partnerships and therefore faces the risk of cost overruns and completion delays. The 'whole-life' costing approach to buildings in long-term PPP contracts means operation and maintenance costs are transferred to the special purpose vehicle. Under traditional procurement, this risk would be entirely managed by the public sector. Another risk that needs to be managed during the operational period is 'usage risk'. This risk arises from the facility not being used enough by the public to make a profit. Under the PFI model, this risk can be taken on by either the public sector or the private sector. However, usage risk is a very large risk for the private sector to take on and therefore it tends to be retained by the public sector. Availability and performance risks of the asset are usually transferred to the private sector under PPP contracts, including PFI contracts. How far these risks can realistically be transferred to the private sector may vary in practice, and will depend on which guarantees the public sector chooses to offer under different contracts and the central government policies put in place over the duration of the contract.

From the range of projects that fall into the category of PFI, such contracts are different from other procurement methods in four ways. First of all, soft services and hard services are likely to be bundled together, which gives the private sector partner full responsibility for the operation and maintenance of the building. This means that the public sector client only has one supplier to negotiate with over thirty years on a wide range of services. Second, the Private Finance Initiative contract is written as a service contract, and therefore it assumes that the private sector provider has ownership over the building and that the public sector is a customer buying services produced by the company on behalf of the public. This leads to a third distinct feature of the PFI model, in that the payment structure over a thirty-year period is set in advance, so the public sector client can make budgetary plans with certainty over future costs. Finally, some processes and controls are specific to Private Finance Initiative contracts. The

development of the business case and the accounting rules with which PFI contracts need to comply affects the use of PFI as a procurement tool. The tendering process of the contract has to be managed through the process of 'competitive dialogue' (HM Treasury, 2010), a procedure developed by the European Commission in 2004.

This thesis focuses on the debate over the operational performance of the Private Finance Initiative (PFI) contract in infrastructure. From the 1990s, PFI contracts were used primarily as a procurement tool for new infrastructure in the UK. The tool became very controversial because of the perceived outcomes of infrastructure projects which stoked debate in the country over how much private sector involvement was desirable in delivering public services.

3.2.1 Standardisation of PFI contracts: government guidance to protect the public sector's interests in operational PFI contracts

The government had to create guidance and regulation for this new form of procurement, but in the late 1990s there was very little experience amongst public sector staff on how to create, tender, and operate a PFI contract.

In the late 1990s, when PFI infrastructure projects were in their infancy and few were operational, the UK government decided to seek to standardise PFI contracts for the following reasons: it would reduce the costs of an operational PFI contract, as the public sector client would foresee any circumstance and then reduce the time of the tendering process with the preferred bidder as they would know what was wanted and what issues to negotiate on (HM Treasury, 2004). The pamphlet 'Basic Contractual Terms' (HM Treasury, 1996) specifically covered such issues that needed to be considered when drafting a PFI contract.

The Bates Review in 1997 (Allen, 2001) investigated in further depth how public sector agencies should approach contract monitoring and change mechanisms within PFI contracts. In 1999, the Treasury taskforce published guidance to public sector agencies on how to achieve objectives based on the Bates Review (Allen, 2001). It suggested that a model set of PFI contract terms should be developed as a starting point for all projects, so public sector agencies would be able to ensure the accountability of PFI providers during the operational period. It was also argued that the public sector could develop its capabilities in negotiating and

managing PFI contracts with the help of a library of templates. This was to reduce the level of unpredictability that could arise in very long contracts (Allen, 2001). The Standardisation of Public Contracts (SoPC) version 3 (HM Treasury, 2004) captured some of the lessons learned from operational PFI contracts and provided more advice on how to improve value-for-money in such projects. There was also a significant focus on how to monitor PFI contractors and their sub-contractors. Additionally, it was suggested that penalties should be included for sub-standard performance and that benchmarking should be undertaken to check the prices that contractors were charging.

Reviews from academic literature and central government on the performance of PFI contracts suggested that the tendering process took too long, and that this increased the costs of the whole project (HM Treasury, 2009). Therefore, the SoPC version 4 (2007) suggested that the tendering process should be completed within eighteen months. Also, increasing concerns regarding the cost of PFI projects from public sector agencies led to more focus on how market prices for services might be achieved in a contract where only one supplier was allowed. SoPC version 4 (HM Treasury 2007) made further recommendations on how to achieve value-for-money in an operational PFI contract, manage poor performance and provide incentives for good performance. It was suggested in greater detail that the payment mechanisms during the operational period should have the following characteristics clearly defined in the contract:

- availability and performance standards (i.e. how demanding the requirements are);
- response and rectification periods (i.e. how quickly problems have to be addressed);
- the scope (in practical terms and under the contract) for the Contractor to provide (temporary) alternative services/locations instead of having deductions applied, giving them greater flexibility to avoid deductions, or for allowing 'unavailable' facilities to continue to be used;
- levels/weightings of deductions for unavailability or poor performance;
- ratchet mechanisms for repeated or widespread failures; and
- caps on performance deductions.

(HM Treasury, 2007 p. 54)

The same paper noted that this was not necessarily an exhaustive list of what could be used, and that different mechanisms might be required for different projects (HM Treasury, 2007).

SoPC version 4 (2007) also focused on the availability of the service and performance management to improve the link between the price paid and services received. It argued that what was meant by 'good standards' should be clearly defined in terms of outputs rather than inputs. It also suggested defining what was meant by the availability and unavailability of a service and providing incentives to maintain availability through payment deductions for lack of availability. Furthermore, it was suggested weighting deductions according to how critical the area of service was. For instance, services relating to Accident and Emergency in hospitals would be critical to users, so unavailability of any such service that the PFI contractor provided should be met with a substantial deduction. The document also discussed the period which should be allowed to rectify poor performance. In terms of managing performance, the guidance suggested that, 'to encourage innovation and optimise risk transfer, the contract should specify the required performance level through output requirements' and argued 'the performance regime will form a key element of the risk-transfer mechanism' (HM Treasury, 2007).

SoPC version 4 (2007) has a section dedicated to testing the operational costs. It suggested that market testing and benchmarking should be used to test for value for money for soft services provided. They argued that market-testing:

'means the re–tendering by the Contractor of a relevant Service to ascertain the market price of that Service… Any increase or decrease in the cost of such Service, following market testing, should be reflected by an adjustment in the price charged to the Authority'
(HM Treasury, 2007 p. 109).

Benchmarking is a process where the contractor or its sub-contractors compare their price to the market to prove their prices are competitive. If the prices are not competitive there should be a price adjustment. This approach, it was argued, would be best used in conjunction with market testing and should take place before moving to market testing every few years. For instance, if the price that the public sector was paying was above the market price, the public sector client should be compensated. However, if the price was below that of the market, then the price should be adjusted upward as the contract continued.

The SoPC version 4 (HM Treasury, 2007 p. 55) provides an example of how poor performance could be managed:

'Units should be provided where appropriate – for example, a requirement for maintenance to be performed, together with a deduction of £10 for service failure, requires a clear linkage in terms of how many poorly maintained rooms, over what period, attract a single deduction of £10.'

As PFI contracts were a relatively new form of procurement, most local councils did not have experience in writing contracts of such scope and so guidance was very much needed. The government argued that standardisation would improve the outcomes of PFI contracts. It was also meant to reduce costs of PFI projects and to help public sector agencies, with varying experience and capabilities in PFI contract management, to understand what best practice in procurement might look like, and make large contracts easier to manage (HM Treasury, 2007).

3.2.2 Statistics on PFI contracts across industries

The number of PFI projects increased significantly under New Labour and by 2012, there were over 700 operating projects, variously delivering health, education, transport, waste management, leisure centres, housing and defence equipment and accommodation. This was partly due to the availability of PFI credits from central government, which meant local councils could procure and benefit from the services provided by the new facilities for up to thirty years without having to expect to invest further and commit additional local financial resources. By 2018, the present capital value of PFI contracts was £57 billion (HM Treasury, 2018). The Department of Health and the Department of Education undertook more PFI projects than any other government departments, with 173 Department of Education projects operational between 1997 and 2018 (HM Treasury, 2018). The use of PFIs was more widespread in England and Scotland than in Wales or Northern Ireland. However, the number of PFI projects slowed after the worldwide financial crisis and recession that started in 2008, as PFI credits became less available from central government (HM Treasury, 2012). Under the coalition government at Westminster, which came to office in 2010, there was greater scrutiny of the costs and benefits of PFI as a procurement tool. In some contrast, the Scottish government chose to stop using PFI contracts as a form of procurement in 2011 because of

their unpopularity (www.legislation.gov.uk 2011). The combination of such factors led to a general slowing down in the use of the PFI procurement from 2008 onwards.

A number of government reports and academic studies have presented evidence to support the argument that PFI procurement is generally expensive and provides poor value-for-money. Furthermore, increasingly, public opinion turned significantly against the use of PFIs, particularly given high profile scandals such as the London Metronet Rail project (NAO, 2009). Unreliable accounting standards, weak governance structures, and the perceived lack of accountability of private sector suppliers meant that the latter were increasingly perceived as taking advantage of their public sector clients (Broadbent and Laughlin, 2002; Pollock, 2008; NAO, 2011; HM Treasury, 2012; HM Treasury, 2018).

3.3. The developing debate of the effectiveness of PFI contracts

As the use of PFI has progressed, the approach with regards to risk transfer has developed and changed over time. The government's approach to risk in PFI projects has not sought to transfer risks to the private sector as an end in itself. Where risks have been transferred, it has been to create the correct disciplines and incentives for the private sector to achieve better outcomes. Rather, the government sought to emphasise what the contract design of PFIs could bring to a project that a purely public-funded procurement approach could not. The House of Commons Public Accounts Committee (2003) summarised the benefits that the government had identified in this respect by arguing that throughout the lifecycle of the contract, the private sector would likely be more capable in terms of innovation in design, construction, maintenance, and operation. It has generally been assumed that the private sector manages risk better in projects and because of this, PFI contracts were assumed to result in better services, better value-for-money, and efficiency savings through synergies between design and operation. This in turn would improve long-term maintenance and operating costs by investment in the quality of the asset. Therefore, the argument for using PFI contracts would not depend simply on whether it delivered the least-cost alternative. Instead, the emphasis would be on maximising value-for-money as defined by the preceding criteria, even if PFI projects were more expensive than publicly-funded projects. As such, the PFI was viewed as ‘a means of harnessing the private sector’s management skills and commercial expertise, to bring discipline to the delivery of public infrastructure’ (HM Treasury, 2012).

The NAO (2008) also argued that the justification for taking a long-term contractual approach was based on what were believed to be two main advantages. First, the public sector would know in advance the whole-life costing of the asset because of the transparency in pricing. Therefore, unexpected maintenance was less likely to be incurred because provision for it was already included in the budget. Secondly, the private sector would be required to implement a detailed approach to maintaining the asset in good condition throughout the contract or face a penalty if performance was not up to the agreed standard. Furthermore, as indicated, a feature of PFI contracts has been that soft services are bundled with hard services into the contract, where the PFI contractor would be responsible for all the services being delivered. The reason for this was to allow the private sector to be fully in control of the maintenance of the asset. This would thus allow the private sector to plan their approach to maintenance in advance and to work to a strategy to meet the contract specifications. The NAO report (2008) explained that another advantage of using Private Finance Initiatives was that it would allow government departments to invest in more capital projects because costs were spread over time.

3.3.1 Controversies over the financing of PFI projects

The public image of PFI projects has suffered over the last decade because of increasing criticism from practitioners and academics. Several concerns have arisen from features of PFI contract design.

Not only were PFI contracts off the balance sheet, the cost structure of PFI contracts also gave the government greater flexibility in financing infrastructure projects because it allowed the costs of construction of the asset to be paid over a thirty-year period, rather than upfront. This meant the government did not have to borrow as much in the short term to improve infrastructure. Chancellor of the Exchequer, Norman Lamont, stated in his 1992 Autumn Budget that PFI represented good value-for-money because the public sector could enter into operating lease agreements with no need for capital spending. After all, only lease expenditure is accounted for (Allen, 2001). The Private Finance Initiative was a departure from the Ryrie rules as it allowed private finance to become an additional stratum to public finance. During the 1980s the government significantly under-invested in new infrastructure and therefore the

Major government, in the early 1990s, was looking for a way to reduce the costs of procurement (Broadbent and Laughlin, 1999).

However, the National Audit Office (2009) expressed concerns that accounting rules had been influenced by political motives and through lobbying by stakeholders. The Treasury adopted accounting rules that allowed assets that were not under public sector management to be left off the public sector balance sheet. Private Finance Initiative contracts would be written as service contracts rather than as assets financed with leases. As the private sector would be responsible for designing, building, operating, and financing PFI projects for up to thirty years, most of the costs of the infrastructure would not appear on balance sheets. This occurred even though, in all PFI contracts, the public sector would pay an annual fee for use of the assets. This allowed the public sector borrowing requirement (PSBR) to appear smaller and would therefore make it easier to raise funds from the financial markets (Broadbent and Laughlin, 2002).

Broadbent and Laughlin (2002) discussed the tensions between the UK government and the Accounting Standards Board (ASB) over the use of Financial Reporting Standard 5 (FRS5) in the late 1990s. The main disagreement was over the nature of a PFI contract. The Treasury saw such contracts purely as service contracts, in which services were being procured over periods of thirty-years. The ASB, instead, saw them as a form of purchase of an asset. This disagreement had significant implications for whether the infrastructure project stayed on or off the balance sheet. The FRS5 accounting rules did not require pure service contracts to be included on balance sheets. Therefore, the Treasury took the view that, if PFI contracts were not leases in substance, then FRS5 rules did not apply. However, the ASB argued that PFI contracts could not be separated into either entirely service or property elements. Evidence shown by Broadbent and Laughlin (2002) suggested a large number of accounting bodies did not entirely agree the appropriateness of the Treasury's position and felt that there needed to be some reconciliation between the two approaches. There was concern that the Treasury approach did not reflect the risk of possible long-term failure in some PFI projects. It was considered that there needed to be a category reflecting this potential risk, as it left insurance firms exposed. However, counterarguments from private sector companies and business trade associations, such as the Confederation of Business Industry, suggested that benefits and costs of a project would become clear throughout the period of development and therefore the risk should not be seen as of great concern.

Hodges and Mellett (2012) analysed the change in attitude towards accounting rules of Exposure Drafts in 1997 and FRS5 in 1998, as suggested by the ASB. From interviews undertaken with the ASB, it was understood that the motive for ignoring FRS5 rules and leaving PFI assets off the balance sheet was largely political. However, the ASB continued to argue that assets could indeed be separated from services. Hodges and Mellett (2012) claim that the ASB also faced pressure from media coverage to comply with the Treasury view of PFI accounting. Because of inconsistencies in accounting rules, there were several cases where PFI assets were on both the private sector and public sector balance sheets, some cases where they were on neither, and cases where some assets were on one and some on the other balance sheet. Distrust and criticism of the use of FRS5 rules resulted in their being dropped in favour of new International Financial Reporting Standards accounting rules as adopted by the Government in 2009 (House of Commons Scrutiny Unit, 2009).

There was also criticism of the concepts underpinning the arguments for PFI contracts. The Government has claimed that PFI contracts could bring greater value-for-money (VFM). However, Heald (2003) argued that the definition of VFM was usually imprecise and it was suggested that the definition changed with the political agenda. Local authorities that wanted to build new infrastructure needed to develop a business case for using PFI contracts. The business case study needed to prove that using PFI would be cheaper than using traditional procurement (the public sector comparator) and better than the option of 'doing nothing', also known as the 'fall-back position'. As a result of various pressures to use PFI contracts as a procurement tool, many business cases have subsequently been adjudged poor and politically motivated rather than objectively demonstrating value-for-money (NAO, 2009).

Heald (2003) argued that the concept of VFM was also unclear as there were many stakeholders in PFI projects, leading to questions as to whom VFM applied. Possibly PFIs could represent value for money for the local authority, but not for central government. The local authorities would receive PFI credits if they choose the PFI procurement route, enabling them to build and use infrastructure assets at the expense of central government. Heald (2003) had also argued that value-for-money should take into account the size of total risk. It could not be claimed that PFI contracts reduced total risk if they simply shifted risk to different stakeholders. Neither was it clear if risk was truly being shifted to the private sector, since the Government would be acting as guarantor on PFI contracts.

Furthermore, there have been criticisms about the funding and the cost structure of PFI projects, with many arguing that PFI made such projects significantly more expensive. PFI projects would be jointly funded by the private sector and the public sector. Under Design-Build-Finance-Operate (DBFO) schemes, the private sector would borrow the finance to construct the asset and the public sector would pay back for the construction over a thirty-year period with a unitary charge payment. Part of the unitary charge would be the payment for operating and maintaining the building, for which the private sector was responsible for up to thirty years. Accounting literature suggested that the private funding of PFI projects inevitably made it more expensive than infrastructure that was fully funded by the public sector. The Government could borrow money at significantly lower rates, perhaps at around 4% on average, from the financial markets whilst the private sector could borrow at an average of 8% (Hellowell and Pollock, 2011). This also made the expense of PFI projects more vulnerable to changes in the state of financial markets. For example, the financial crisis of 2008, and the onset of world-wide recession, meant it became much more difficult for the Government and the private sector to borrow, and financial institutions would only lend at much higher rates. This increased the cost of PFI projects by between £500 million to £1 billion (NAO, 2011).

Supporters of PFI procurement argued that PFI was not allocated on the basis of being the cheapest form of procurement; but instead, the criterion that should matter was whether it represented value-for-money (Grout 1997). Kay (1993), however, argued that the criticism that PFI projects were more expensive than traditionally procured projects because of the higher interest rates charged to the private sector, was not a reason to avoid private sector funding of infrastructure projects. This was because credit risk would be unrelated to project risk. The overall project risk would change according to who was responsible for the variety of risks during the operational period. Greater incentives for the provider to manage the facility more efficiently would reduce the overall risk and cost of the project.

Proponents of PFI contracts would argue that the private sector had a much greater incentive to manage facilities efficiently than the public sector, which would be less accountable to stakeholders. Introducing private capital would have an impact on the company's incentive to manage the facility efficiently and also affect the allocation of risk between the public and private sectors. Therefore, PFI projects might reasonably be expected to be more expensive than traditionally procured projects. The HM Treasury report (2018) stated that government

departments had significant outstanding commitments from PFI projects. It was also emphasised that PFI cost reductions would be difficult to achieve.

3.3.2 Controversies over contract management in PFI contracts

Other distinct features of PFI contracts that have been discussed in the academic literature concern the bundling of all services into one contract to be provided by only one supplier, the length of the contract and the incompleteness of the contract. Under traditional procurement methods, where infrastructure projects are fully funded by the public sector, the procuring authority pays for maintenance and services as they arise. For services such as cleaning and catering, they can either directly employ staff to provide them or outsource these services to a private company on short-term contracts. The HM Treasury report (2012) argued that an advantage of this approach was that it allowed the procurement authority to have greater control over how much they wanted to spend. If a hospital or a school were facing a tighter budget, they could choose to cut their spending on soft services to stay within budget.

As PFI contracts were designed to bundle hard and soft services together, only one provider could supply all the services, from minor repairs, catering and security, to major structural changes and general maintenance of the entire asset over the thirty-year period and there could be no alternate choice of supplier. These agreements would be made at the beginning of the contract and ongoing negotiation could be undertaken during the operational period of the contract. The reason for bundling services was to increase synergies when managing the asset and to incentivise the private sector to reduce costs over the life cycle of the asset (House of Common Committee of Public Accounts, 2003). Also, before the start of the contract, the procuring organisation was expected to specify the handover requirements of the asset once it came back into public ownership at the end of the contract.

Concerns were also expressed that PFI projects were not ‘flexible in operational and budgetary terms’ (HM Treasury, 2012). As the public sector was committed to long-term PFI contracts with the same supplier for up to thirty years, they would struggle to make efficiency savings when needed, whether by reducing spending or switching suppliers for soft services. This would be a particular problem when central government cut grant funding to local authorities during the life of a PFI contract. The cost of running an asset could also change, not only

because of external factors beyond the local authority's control, but also through changes in national government policy.

There were also concerns that the public sector would not be getting the best deal when the private sector undertook minor works, because of the denial of access to the market for alternative suppliers. In this respect, the NAO report (2008) concluded that small works in PFI projects were significantly more expensive than equivalent sector benchmarks. As an example, the report gathered evidence on expenditure on replacing electrical sockets, with the Royal Institute of Chartered Surveyors believing that replacement sockets should cost between £51 and £103, depending on where the socket was being positioned. However, in practice, prices in hospitals under PFI contracts were ranging from £30 to £300 and were, on average, 54 percent higher than expected market prices. In central government the belief was that this reflected the lack of competition and that the public sector was unduly vulnerable to 'hold-up': the private sector being able to derive more rents from contracts because of their significantly greater power when renegotiating during long-term contracts. According to an NAO report (2008), there would be few circumstances where the public sector would not pay a fair price after negotiating in a competitive private sector market. For instance, if the public sector was time-constrained and needed to make a repair quickly, it would be difficult to be able to 'shop around' and identify the most cost-effective option. In a later NAO report (2018) it was suggested that value testing clauses such as benchmarking and market testing could cause both price increases and decreases for the public sector through competitive processes. The report also emphasised the importance of the public sector collecting data on prices, and so being better placed to understand what represented reasonable and to be able to negotiate with the private sector, although it was recognised that this would be time-consuming and therefore costly for the public sector.

From government evidence (HM Treasury, 2012), some practitioners regarded PFI contracts as producing better outcomes for some products/services than for others because of the relationship between the nature of the product and the completeness of contracts. No contracts would be entirely complete under any form of procurement. However, PFI contracts tended to be more incomplete than traditional procurement because of the wide range of services included and the unpredictable nature of certain services. More complex products/services could change more frequently through external factors or because of the technology involved. This might include activities such as waste plants, street lighting, and hospitals, but would not

necessarily include schools, where technology was involved to a lesser extent. Complex services might require more renegotiation as external factors potentially created greater changes and made the contracts more difficult to manage (Hart, 2003; HM Treasury, 2012). An HM Treasury report (2018) discussed such problems and those calling for special capabilities and expertise. As PFI contract would last for up to thirty years, those negotiating and then managing them would eventually move on, resulting in a loss of expertise. Moreover, government departments were paying considerable amounts of money for external consultants to seek savings, which were rarely easily achieved in practice.

In 2010, the coalition government undertook a revision of the structuring of PFI contracts leading to the introduction of an amended form of the procurement policy called 'PF2' contracts in the Autumn Budget of 2012. Thereafter, opinions shifted over the benefits and costs of bundling services because of doubts about the advantages of relational contracting and risk transfer to the private sector. Indeed, more generally, the Coalition government became more in favour of greater competition and flexibility in PF2 contract design.

3.3.3 Government policy changes to the contract design of PFIs

A key difference between PF2 and the previous model concerned the unbundling of services. Under the old model, the company which delivered services was responsible for building the asset and operating it by providing both hard and soft services. Under the new PF2 contract, however, as set out in the HM Treasury report in 2012, new features were added to empower the public authorities in negotiations with the private sector and to improve the flexibility of the contract, including allowing adaptations with different budgets over time. The new form of PFI contracts would continue to allow the private sector partner to provide hard services, including planned, reactive and statutory maintenance, and energy management of the whole asset. The PF2 contract would also include a central system to manage requests and monitor performance and lifecycle renewal, involving maintaining the efficiency and appearance of the building.

Soft services, management services, and ICT services were taken out of the contract. For these, the procuring authority would issue short term contracts for tender when necessary, so as to ensure they could have more control over their budget spending. Procurement authorities could

decide if they wanted to keep some services in the PFI contract or open them up for tender. They had to decide whether integrating such services could lead to gains from relational contracting and synergies or if there could be greater benefit from competition in the procurement process. Guidance was issued on review processes to ensure that the procuring authority evaluated whether they ought to continue allowing the contractor to provide elective services or seek another supplier on an annual basis. There were also changes in specifications that the public sector needed to follow when the asset was handed over. This did not allow for priorities and requirements to change over time. By 2017, there were 715 PFI and PF2 projects across the United Kingdom (HM Treasury, 2018). However, in 2018 the UK government announced that it would no longer use the PF2 model (HM Treasury, 2018). The then Chancellor of the Exchequer, Philip Hammond, terminated the use of the procurement method because the deals were considered not to represent value-for-money. However, he stated that the Government would establish a centre of excellence to actively manage these contracts in the taxpayers' interests.' He indicated that the Government was still 'committed to the use of public-private partnerships where it delivers value for the taxpayer and 'genuinely transferred risk to the private sector' (BBC, 2018).

3.4. Conclusions

This chapter has defined and discussed the development of Private Finance Initiatives and their subsequent demise after PF2. It has also outlined the academic and wider public debate around PFIs as a procurement method. The 1980s experiment with private sector involvement in public sector services led to the adoption of PFI contracts to build and operate infrastructure in the 1990s. Its advantages were perceived to be that it would be easier to raise funds to produce buildings and other fixed assets, and that the private sector would bring their expertise to operate buildings to a high standard. Until 2010, PFI contracts were the main tool for delivering thousands of new buildings across many sectors. Guidance from central government was provided to public sector organisations using PFI as a tool to deliver such infrastructure projects and to support PFI as an effective procurement method.

Despite the advocacy of such guidance, after 2000, concerns grew over the performance of PFI projects and whether they did indeed represent value-for-money. PFI contracts were controversial because of the involvement of the private sector and the large costs of the projects

in comparison to traditionally procured buildings, because they were not included on the government balance sheet, and because of the lack of evidence of risk clearly being transferred to the private sector. There was also criticism from public sector practitioners that the contracts were proving difficult to manage because the contract design bundled many services together, and without access to the market for up to thirty years. Many argued that this was leading to opportunism by the private sector, about which public sector procurers could do little, and that the suggested benefits of PFI contracts had not been realised. As a result, there were increasing calls for more public sector procurement to follow the traditional approach and use less of the private sector. After 2010, and in light of performance questions and negative public opinion, the new government chose first to change the contract design of PFI projects, and then, in 2018, to end the use of PFI and PF2 contracts altogether. In the next chapter, we will explore relevant theoretical contract models to provide insights into the issues around PFI procurement.

4. Theory and evidence on contract design

4.1. Introduction

This chapter focuses on theory and evidence on the operational performance of PFI contracts. The features of PFI contract design are distinct from other forms of procurement contract and they have caused controversy. The chapter reviews and summarises the theoretical considerations that arise in the management of long-term contracts of the kind used for operating both PFI and non-PFI relationships. Theories analysing contracts that are covered in this chapter are incomplete contract theory, game theory, asymmetric information and relational contracting.

4.2. Theory of contract design

In order to understand the operation of PFI contracts we first consider the theory, examining what contractual features are important, how contracts operate, what factors influence outcomes, and what potential solutions could resolve contractual issues.

4.2.1 The development of contract theory

The theory of complete and incomplete contracts seeks to understand the nature of typical problems with exchanging goods and services for money and to develop potential solutions for buyers and sellers. The role of contracts is to set out the obligations between the buyer and the seller, which include the product/service to be produced, the incentive/ constraints sellers face in honouring the contract, and the parameters under which renegotiation may take place in the event of a change of circumstances.

Until the 1940s, economic theory only formally analysed very basic exchange activities such as the barter of two different commodities between two individuals at a given place at a given time, with no uncertainty and no asymmetric information. This was represented in the 'Edgeworth box' (Edgeworth, 1881), which assumed both parties perfectly understood their own preferences, knew all the options available to them, and that all situations had been taken into account along the 'contract curve'. In this scenario, there would be no other party that

could influence the negotiation process. Bolton and Dewatripont (2005) have argued that this viewpoint is useful in analysing simple lending, investment and futures contracts. However, subsequently contract theory has developed to analyse problems such as choice under uncertainty, the allocation and sharing of risk, private information and hidden actions, and incentive compatibility.

4.3. Behavioural predictions under various contract problems

The first seminal article on predicting outcomes from incomplete contracts was Coase's paper on the transaction cost theory of the firm (Coase, 1937). The Coasian theory of transaction costs is based on two main behavioural assumptions: first that all parties are rational and therefore will behave logically to achieve their objectives; and secondly, that all parties involved are only driven by financial incentives, and no other objective influences their decision making. In a market, where buyers and sellers meet to exchange goods and services for money, the buyer does not know whether the product or service will meet their expected standards in the future, since this is hard to anticipate. The best that buyers and sellers can do to reduce this problem is to write an incomplete contract, to provide some guarantees under particular circumstances (Bolton and Dewatripont, 2005). Not all potential situations can be predicted before the signing of the contract; therefore, the contract is incomplete, and the two parties will have to resolve matters as they arise. The theory suggests that, as time passes and uncertainty is resolved, the parties will renegotiate their contract to generate an *ex-post* efficient outcome, meaning an outcome that fulfils the desires of both parties. The theory assumes that, with no wealth constraints and with no private information, there will be voluntary bargaining between the parties, resulting in trade whenever it is 'efficient'. It is 'efficient' because there is perfect information and both parties can predict the outcomes from different decisions and therefore take the right actions to reach results that are desirable to them. It is also 'efficient' to exchange the good according to this theory whenever the buyer's valuation exceeds the seller's costs (Coase, 1937). This means an ex-post efficient outcome can always be reached in this circumstance (Coase, 1937). As a result of their renegotiation, each party shares some of the benefits of trading. This makes it worthwhile for both parties to stay in a commercial relationship. As trading is still possible in unexpected circumstances, the *ex-post* contract can still be considered complete.

However, the Coasian theory has come under attack for having unrealistic assumptions that do not reflect circumstances under which the buyer and seller have to negotiate (Bolton and Dewatripont, 2005). In the academic literature on contract theory, a number of reasons have been posited as to why, in practice, the efficacy of such complete contract theories may be limited. In such theories, there are only two parties involved and the theory ignores other potentially influential stakeholders such as contract enforcement authorities (Varian, 2010). Complete contract theory is particularly powerful when the parties have symmetric information. However, this is often an unrealistic assumption because it is unlikely that buyers will have full information on their suppliers, such as their production costs and consistency of their performance under various circumstances (Varian, 2010). Also, it is usual that parties face wealth constraints, which impose limits on the use of money and affect their decision-making, for instance, on the parties' willingness to pay for specific services (Varian, 2010). Complete contract theory fails to emphasise the importance of the enforcement mechanism. In practice, contracts are enforced by human beings and a court of law, all of which are subject to both adverse selection and moral hazard (which are concepts which will be discussed later). This means that contracts might not be enforced properly, because it requires effort. For example, enforcers might not put much effort into reading and understanding the detail of the case. Also, enforcers are vulnerable to adverse selection; that is, they might select the wrong action through being inexperienced or ill-informed. For example, they might not have the proper background to understand what the parties tell them or they might have their own preferences. (Zheng et al., 2008). Hence the literature has identified formidable problems that apply to operating contracts.

4.3.1 Theory of incomplete contracts under asymmetric information

Further foundations of incomplete contract theory started to develop in the latter half of the twentieth century, with particular focus on managing long-term dynamic contracts since the 1970s. Theories of incomplete contracts have been developed by several academics. Rather than assuming both parties are entirely rational and working with perfect information, such theories assume that both parties are more likely to be negotiating with incomplete information and working with 'bounded' rationality, making the best decisions with the information they have (Williamson, 1985). This led to a body of work known as *Transaction Cost Economics*,

which emphasises managing uncertainty in contracts by developing institutional design, so as to create an effective governance structure that guides both parties through uncertain situations.

In the academic literature on contract theory, three types of transaction costs lead to the foundation of incomplete contract models: First, transaction costs are generated by unforeseen contingencies, where parties cannot define *ex-ante* the contingencies that may occur later on. Therefore, they have to be content to sign a contract, such as an authority or ownership relationship, that does not explicitly mention those contingencies or, alternatively, sign no contract at all (Williamson, 1985; Poppo and Zenger, 2002). Secondly, the cost of writing contracts affects contract costs. Even if one could foresee all contingencies, they might be so numerous that it would be too costly to describe them in a contract (Hart and Moore, 1998). The third factor is the cost of enforcing contracts. Courts must understand the terms of the contract and verify the contracted upon contingencies and actions to enforce the contract (Deakin and Wilkinson, 1998).

Academic literature developing new approaches to understanding incomplete contracts has identified several problems for both the client and the supplier in such circumstances. Incomplete contracts are complicated, and there are many conceptual approaches to consider, with different theorists having offered various insights into their impacts. The Williamson approach (1985) showed that there are a number of exchange hazards that increase transaction costs and require safeguards. First, Williamson (1985) argued there is a need for more complex contracts when there is high asset specificity, that is, there have been high levels of investment into assets specific to the project. In such a case, both parties need to invest in physical and human assets specific to their relationship. Second, there could be a problem with measuring performance. Therefore, developing a contract with wide-ranging performance measures would make it more complex. Third, there is a concern about uncertainty which increases transaction costs. A high level of uncertainty could lead to asymmetric information which, in turn, could lead to one of the parties being exploited. Fourth, it may be impossible to create a range of prices covering any circumstance and therefore impossible to know how much procured services will cost by the end of the contract. Fifth, it is costly to enforce and monitor contracts once they have been agreed upon. Williamson (1985) observed that, in the light of these transaction costs, it would be difficult to reach an optimal solution in the way suggested by previous contract models such as Coasian theory. He argued there needed to be a

development of new processes and controls other than a written contract to safeguard against exchange hazards (Williamson, 1985; Poppo and Zenger, 2002).

Incomplete contracts are considered incomplete, not only because one or more of the parties are working with bounded rationality, but also because it would be impossible to write a contract that covered every possible situation that could happen during it, and therefore it will inevitably have gaps. Hart and Moore (1988) explain this problem:

'When drawing up a contract, it is often impracticable for the parties to specify all the relevant contingencies. In particular, they may be unable to describe the state of the world in enough detail that an outsider (the courts) could later verify which state has occurred, and so the contract will be incomplete.'

(Hart and Moore, 1988, p. 755)

Tirole (2009) argues that one way of measuring how much a contract is incomplete is by analysing how much it needs to be renegotiated.

'This paper defines contract incompleteness in the following way. A contract is more incomplete if fewer resources are expended to identify the appropriate design; equivalently, contract incompleteness is measured by the probability that the design specified in the contract needs to be altered ex post.'

(Tirole, 2009, p. 266)

Mansor and Rashid (2016) argue, on the basis of their literature review, that incomplete contracts can be categorised by examining whether the following features exist:

Table 2: Features of incomplete contracts

Characteristic	Description
The contract has gaps or loopholes (Gurcaylilar-Yenidogan, Yenidogan and Windspergerc, 2011; Hart, 1995)	i. The contract has missing provisions or complete absence of certain specifications. ii. The contract does not specify who has the right to decide or the decision actions for a certain contingency, or it only specifies who has the right to decide but does not specify the decisive actions to be taken. iii. The parties are aware of certain contingencies, but they are unable to specify it in the contract because the state of nature cannot be verified. iv. Certain contingencies are deliberately left out of contract with the intention to renegotiate later. Due to the above circumstances, the parties fail to provide for a term and leave a literal gap or a loophole.
The contract has vague or ambiguous clauses (Hart, 1995)	The clause or term used in the contract is not clear and creates room for different interpretations among the parties.
There is additional work and changes (Badenfelt, 2011)	Certain operations are not in the original contract or changes during the contract. Additional work and changes cause the parties to amend the contract.
The contract is renegotiated (Tirole, 2009)	i. Contracts are renegotiated when contractual provisions happen to be inadequate to deal with certain consequences. ii. An incomplete contract is a contract specifying the available design, which is renegotiated whenever this design turns out not to be appropriate. iii. Renegotiation in terms of scope of work or compensation. iv. Renegotiation because of changes that are required after contract execution.

Source: Mansor and Rashid, 2016, p. 94-95.

In contrast, a complete contract would not have the above characteristics. There would be no gaps or loopholes for either party to exploit. There would be no ambiguity in the wording of the contract and therefore no problems with interpretation. Also, the need to make changes and renegotiate the terms of the contract would not arise in complete contracts because there is perfect information and such circumstances would have been foreseen and thus agreement would have been reached before the contract started operating.

One problem predicted by contract theory that can occur in incomplete contracts is the potential for one party to 'hold up' the other in negotiations. The concept of 'hold up' was first discussed by Goldberg (1976) to describe one of a number of problems consumers may face when they are in a long-term contract with a supplier, who typically has a monopoly because of the contract. He argued that long-term contracts have inherent qualities 'which make long-term relationships between consumers and producers desirable and which further make it extremely difficult to determine at the outset the specific terms of that relationship'. Goldberg (1976) suggested that, once a consumer had entered into a relationship, suppliers were 'isolated to some degree from competition'. Therefore, the supplier could charge significantly higher prices as the consumer would have no option to seek an alternative supplier. Goldberg (1976) stressed both the importance of relational issues to protect consumers and supplier's interests in a long-term relationship and the need for regulatory bodies as a lack of regulation could make both buyers and sellers vulnerable in a complex long-term contract. These relational issues involve protecting the right to serve and to be served, and therefore reducing the risk of either party exiting a long-term agreement, which would be costly to both. Regulatory bodies have a role in ensuring that appropriate processes and controls are in place to protect both consumer and supplier. Goldberg (1976) argued that adaptations to the original agreement developed by neoclassical contract law models, also known as optimal solutions in microeconomic models, would not be sufficient to counteract potential threats.

Hart (2003) argued that in a long-term contract, 'hold up' could arise in negotiations from opportunistic behaviour by either party within the transaction. Theoretically, it would be possible for either side to 'hold up' the other in a long-term contract as they would be mutually dependent on each other, and it would be costly to exit the contract due to long-term relationship-specific investments (Hart, 2003). Hart (2003) developed two different models: the first, where the building and operating stage were separate, or in the usual terminology, 'unbundled'; the second being where the two stages are bundled together in a public–private

contract. The results from his models suggest that, under 'unbundled' contracts, the provider would make an optimum level of investment to meet the specifications of the building contract, but would do 'too little of the productive investment' that is relevant to the operating period. Thus, a building might meet the building specification, but be designed sub-optimally from the point-of-view of cleaning it. This is because the provider would not internalise either the social benefit or the operating cost of greater investment. Therefore, under unbundled contracts, there would be too little productive investment, but the right amount of unproductive benefit, so reducing the total cost and quality of the building and, therefore, meaning that the amount of unproductive investment would not be problematic.

In contrast, for 'bundled' contracts, the producer would make a more productive investment than in an unbundled contract because they would internalise the benefit from building features that reduce operating costs. However, they would still not invest the optimum amount because they would not gain from the benefit that others in society receive from the investment. Another consequence is that in a bundled contract the builder would make less productive investment (reducing total costs and quality) than in an unbundled contract, which would hurt society because of the lack of personal gain involved. Therefore Hart (2003) suggests that, if it is easy to specify the quality of the building but difficult to specify the service needed in the operational period, then an unbundled contract would be good. However, if it were easier to specify the services needed in the operational period but difficult to specify the quality of the building, then a bundled contract would be preferable. In the discussion of contractual issues for school services presented below these questions relating to difficulty of specification will play an important role.

4.3.2 Theories on governing incomplete contracts

As PFI contracts need to try to cope with significant uncertainty, they require a governance structure that will manage negotiations in unexpected circumstances. The academic literature has explored different types of governance that could be in place to manage uncertainty.

As noted, Williamson (1985) argued that complex contracts are ultimately incomplete and often do not adapt well to new circumstances. Williamson (1985, p.178) then went on to argue that what was needed to manage contracts that are 'incomplete or maladaptive' is a governance

structure: ‘specialised governance structures that have the purpose and effect of promoting harmonious adaptations and preserving the continuity of exchange relations in response to that condition’. Williamson (1985) also suggested that a knowledgeable arbitrator and reciprocal exposure of specialised assets could be effective instruments in such circumstances. Both Goldberg (1976) and Williamson (1985) have discussed the importance of contractual governance in long-term contracts. Goldberg (1976, p. 432) argued that initially agreed upon prices become irrelevant when the client and supplier have renegotiated in various unexpected circumstances. He observed: ‘the longer the anticipated relation and the more complexity and uncertainty entailed in that relation, the less significance will be placed on the price and quantity variables at the formation stage.’

Williamson (1985) distinguished four approaches to governing incomplete contracts, depending on the frequency of purchase and investment characteristics. First, market governance could be used in transactions for non-specific products/services to a general market. It would not matter whether the purchase was occasional or recurring. Under such circumstances, the supplier would have an incentive to provide a good service because customers could seek reviews about them from other customers, and therefore a reliable reputation matters. As Williamson (1985) has said, ‘such transactions take place under and benefit from a legal framework’. The content of the contract would be important in the sale of the good while the identities of the parties involved would be less important because of no ongoing formal relationship between any individual clients. The application of the law would be vital in protecting the consumer with litigation being used only to settle claims.

The second Williamson approach was trilateral governance. Trilateral governance involves third party assistance to resolve disputes between two parties involved in economic exchange. Williamson (1985) argued that this was a more effective course of governance when exchange was occasional, but the product the customer was buying much more customised. Given that specialised investments would have been made, the relation between the two parties would be more important. Market governance would be limited in this situation as it could only cope with claims and would not consider the relationship between the two parties. Furthermore, it would be too expensive to set up a governance structure for occasional transactions, as it would be too costly. Therefore, Williamson (1985) argued, an intermediate institutional arrangement was needed since a third-party could evaluate performance based on the past and decide whether such specific performance was necessary for continuing purposes.

The third choice was bilateral governance. Williamson (1985, p. 76) defined this as two parties having 'some way for declaring admissible dimensions for adjustment such that flexibility is provided under terms in which both parties have confidence.' Such an approach to governance would be best suited to recurring transactions for customised and idiosyncratic products/services. Williamson suggested that value lay in a continued trading relationship because of the 'non-standardised nature of the transactions'; human and physical capital being very specialised and economies of scale unlikely to be achieved. In such incomplete contracts, bilateral governance would provide 'admissible dimensions for adjustments' based on two acknowledgments: first, how 'opportunism varies with the type of adaptation', and secondly 'restricting adjustments to those where the hazards are least'. Williamson (1985) suggested that, under bilateral governance, the autonomy of the parties would still apply, and therefore relations could be operating in a market. The last choice is unified governance. Unified governance between two parties would occur when the assets were so specialised that they could not be transferable for another use. It would therefore be best to integrate vertically into single ownership, especially to realise economies of scale. In this case, the autonomy of the parties could not be present as they would be removed from the market (Williamson, 1985).

Both bilateral governance and unified governance fall under the category of 'relational contracting', which represent different types of processes for managing contracts other than explicit contracts. Therefore, these forms of governance would be more relevant in evaluating the usefulness of the current governance structure of PFI contracts and their comparison with non-PFI models.

4.3.3 Asymmetric information

There is a further dilemma upon which contract theory also offers insights. It could be argued that the public sector client and the private sector contractor have different goals, which need to be aligned. Yet the public sector client cannot monitor the contractor directly. The dilemma that public sector clients have with managing private sector contractors can be illuminated by principal-agent theory. Morgan, Katz and Rosen (2009) describe the principal-agent relationship as 'an economic relationship in which one party, the principal, hires a second party,

the agent, to perform some task on the first party's behalf. They argue that the principal-agent relationship has three important features:

'1. One side of an economic relationship, the agent, takes an action that affects the other side, the principal.
2. The principal cannot observe the action taken by the agent.
3. The principal and the agent disagree on which action is the best one for the agent to take.'

(Morgan, Katz and Rosen, 2009)

These features have the potential to cause a problem of moral hazard. Moral hazard occurs because there is a problem of hidden actions that the agent undertakes and that the principal in the market cannot see. The agent's hidden actions affect the principal. The problem arises because the principal and agent may disagree on what is the best action for the agent to take (Morgan, Katz and Rosen, 2009). By hiding its actions from the principal, the agent can take the 'wrong' action from the principal's point of view. In the case of school procurement, this could occur by committing fewer employees than are necessary to provide good quality soft services, or by using inferior supplies to produce meals or to clean a building. There is thus a problem of asymmetric information stemming from such implicit moral hazards that the principal ultimately has to manage. There is also the potential problem of adverse selection, which means that the agent conceals adverse information about themselves from the principal, and hence they might be miss-selected (Akerlof, 1970). The principal may thus select an inferior agent simply because they do not have all the necessary information to make an informed choice between alternative agents.

The literature on asymmetric information has suggested there are a number of control mechanisms that a principal might use to overcome the problems of moral hazard and adverse selection. First, these might include developing a governance structure to create incentives for doing a job well. If effort is not observable but performance is possible to assess in its place, the principal can adopt performance-related pay by including bonuses for good performance and deductions from payments for below standard performance. Accordingly, clear output specifications should be written into the contract, so that the parties know when they have been met and the contractor understands their obligations. A monitoring regime should also be put in place to reduce the asymmetry between the two parties. A monitoring system makes it harder for the agent to hide their actions and be opportunistic (Morgan, Katz and Rosen, 2009).

Public-private partnerships are typically characterised as being incomplete contracts because they are long-term and therefore the circumstances that can arise during the operational period cannot all be predicted. This means that the public sector client and their contractor will have to 'work things out' and negotiate throughout the contract. However, this is also complicated by the fact that there is very likely to be asymmetric information between the two parties. For example, the public sector may be less informed on costs of production, whilst the contractor may be less knowledgeable about how the political environment might impact upon the needs of their clients and the operation of the contract.

4.3.4 Game theory

Many researchers have also called on game theory to analyse how decisions are reached between buyers and sellers. Game theory (Von Neumann and Morgenstern, 1944; Nash, 1951) was developed to understand how outcomes are attained between parties with conflicts of interest. The apparatus can be used to undertake the 'general analysis of strategic interaction' (Varian, 2010).

The interaction is 'strategic' because each player has calculated their move, given their knowledge of outcomes and how they expect other players to move. In game theory, players are assumed to be rational and seeking to maximise their satisfaction, or utility, when making decisions. Under game theory, at least two players are engaging in an interaction that leads to 'payoffs' with each player seeking to maximise their payoff. It is assumed that all players have perfect knowledge of all outcomes and know that the other players have the same understanding. A typical two-person game is often represented by a matrix of potential outcomes, where the left number represents the outcome for player 1 and the right number represents the outcome for player 2:

Table 3: A one-off game with two players

		Player 2	
		Cooperate	**Cheat**
Player 1	**Cooperate**	5, 5	1, 10
	Cheat	10, 1	2, 2

If player 1 chooses to cooperate, their outcomes are either 5 or 1.
If player 1 chooses to cheat, their outcomes are either 10 or 2.

If player 2 chooses to cooperate, their outcomes are either 5 or 1.
If player 2 chooses to cheat their outcomes are either 10 or 2.

In this type of game, the players are making decisions simultaneously, with no knowledge of what the other player will do. But they have perfect knowledge of all the potential outcomes and are therefore able to calculate what the other player will do, based on the assumption that every player is purely self-interested and wants to maximise their own outcome, doing so in a rational manner. The players cannot trust each other to cooperate as there are no follow-up consequences if one reneges on the agreement by cheating, since it is a one-off game. The decision as to whether to cheat or cooperate over an arrangement can be analysed using game theory, and often takes the form known as the prisoners' dilemma game. This can be applied between a client and a contractor, where each has the option to cooperate and abide by the contract or to cheat. Table 3 illustrates the outcomes of whether the contractor and client choose to cooperate or cheat.

For the contractor, choosing to cheat always gives them a better outcome, regardless of what the client does. Therefore the 'dominant' strategy for the contractor would be to cheat. For the client, choosing to cheat would be the best choice if the contractor chooses either to cooperate or cheat, therefore choosing to cheat is also a dominant strategy. The client will calculate the contractor's move before making their choice. Since the client will presume that the contractor

will always cheat, the client will similarly cheat to maximise their outcome. This means the equilibrium in the one-off game shown will always be 2, 2. In game theory, this is also known as a dominant strategy equilibrium, whereby each player is choosing their best strategy whatever the other player chooses. A dominant strategy equilibrium is necessarily a Nash equilibrium – a less strict case where each player is making a best response to the other player's best response. This situation is defined by Morgan, Katz and Rosen (2009 p. 543) as 'a market is a Nash equilibrium when each firm is choosing the strategy that maximises its profit, given the strategies of the other firms in the market'.

'Dominant strategies' are defined as being at least as effective as any other strategy, regardless of the actions of the other party. There are two forms of these strategies: 1) strictly dominant and 2) weakly dominant. In the first case, a strictly dominant strategy will always lead the party to be better off no matter what the other party does, which is demonstrated in the game above. A weakly dominant strategy will lead a party to be at least equally well off regardless of what the other party does. However, a single period game played between two players is not a very helpful model of decision-making in a long-term contract, and public-private partnerships are almost always long-run relationships. Rather, a single period game models how decisions may be made between a buyer and a seller in a one-off transaction, with no expectation of future trading. In such a one-period game, it is not possible for parties to influence each other's behaviour by the threat of future consequences as there is no 'history', and so the model cannot provide insight into any form of relationship pertaining to trust over time to reach an outcome that is more mutually beneficial.

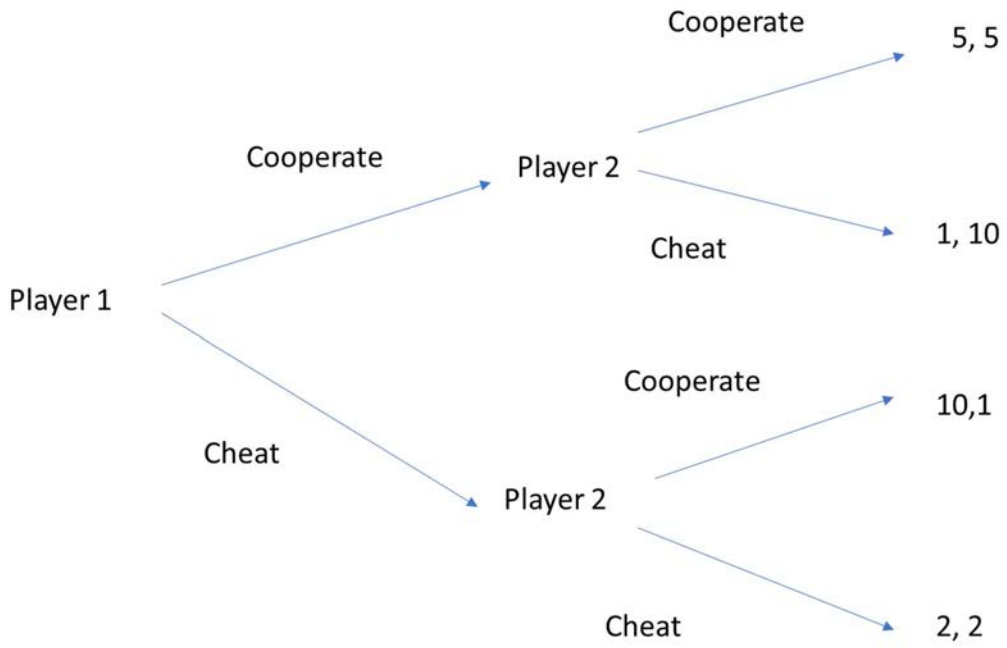
Repeated games

The limitation of single period games has led theorists to consider repeated games. Cooperation and punishment between players are possible under repeated games, and repeated games, therefore, provide a better model of transactions in public-private partnerships where contracts are long term. In the one-off game, even though a cooperative agreement could be better for both players, there is no room in the model to consider how players' strategies might be influenced by long-term considerations such as the development of trust. If the two players cooperated, they could both be better off, if they both agreed always to cooperate. The

equilibrium under cooperation would be 5, 5 with both contractor and client receiving 5 instead of 2, and therefore significantly better off through cooperation.

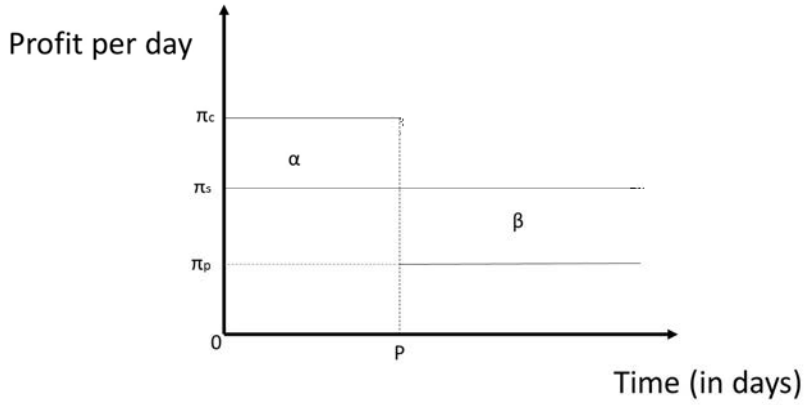
With repeated games, a strategy of cooperation can be developed because the payoffs for both players may be greater over time. The strategy of cooperation might be reinforced by the presence of punishment, therefore making it in the interests of both parties to stick to the agreement and reduce the profits associated with reneging. This can happen when the game is repeated. The extensive form of the game illustrates possible sequential decision making under public-private partnerships, where the public sector client and the private sector provider trade over a long period on an operational project. Below, Figure 1 shows the game in this format.

Figure 1: A diagram of an extensive game



Theoretically, if the game above were to be repeated an infinite number of times, a cooperative strategy could be developed. In this case, they might both agree to choose to cooperate and then they would receive 5 each, rather than 2 in the one-off game. They would be mutually better off by cooperating, and the client could threaten the contractor always to choose to cheat if they did not adhere to the agreement. The graph below indicates how payoffs would change for the contractor if they were to renege on the agreement.

Figure 2: The profit that the contractor makes over time if they renege on an agreement



(Adapted from Morgan, Katz and Rosen, 2009, p. 563)

This diagram shows that a company would make α extra profits from cheating before the penalty, P, had been implemented. Once the penalty had been applied, they would lose β profits which they would have made had they not cheated. Acting opportunistically would not be in the contractor's interest if the profits made from cheating were smaller than the benefit from cooperating.

There are a number of circumstances in which cooperation, as a strategy, is more likely to succeed (Morgan, Katz and Rosen, 2009). First, the tougher the punishment for cheating, the less incentive there would be to renege on the arrangement. This would reduce the potential profits from cheating in the long term, as the other player could choose to punish for the rest of the repeated games. In order for the punishment to work it would need to be 'credible'. A 'credible' punishment, is defined by Morgan, Katz and Rosen (2009) as follows: 'any threats (or promises) contained in a self-enforcing agreement must be credible; that is, if a firm makes a threat, it must be in the firm's self- interest to carry out the threat if called upon to do so.' There should be no negative consequences for the player carrying out a punishment. In the case of negotiation between the public sector and the contractor, the threat of punishment should be in the interests of the public sector procurer. If the contractor could retaliate or minimise the losses of the punishment, this would reduce the credibility of the punishment.

Second, the longer it takes to catch a cheater, and the lower the likelihood that a cheater would be caught, the greater the incentive to cheat. The potential profits from cheating, in the long

run, would be greater if seen in terms of present value, and particularly if the cost of punishment is not high. Figure 2 shows profits gained during the cheating phase and how they are lost after the player has chosen to cheat. The player makes losses for the rest of the games as the other player continues to carry out the threat in every game after cheating takes place. If the profits made from cheating are greater than the losses made thereafter, there is an incentive to cheat. However, a punishment written into the contract will be effective and act as a deterrent if the stream of losses outweighs the profits from reneging on the agreement. The size of the punishment is critical to raising credibility and it needs to be in the player's interest to use it. If the punishment reduces the welfare of the party who is implementing it, it is not in their interest to use it. Also, for a threat to be credible, the cost of punishment needs to be higher than the gains from being opportunistic. Otherwise, there is no incentive for a party to change their behaviour.

Third, the greater the complexity of the cooperative arrangement, the less likely it is that it will be successful. It is more likely that the agreement will be misunderstood and there will be genuine mistakes in following the arrangement. Morgan, Katz and Rosen (2009) say this is more likely to be the case when there is tacit collusion between the players rather than a formal agreement.

4.3.5 Theories of the development of cooperation between parties

Many other suggestions have been made in the literature on governance in procurement as to how to design solutions to generate cooperation between two parties, and with an emphasis on the need for a competitive tendering process and partnership to improve outcomes. Williamson (1985) has suggested the importance of mutual dependence for a strategic partnership or integration of two or more organisations to produce services, and he noted a need for 'relational contracting'. He argued: 'Failure to support transaction-specific assets with protective governance structures predictably results in costly haggling and maladaptiveness. The intrusion of behavioural uncertainty, which is associated with unique events, compounds the difficulties' (Williamson, 1985, p. 79). In the case of private finance initiatives, which last for up to thirty years, 'haggling and maladaptiveness' due to ineffective governance structures could lead to poor value for money, delays in receiving services and lower than expected quality of services

for the public sector client. Luce and Raiffa (1985) also discuss the 'desirability of pre-play communication' in game theory, particularly in two-person-non-zero-sum non-cooperative games. Luce and Raiffa (1989) argue that cooperation can develop even without replay communication if the game is repeated several times. Strategies to 'police the status quo' would involve a form of punishment. Their theory predicts that, rather than there being one equilibrium, there is a set of 'cooperative solutions' that can be reached through negotiation.

4.3.6 Theory of relational contracting

The theory of 'relational contracting' sits in a group of approaches that has aimed to characterise negotiating in incomplete contracts more realistically. The concept of 'relational contracting' is also considered relevant to understanding the effectiveness of operating PFI contracts, given that most such contracts with one supplier last for up to thirty years. Relational contracting occurs when relationships and contracts are integrated to manage long-term contracts that are incomplete. It is a process that acts as a substitute for competition, which is another process that allows the buyer to achieve their aims if they do not have a long-term contract with one supplier.

The concept of 'relational contracting' was developed by MacNeil (1978) to suggest processes that could take place as contracts increased in 'duration and complexity'. Neoclassical contract law models sought to predict what would happen in complex, incomplete contracts by examining a process whereby formal adaptations could be made to the original contract. However, in these circumstances, the models could not effectively develop processes adequate to adjust for very incomplete contracts (Williamson, 1985).

MacNeil (1978) argued that it would be better to characterise the relationship between the buyer and the supplier as a 'mini-society with a vast array of norms beyond those centred on the exchange and its immediate processes', rather than rely on discrete processes developed by neoclassical contract law models, described by Williamson (1985) as 'fiction'. Williamson summarised MacNeil's characterisation of the relational approach as different from neoclassical contract law in terms of the importance of the original agreement. Neoclassical contract law designed adaptations from the original agreement, whilst MacNeil argued that relational contracting was the 'entire relation as it has developed (through) time'. This may or

may not include an 'original agreement'; and if it does, may or may not result in great deference being given it' (McNeil, 1978, p. 890; Williamson, 1985). MacNeil suggested relational governance could be measured by the level of trust, information sharing, dependence and cooperation (MacNeil, 1978; Poppo and Zenger, 2002). The theory of relational contracting suggests a reliance on potentially effective retaliatory tactics whereby the buyer could create an adverse impact on the reputation of the seller, if they were not satisfied with performance (Williamson, 1985).

The study of relational contracting between the buyer and seller largely dates from the 1980s, with studies by Klein and Leffler (1981) and Shapiro and Stiglitz (1984) assuming contracting situations with symmetric information (Bolton and Dewatripont, 2005). However, more recently, academics have developed other models of relational contracting where asymmetric information is assumed. Relational governance has been examined not only by economists through transaction cost economic analysis but has also been of interest to sociologists. In both disciplines, the role of trust and social norms has been emphasised in defining what is meant by relational governance, and in describing how it helps contract management in practice (Hill, 1990; Uzzi, 1997). Some have argued that relational governance facilitates open communication and information sharing, which improves the possibility of reaching an agreement with which both parties are content (Bradach and Eccles, 1989; Granovetter, 1985; Dyer and Singh, 1998; Uzzi, 1997).

4.3.7 The literature on relational and contractual mechanisms to manage operational performance

The literature on contracts has more recently moved towards analysing how relational and contractual mechanisms may work together to have an impact on operational performance. The debate has focused on whether these mechanisms act as complements or substitutes in the management of contracts.

Initially, most studies concluded that relational mechanisms and contractual mechanisms acted as substitutes (Poppo and Zenger, 2002). These studies suggested that contractual mechanisms might be able to provide a solution when they are incomplete if they lack adaptations for unexpected circumstances. In that case, the parties would be likely to rely on relational mechanisms to reach a win-win situation. This would give each party an incentive to continue

operating in a contract which had a self-enforcing safeguard and was a less costly alternative to vertical integration (Poppo and Zenger, 2002; Uzzi, 1997). It has also been suggested that relational governance could be undermined by contractual mechanisms, because a detailed, explicit contract might be seen as indicative of a lack of trust between the buyer and seller (Uzzi, 1997). This would potentially lead to poorer communication and information sharing and encourage opportunistic behaviour (Ghoshal and Moran, 1996; Poppo and Zenger, 2002).

On the other hand, an article by Poppo and Zenger (2002) argued that relational mechanisms and contractual mechanisms might work as complementary to one another. This finding arose from research collecting data from managerial staff in computing firms procuring services in the early 1990s. They started out testing various hypotheses, examining the relationship between complex contracts (contracts with greater detail to manage uncertainty) and relational governance, if they could function as complements and whether or not these variables explained exchange performance. They observed a different 'cause and effect' model between complex contracts and relational governance and concluded that complex contracts increase relational governance. They also noted that relational governance increased complex contracting, thus proving that contractual and relational mechanisms acted as complements. Their data also suggested that both complex contracts and relational mechanisms improved satisfaction with negotiations on cost, quality and responsiveness from their contractors. Their findings add to the debate as to how relational mechanisms and contractual mechanisms interact in negotiations in outsourced services and is particularly pertinent to an understanding of how the performance of public sector outsourced services is reached in practice.

4.3.8 Current theories of contracts

New developments in contract theory were made at the beginning of the twenty-first century. During the preceding century models from the literature on contract theory and property rights had shown how renegotiating incomplete contracts could lead to *ex-post* efficiency (Coase, 1937; Hart and Moore, 1990). However, a new perspective on Hart's contract theory came from Coase's (1937) and Williamson's (1985) work and belief that the focus of contract theory, and that of property rights theory, was too restrictive. In particular, it was felt difficult to model 'haggling costs' (Hart, 2008) in such a framework. Hart and Moore (2007, p. 182) argued that 'it may be useful to broaden the approach to include some new elements, such as behavioural

ones'. This was to create 'a theory of *ex-post* inefficiency' where at least one party was dissatisfied with the outcomes of a contract (Hart and Moore, 2007). The behavioural assumptions Hart and Moore (2007, p. 183-184) made in their model stemmed from 'the idea that a contract is a reference point for parties' feelings of entitlement [and] affects contractual performance'. The assumptions of the model can be summarised as follows:

- At date 0, both parties are uncertain about the state of the world, but by date 1 when the services are produced, they become certain just before the end result.
- They make the distinction between 'perfunctory' performance, which is adequate performance and 'consummate' performance, which is excellent performance. 'Consummate' performance only costs a bit more than 'perfunctory' performance and the seller will provide it if they feel 'well treated'.
- There is symmetric information between date 0 and date 1, meaning both parties have the same amount of information, however that state is unclear.
- The terms of the contract were 'negotiated under competitive conditions' and therefore it is perceived as 'fair' by both parties. Neither side expects an outcome outside the contract because of their expectations.

The buyer could be aggrieved with the seller for their providing merely perfunctory performance and therefore might engage in 'negative reciprocity'. This hurts the seller and causes a 'deadweight loss' where the contract is optimal for neither party. Alternatively, the seller could be aggrieved with the behaviour of the buyer and therefore might engage in behaviour which reduces the wellbeing of the buyer by the seller capturing other transaction costs, such as by reducing production costs (Hart and Moore, 2007). Hart and Moore (2009) have modelled a long-term relationship between a buyer and seller in an uncertain world and have assumed that the contract acts as a reference point. They argued that one party would have the incentive to 'hold up' the other and it would be likely to occur if that value or the cost was unexpectedly high. Otherwise, if circumstances were not unusual, then the contract would run as predicted from the beginning. As a solution, they suggested that both indexation of prices and asset ownership would reduce the incentive to 'hold up' the other party. Asset ownership would affect how much the parties valued their relationship to alternative options.

Hart, Fehr and Zehnder (2011) put the model to the test and created an experiment to test how a feeling of entitlement affected behaviour when negotiating in uncertain circumstances. They

created two groups of buyers and sellers who operated in a contract and assumed that it would operate in bad circumstances with a 0.2 probability, and under good circumstances with a 0.8 probability. The experiment showed that the expectation of parties at the beginning of the contract did indeed affect their behaviour. In flexible contracts, where there could be many outcomes, if the buyer chooses an unfavourable outcome for the seller, the seller would be more likely to engage in 'shading' activities. Shading means a party engaging in activities that would reduce the quality of the work, for instance not investing or putting in as much effort as expected. In rigid contracts, where outcomes had been clearly set out at the beginning of the operational period of the contract, shading would not be triggered if buyers chose unfavourable outcomes. Therefore, both flexible and rigid contracts have advantages and disadvantages. Rigid contracts reduce opportunism and the incentive to engage in shading activities that hurt the buyer. However, flexible contracts have the advantage that the buyer can select the outcomes that they wish during the operational period.

4.3.9 Summary of contractual theory

The literature on contract theory provides guidance on how to understand the characteristics of contractual arrangements that may be used in practice. It predicts where there can be potential problems with incomplete, long-term contracts with asymmetric information. It also suggests what solutions might be available if contracts have these features. Incomplete contract theories suggest writing more complete contracts and having a governance structure in place to support negotiations where contracts are incomplete, to reduce the problem of disputes, and 'hold up' from the provider. Game theory suggests that including credible threats, such as significant penalty clauses for poor performance, is likely to counter opportunistic behaviour and encourage cooperation. Principal-agent theory suggests that monitoring, and having expert knowledge of market conditions and product/ services, helps overcome the potential problems of asymmetric information. Another solution discussed in the literature, is the development of cooperative strategies by relying on relational mechanisms when contracts are incomplete. Later in this thesis, we will examine how far such theories might have predicted the performance of contracts as evidenced through the data gathered for the research. In this respect, evidence was gathered that enabled analysis of the extent to which any of these phenomena were occurring in practice in the operational contracts context of schools.

5. Evidence on operational performance in PFI projects

5.1. Introduction

This chapter examines and summarises the literature on the practical experience of operating contracts and considers what conclusions have been drawn to date. The majority of the literature relating to PFI contracts is concerned with the accounting practices and the tendering process. In comparison, there is much less literature on the contractual issues that arise during the operational period of PFI contracts. Thus, then, provided an interesting issue in the research for this thesis which has focused on the practice of how the public and private sectors work together during the operation of PFI contracts. The chapter also reviews the recent history of school provision by the government - the schools sector providing the context in which the research has been set.

5.2. Literature review on the performance of PFI projects

Two sets of quantitative data provide useful evidence on the costs of post-contractual soft services. In 2008 the NAO collected data on the price procurement teams in PFI contracts paid for minor school-works, such as arrangements for fitting locks and extra sockets, from between four and seventeen PFI projects. Moreover, two reports from the NAO (2008, 2011) concluded from this evidence that, as the average cost of small building repairs was 54 percent higher than the published comparator data from the Royal Institute of Chartered Surveyors, this amounted to strong evidence that public sector clients' negotiation powers with their PFI contractors were weak. The same reports argued that there would have been a different outcome had clients been able to take advantage of other suppliers who might have competed to undertake the work with the likelihood of achieving a 'market price' for all such types of building repairs. The NAO report (2008) also collected evidence in the form of interviews and questionnaires which suggested that, although the vast majority of interviewees were happy with the quality of the work undertaken, they believed that minor jobs were often expensive and that it was hard to achieve value-for-money when negotiating for larger repairs (NAO, 2008). This finding was in some contrast to the conclusions of an Audit Commission report (2003) on PFI schools which was based on comparative tests of the costs of soft services in PFI and non-PFI schools,

and found ‘no statistical difference… in buildings maintenance, grounds maintenance, water, sewerage and fuel’.

The Audit Commission (2003) also investigated the operational performance of PFI schools through a comparative study between PFI and non-PFI contracts. Here qualitative data was collected on the users’ perceptions of the quality of the buildings. The majority were generally satisfied with the ‘look and feel’ of the building, the ‘construction needs’ (such as cleaning and sustainability of the building) and meeting different needs of the users. However, the report cited evidence from the Chartered Institute of Building Services Engineers suggesting that PFI school buildings were of significantly lower technical quality than traditional schools. Technical quality was judged on five criteria: architectural design, building services design, user productivity, ownership costs, and detailed design. Yet, the quality of soft services, particularly cleaning and catering, was considered to be of higher quality than that for non-PFI schools. Evidence was also collected on risk management and innovation in PFI schools. The evidence here suggested that it was hard to pass risks onto the private sector, such as demand risk and the risk of vandalism to property, because the local education authorities lacked data on these issues. Moreover, there was little evidence that the private sector partner had created innovative solutions to overcome problems with the buildings. Accordingly, the Audit Commission suggested that the public sector needed a better understanding of what they wanted from a building before putting a contract out for tender. It was also suggested that there should be safeguards, such as spending controls and allowing services to be open to competition, in order to create financial incentives to meet specifications set out in the contract.

Demirag and Khadaroo (2010) analysed the performance of PFI school projects in terms of costs, outputs, outcomes and value- for-money in the operational period through a survey of head-teachers of 141 operational PFI schools. The general perception of the head-teachers in large PFI schools was that there was greater satisfaction regarding the cost of constructing the building than over the costs of the operational services. Among smaller PFI schools, however, the perceptions were rather different, with the survey suggesting higher satisfaction with costs. That said, head-teachers of the larger schools were more satisfied with the affordability of the payments for the unitary charges. There was concern over the lack of flexibility of the unitary charges, a concern that has also been mentioned in other literature (NAO, 2011; Audit Commission, 2003). In terms of outputs and outcomes, general perceptions of the quality of building and services was mixed, although most survey respondents did not consider that their

private sector partners to be especially innovative, even though that had been one of the key arguments of government for favouring use of the private sector in delivering public services. Furthermore, Demirag and Khadaroo (2010) showed from the interview evidence that they collected that penalties hardly represented credible threats for the public sector to use in negotiations because they were not high enough. This would suggest that opportunistic behaviour was profitable even when penalties were applied. Some head-teachers mentioned their inability to influence the strategy for facilities management as the contractor did not share the same goals and did not need to be too concerned with their clients' expectations (Demirag and Khadaroo, 2010). All this evidence would tend to support the view from the NAO (2008) and HM Treasury (2012) that the balance of power in negotiations lay in the hands of the PFI contractor.

Edwards and Shaoul (2003) have examined the governance structure of information technology PFI contracts to assess whether they included 'adequate incentives, remedies and safeguards' to achieve satisfactory service during the operational period. The framework for the study focused on five characteristics as defined by the National Audit Office (1999):

1) Adequate arrangements to manage the contract
2) Suitable incentives and bonuses to incentivise the provider, backed up by contractual sanctions
3) Arrangements for compensation for poor performance by the contractor
4) Satisfactory termination or handover arrangement
5) Suitable provisions for dealing with changing requirements

Their conclusions from studying two information technology PFI contracts were that 'in practice, risk was not transferred in ways that the public agencies had anticipated and the meaning of risk transfer in the context of partnership arrangements is problematic.' (Edward and Shaoul, 2003, p. 414). The public sector client would still be responsible for delivering services even though it 'seeks to transfer operational risk'.

Edwards and Shaoul (2003) argued that the governance structure was ineffective because it was undermined by the lack of alternative suppliers under a PFI contract and because the clients were locked in with their contractor. Edwards and Shaoul (2003, p. 416) suggested that an unequal relationship was inevitable in such a contract and would also be worse if the public sector organisation was small, and the service providers large. They suggested that the solution

to creating a more equal relationship and so being better able to achieve better value-for-money was to 'retain some in-house capacity, or an ability to bring in alternative suppliers of services in the event of any failure in service delivery'.

In not dissimilar vein, Pollock (2008) surveyed ten case studies from a range of sectors to analyse whether the processes in place in PFI contracts transferred risk to the private sector during the operational period. She concluded that, unfortunately, the data available was too inconclusive to suggest that risk had been successfully transferred to the private sector. A few years earlier, Lonsdale (2005), researched post-contractual lock-in within PFI contracts, through semi-structured interviews, to analyse the factors that could potentially affect outcomes of negotiations. From two contrasting case studies specifically on PFI projects concerning information systems, Lonsdale (2005) found that pre-contractual negotiation had a significant impact on the balance of power in post-contractual negotiations between the public and private sectors. The first of these case studies, between National Savings and Investments and Siemens Business Systems, was adjudged to be achieving value-for-money (NAO, 2000), and for a variety of reasons: there were thorough specifications in place with forty-two Key Performance Indicators that Siemens had to meet and the provider could be credibly penalised with the mechanisms that were in place, such as opening services to tender if the provider's performance was sub-standard. In this case-study Lonsdale concluded that value for money had indeed been achieved because the procurement team was well resourced, the tendering process was competitive right until the end, there were no internal politics affecting the commercial focus of the contract, and there was the potential for a liability payment.

However, this was in some contrast with the second case study (Lonsdale 2005), which examined the PFI project between the Lord Chancellor's Department (LCD) and the private sector partner ICL. Here, during the tendering process, two of the three contenders had dropped out at the final stage, which gave the remaining contender significant power to renegotiate the contract in their favour. Moreover, many instances were identified of ICL 'holding-up' LCD by threatening to walk away from the project, a threat which was considered credible. The Government was unable to strengthen the Department's bargaining position because of the timing and the political context of the project. First of all, Sir Hayden Phillips, then Permanent Secretary at the Lord Chancellor's Department, chose not to cancel the project because the existing IT systems were fragile and urgently needed replacing. Starting the procurement process again would have taken another fifteen months and therefore, there seemed no

alternative solution that could deliver the services in a short time frame. Second, it was felt to be politically embarrassing to struggle to procure a national system again, after the previous termination of a contract with another supplier. Such an imbalance of power in the relationship led to a change from the initial bid from ICL of £146 million, for ten and a half years to be signed in October 1998, to £319 million for fourteen years of service in May 2000, with ICL continuing to renegotiate parts of the contract after it had been signed. The National Audit Office in 2003 concluded that, as the costs of the project had become significantly higher than expected, value for money had not been achieved under the contract.

5.3. Government policy on governance structure and relational contracting of PFI contracts

Government policy on governance structure and on relational contracting of PFI contracts has changed since PFI was first introduced. As mentioned earlier, the Government had provided guidance since 1996 on how to draft contractual mechanisms in such contracts in documents such as 'Standardisation of PFI contracts' (HM Treasury, 2004, 2007). The Office of Government Commerce, which was part of the HM Treasury in 2000 but closed in 2011, provided guidance for procurement teams using PFI contracts. They suggested approaches to negotiation prior to the operational period which included making the tendering process competitive. The Government also sought to improve the management of PFI contracts through the Best Value framework developed in 1998. This focused on improving partnerships through better communication and the development of more positive relationships between stakeholders, with some of the research on this subject suggesting that effective relational mechanisms would improve performance and value-for-money (Lonsdale, 2005; HM Treasury, 2012). The Office of Government Commerce (NAO 2004) also provided information on what small building repairs should realistically cost, so as to reduce any information asymmetries arising between buyers and suppliers.

By 2012, however, the Government had concluded that value-for-money could not be achieved in PFI contracts, regardless of contractual and relational mechanisms with its new guidance on designing the payment mechanism stating:

'A number of performance regimes amongst early projects have been over-elaborate and, as a result, ineffective, and some have not been designed with enough consideration of the practicability of day-to-day procedures. As a rule, simple is best. The payment mechanism should seek to "measure less but measure well"' (HM Treasury, 2012, p. 159).

New guidance on writing contractual mechanisms issued in 2012 for the new form of PFI contract named 'PF2', was quite similar to the 'Standardisation of PFI Contracts Version 4', suggesting that there should be deductions for poor performance and weighted according to how critical the service was, so as to improve the link between payment and outcome. It also suggested that availability and unavailability should be defined in order to adjust payments, and that a monitoring system should be put in place. The guidance also recommended using benchmarking during an operational contract to test whether prices for services were competitive. However, market testing for services was not recommended as it had been previously. Most soft services were taken out of the PF2 contracts, making the smaller, and with soft services no longer being subject to the same payment system. The same guidance also removed the need for market testing of services if they were already open to alternative suppliers.

Another difference between the original PFI guidance and that for the replacement PF2 contracts was in the expectation of customer satisfaction surveys and a new focus on calibration, the process detailing the design of the payment mechanism. According to the PF2 guidance, calibration should determine 'a large number of points of detail involved in assigning numbers to the various parts of the payment mechanism'. The importance attached to calibration aimed to avoid too many deductions being applied for poor performance:

'An over-rigid approach during negotiations will reduce the scope for innovation by the bidders and so reduce the potential for best value for money to be achieved.'

(HM Treasury, 2012, p. 168).

5.4. Critique of the evidence on PFI contracts

In this section, the evidence on PFI contracts and contract performance is reviewed and some gaps in the literature are identified. Much evidence that shows PFI contracts to be more expensive than the expected market price, for building and operational costs (Mott MacDonald,

2002; NAO, 2009; HMT, 2012 and 2018) and a variety of explanations have been given for such a finding. Two key pieces of published evidence that focus on soft services during the operational period are the NAO report (2008) investigating the operational period of PFI contracts and the Audit Commission report (2003) on the costs of a variety of procured soft services in school PFI projects. However, the conclusions from these studies tend to contradict one another, with one report suggesting that costs are too high whilst the other indicating that prices tend to mixed. Within the academic literature a number of reasons for this are provided, as well as explanations as to why prices for soft services might vary across PFI contracts.

Within the literature it has been suggested that value-for-money can be achieved under certain conditions in PFI contracts (Lonsdale, 2005; Lonsdale and Watson, 2007; Zheng, Roehlich and Lewis, 2008). In particular, Lonsdale (2005) and Lonsdale and Watson (2007) argued that a public sector team could achieve the results they wanted if they were suitably experienced in dealing with suppliers within PFI contracts. However, they emphasised that it would be hard to expect to acquire these skills in the short-term. They suggested that the contract design of PFI projects does not protect the interests of the public sector client, leaving them very vulnerable to 'hold-up' in post-contractual negotiations. Lonsdale (2005) argues that the contract design works best under circumstances where there is 'low asset specificity', meaning there has not been significant investment to create highly relationship-specific services for the client and that current assets can easily be changed for different uses. However, Lonsdale (2005) argues that it would be difficult to achieve value for money when there is high asset specificity, because this creates greater uncertainty and much higher switching costs, meaning there is no viable alternative for public sector clients.

Others have also argued that higher costs are generated by complexity, and that complexity is related to the scale of the project, and therefore the larger the project, the harder it is to achieve value-for-money during the operational period (Egan, 2014; Cheung and Chen, 2011; NAO, 2008; and Demirag and Khadaroo, 2010). Moreover, there is some consensus around whether the complexity of the contract affects the ability of procurement teams to negotiate on prices. Lonsdale and Watson (2007) and Lonsdale (2005) have suggested that the main problem with PFI contracts is that they are too complex to manage. Lonsdale and Watson (2007) have argued that public sector clients act in an 'environment of opportunism' because the 'bundling' of services makes the contract unhelpfully large and incomplete. Since the public sector team cannot use a competitive process during the operational period to negotiate on the price and

quality of services they desire, they are dependent on their relationship with the supplier and knowledge of market prices, and are always vulnerable to being exploited. The supplier can take advantage of any asymmetry of information arising by charging uncompetitive prices and under-investing in quality. Therefore, Lonsdale and Watson (2007, p. 76) have argued that the design of PFI contracts is at fault because the 'bundling' of services means that 'they contain too much asset specificity, uncertainty and information asymmetry to be coped with'.

Similarly, other academics have argued that, to achieve good outcomes under PFI contracts, a number of circumstances are desirable. These include skills in contract management and ensuring that existing processes are genuinely competitive. Also, as uncertainty and information asymmetry are significant potential problems, PFI contracts are more suited to products that are less complex and less so for multiple and 'bundled' services. Some of the evidence gathered by the key researchers suggest that many PFI contracts for the same services are hardly homogeneous in terms of the mechanisms for managing sub-standard performance. PFI contracts contain varying amounts of detail in their specifications and experience levels among procurement teams tends to vary considerably. From the case studies on the operational period of PFI contracts, it appears that there can be different contractual mechanisms and relational mechanisms within the broad category of PFI procurement policy. For example, case studies of PFI contracts with varied contract designs led both Zheng, Roehlich and Lewis (2008) and Lonsdale and Watson (2007) to conclude that effective contract mechanisms, complemented with good relationships between the two parties, could lead to positive outcomes in PFI contracts, but that contract design and contract management skills needed to improve to ensure that attainment of better performing PFI contracts.

In light of all this, it becomes clearer why performance results for PFI contracts vary for soft services, and that much depends on the process of contract management and negotiation. Previous research also indicates that prices for soft services are widely perceived as being too high compared with market prices and that performance is, at best, mixed. In various of the research studies and official reports, there is also acknowledgement that the level of bundling, the attachment of penalty clauses, benchmarking and the quality of the relationship between the public sector and PFI contractor, varies across the spectrum of PFI contracts (Lonsdale and Watson, 2007; HM Treasury, 2018). However, there has been little evidence to date on the issue of how exactly the particular outcomes are affected under different contractual mechanisms. For example, Lonsdale and Watson (2007) have discussed the role of penalties,

the HM Treasury report (2018) emphasised the importance of benchmarking, but no known published research has examined the question of using all contractual mechanisms together. Also, very few published reports have taken into account the non-homogeneous nature of PFI contracts (Henjewele, Sun and Fewings, 2011; HM Treasury, 2018, Lonsdale and Watson, 2007).

The research undertaken for this thesis does address this knowledge gap. It has indeed examined the issue of differences in contract design in PFI projects. Although the NAO report (2008) mentioned that experience, information and the relationship could make a difference to service outcomes, it recognised that the public sector struggles to negotiate because there is no option for extra operational work other than buying from one supplier. This thesis extends the work covered in the NAO report by examining in-depth how relational contracting works in practice under PFI contracts and which particular processes and controls are most effective in negotiation. It explores the relationship between different mechanisms and relationships, and the outcomes that they produce.

The lack of discussion in the academic literature of non-PFI comparators when determining whether prices for services under operational PFI contracts are relatively expensive means that it remains difficult to determine what is unique about negotiation and outcomes under different contracts. Moreover, the lack of PFI contract comparisons with traditional procurement was a matter that was raised as a Parliamentary concern by the Public Accounts Committee (HM Treasury, 2018). Unfortunately, one of the two studies that involved data gathering on soft services encountered data collection difficulties, and only the NAO report (2008) was able to provide reliable information on the prices paid for small repairs in PFI contracts. Even so, the study involved shortcomings that required a qualification to the conclusions, namely lacking the right comparators for assessing whether prices were too high, the comparator that was used being ‘expected costs’ rather than ‘actual costs’. Expected costs would be less reliable as a comparator because it would still be possible for the public sector procurement teams in non-PFI contracts to pay a similar range of fees to those operating under PFI contracts, regardless of what the Royal Institute of Chartered Surveyors had suggested ought to be the price (NAO, 2008). Accordingly, it was impossible to know if the results obtained were unique to PFI contracts. The only other quantitative evidence available on costs from the operational period came from the Audit Commission report on PFI projects in the education sector. However, the evidence here was contradictory to that from the NAO study, thus leaving an unclear picture

as to whether value-for-money would be achievable for soft services in non-PFI schools as well as exactly how outcomes might be reached in PFI and non-PFI schools.

Furthermore, several contrasting conclusions could be drawn from the dataset from the NAO report (2008) none of which could be entirely discounted. While the prices paid for school electrical sockets might have varied beyond the range suggested by the Royal Institute of Chartered Surveyors, data showed that on at least one in four occasions, the public sector client managed to negotiate the market price or less, and despite being reliant on only one supplier. Yet it has not been clear why different results might be being reached, exactly what factors are at work in the process of procurement, and which are most influential on the outcomes. The research for this thesis would thus need to explore the reasons why success in negotiations might vary within PFI contracts, as well as in relation to non-PFI ones.

A key gap in knowledge that this thesis thus seeks to address, then, concerns the effect of particular features of contract design. While, as indicated, comparative literature studies have discussed the differences between PFI and non-PFI procurement (Mott MacDonald, 2002; Audit Commission, 2003; NAO, 2008; HM Treasury, 2018), it is equally apparent that significant similarities could equally exist between contracts in terms of processes and controls. The processes in non-PFI contracts might of course also be uncompetitive and the public sector might equally need to invest in their relationship with their private sector partner. More generally, there remains a dearth of evidence as to whether significantly different outcomes are achieved under PFI and non-PFI contracts when considering operational services. If there was evidence that higher prices would be more likely with PFI contracts, then that would be evidence to favour non-PFI procurement. But the similarity in results might suggest that the problems with PFI contracts are more generic and that careful scrutiny is called for with regard to the design and management of both PFI and non-PFI contracts. That, indeed, was the key challenge for the research for this thesis, which has sought to clarify what are the similarities and differences in the procurement of services between non-PFI schools and PFI schools. In this respect, the comparison presented in Chapter 9 focuses on how in particular performance appears to relate to contract management or design and whether and why similar outcomes might be achieved in non-PFI schools. Here the analysis also explores whether relational contracting impacts upon both types of schools in the same way, whether a similar influence is affected on performance of services, and if different outcomes occur because of more competitive processes in non-PFI school procurement.

Finally, government reports have also suggested that external factors beyond the control of either party can affect the cost of projects. For example, the world recession in 2008, and the economic downturn in the UK, meant that public sector clients and PFI contractors in combination had to pay £1 billion more in loan interest (HM Treasury, 2012). This indicates how the public sector can end up paying more for services simply because of unexpected economic or political circumstances. In this context, the research for this thesis also sought to investigate what other social, political or economic factors in the external environment might have an impact on the outcomes of services, for example, the impact of the local labour market, changing government policy and shifting demographics in pupil population. Almost certainly, such external factors would likely have an impact on the outcomes of negotiations between the public sector client and the private sector provider. Such issues of practice that arise from the theoretical considerations are, as indicated, explored in more detail in Chapter 9.

5.5. Conclusions

Current published research, then, hardly provides a clear picture of how PFI contract mechanisms are applied in the negotiation process and how outcomes are reached. There has been little direct comparison with other forms of procurement in terms of prices and quality of soft services, the experience of contract management, and how outcomes are reached, and therefore it is unclear how differently non-PFI procurement performs in practice. The literature on PFI has applied some elements of theory, namely game theory, asymmetric information and relational contracting, when examining the impact of penalties and public sector negotiation strategy. But there could be advantage in also applying contract theory to examine other contract mechanisms and understand better the negotiation experience in the PFI contracts. There is also scope to understand the context in which schools operate by considering aspects of the external environment as well.

Much more needs to be understood about the relationships between procurement methods and the outcomes being achieved, and taking account of the context in which PFI and non-PFI practitioners operate. More evidence is also needed of the impact of the regulations and the advice provided by local and central government, as well as the contract mechanisms within contracts on the services being provided.

5.6. Implications for the Research

Furthermore, the research for this thesis explores how the relationship between client and contractor can change the balance of power in negotiations. Evidence on the price paid for soft services suggests that the power balance in negotiations may not always be entirely in favour of the private sector. Transaction cost economics suggests that the supplier's concern for their reputation throughout the project could be effectively used by their client in a long-term contract (Williamson, 1985). A poor relationship and resistance from the public sector client to the contractor's solutions may make running the contract more costly. Disputes and legal action from the public sector client could mean it is not in the interest of the PFI contractors to ignore their requests. Hart (2003) argued that 'hold up' can theoretically occur both ways, where the contractor and client are in a long-term contract which is costly for either party to walk away from. This thesis explores how the balance of power in the negotiation process during the operational period can be characterised. Also, the research considers what happens when an agreement cannot be reached and how responses from the public sector client vary under different forms of contract.

The research for this thesis also examines whether contractual and relational mechanisms act as substitutes or complements in an operational contract, which is a question debated in the academic literature. There is a focus here on defining the governance structure in PFI contracts and assessing the structure's effectiveness, because this has not been covered in previous studies. This is combined with a comparison of differences in contract management practices between PFI and non-PFI contracts. The research examines how relational contracting works in practice in PFI contracts, what factors affect the balance of power between the private sector provider and public sector client. It looks at how the power balance compares to a competitive process in non-PFI contracts and asks whether procurement processes are truly competitive under non-PFI contracts. It is not clear how negotiation differs in practice from that found in other non-PFI relations and how non-PFI contract mechanisms lead to particular outcomes. A comparison of PFI and non-PFI contract design makes it easier to establish whether PFI contracts are a better model.

Further hypotheses previously explored in the literature of contract theory have been tested in the research for this thesis. Contract theory suggests that procurement teams can negotiate

under relational contracting using levers that can genuinely be a substitute for a competitive process. For example, a client in a long-term contract with no option other than buying services from their contractor can raise possible damage to the contractor's reputation as a credible threat. However, this hypothesis has not been explored in the literature on PFI projects. Contract theory also discusses reaching win-win agreements between the two sides. There are a variety of theories, from game theory, and principal-agent theory to Williamson's governance structures (1985) and Hart and Moore's model of contracts functioning as reference contracts, that could explain what happens in PFI and non-PFI contracts. They prescribe several solutions for the problems posed by incomplete long-term contracts, such as PFI contracts, monitoring, and linking payments to performance through deductions and bonuses. They also predict the circumstances in which opportunistic behaviour from contractors is likely to occur. We examine which models can explain the causal relationship between contract design and outcomes. Game theory emphasises the need for credible threats to achieve cooperation between the public sector client and the contractor. We examine whether cooperation is a 'dominant' strategy for the contractor, given the incentive they have been given to perform well. Evidence is examined in Chapter 9 to see if these hypotheses can explain contractual performance in PFI and non-PFI contracts.

The research collects data from the school sector because it has the second-highest number of PFI contracts, exceeded only by the health sector. Data on the sector showed that by 2019, there were 24,323 schools attended by almost 8.8 million pupils in England (Department of Education 2019). In Scotland, there were 5,046 schools attended by 693,251 pupils (Scottish Government 2018). In Wales, there were 1,569 schools attended by 468,838 pupils (Welsh Government 2019). In Northern Ireland, 338,957 pupils were being educated in 1,832 schools (Northern Ireland Department of Education 2019). The average number of pupils per school has increased significantly over recent decades. In England alone, pupil to school ratio in secondary schools increased from 300 pupils per school to 946 pupils per school and in primary schools, the pupil to school ratio in primary schools has almost doubled from around 150 pupils to 279 pupils per school. This increase in size has put pressure to modify and add to school buildings. Investment in the built stock of the education system after the Second World War and before 1980 grew steadily, reaching 0.7% of GDP in the 1970s (IFS 2001). The design, build, finance and operation of state schools were fully controlled by local government. Therefore, the full responsibility and risk of the projects lay with the taxpayer. However, as Britain experienced a financial crisis and struggled to pay government debt in the 1970s, the

UK government became increasingly concerned about spending. Under the Thatcher government that started in 1979, investment in education infrastructure per year dropped from 0.7 % to 0.2% of GDP (IFS, 2001) over the 1980s and 1990s.

The quality of school infrastructure suffered during the two decades of under-investment and by the late 1990s, there was a backlog of repairs required in schools across the country (LSE, 2013, p. 5). The Labour government that took office in 1997 put education at the heart of its agenda. The Labour government was critical of the lack of investment in the education system over the previous two decades (IFS, 2001) and argued that the quality of school infrastructure had an impact on educational attainment (LSE, 2013). Over the period between 1997 and 2010, 324 schools were upgraded or rebuilt using the PFI method through the Building Schools for the Future programme. The LSE (2013) states that about 20% of secondary schools were affected by this programme. By 2010, work on 160 schools had been complemented and work was proceeding on 450 schools (LSE, 2013).

The Building Schools for the Future programme was criticised on a number of counts. The quality of the accounting and the business cases of the programme was criticised. Central government gave PFI credits to local councils to improve school infrastructure and therefore PFI became the main procurement tool during this period. PFI credits meant that local councils had the incentive to favour this form of procurement over other forms of procurement because they did not need to find the funds from their own budget (NAO, 2009). The costs were in large part paid for by central government and therefore would allow local councils to spend their budgets on other services. Central government funding of PFI projects was criticised by the National Audit Office (2012), because the approach encouraged local councils to overstate inherently weak business cases to obtain PFI credits. Such optimistic business cases did not rigorously assess the financial risks of adopting the PFI format for building schools nor honestly scrutinise the cost of this approach compared to alternatives. The National Audit Office in their report ‘Lessons learnt from PFI contracts’ (2011) argued that there was insufficient evidence that the PFI approach offered better value for money in comparison to traditionally procured buildings.

When a new government was formed in 2010, the Building Schools for the Future programme was slowed down and then stopped. From 2011, Government policy focused on austerity and funding for the education department was cut by 25%. Local government also saw significant

cuts to their budgets, which had an impact on how they staffed the management of school contracts (Centre for Cities 2019). Given there has been a long history of use of the PFI contract approach in the education sector, this policy can provide insights into operational contracts over a long period. Also, education PFIs can illustrate how a change in government policy and the external environment could impact the management of a PFI contract.

The next chapter explains the approach taken to researching these issues. The areas for exploration are formalised into key research questions; the research design and methodology are explained and justified.

6. Research design and methodology

6.1. Introduction

The previous chapters have examined a number of theoretical frameworks to help explain the outcomes of contracts as well as discussing what the scholarly literature has to say about PFI contract performance. Those frameworks and the literature review have guided the development of enquiry and the gathering of data for the research on which this thesis is based. This chapter, then, now sets out to explain and justify the research design and methodological approach taken. First, the chapter introduces further the research objectives and research questions that have been developed in the light of literature review of the previous chapter. Second, the ontological and epistemological assumptions underpinning the research and reasons for adopting a case study research design are set out. Third, the methodological tools used for data collection are outlined and discussed. These tools were semi-structured interviews and documentary analysis. Information is provided on how a particular sector - education - was selected, the design of comparator groups, how interviews were conducted, the documents analysed and, finally, the limitations of the data collected are considered.

6.2. The research questions

As discussed in Chapter 5, an important conclusion from previous research, as reported in the published literature, has been that PFI contracts are expensive compared with market prices. However, as already indicated, there has been little exploration to date of how exactly the contract mechanisms lead to such results, apart from the length of the contract and the bundling aspect of contract design. There has been little investigation of whether there are variables, other than the procurement approach, that affect the performance of services. Moreover, there have been few comparative studies of the operational performance of PFI and non-PFI contracts. Accordingly, it would be helpful to undertake an in-depth study of particular contract mechanisms operating under non-PFI procurement and of exactly how they achieve the service outcomes that they do in order to make a more informed comparison with PFI contracts.

The principal objective of this research, then, was to investigate in detail how and what performance is achieved for services in PFI and non-PFI service contexts. The focus of the

research was placed particularly on ‘soft services’ in a schools context, and particularly on cleaning and catering services. The experience of managing ‘hard services’ (i.e. construction and other such specialised projects) would also be examined from the data collected and would include small building maintenance jobs and large building projects. The comparative element of the research would be used to help understand what is distinctive about the procurement approach respectively of PFI schools and non-PFI schools. This would contribute to explaining outcomes under the two types of procurement. The research would seek to examine whether there are any similarities or differences in the variables affecting the two types of procurement and would assess the implications for government procurement policy.

In light of the literature review, three key research questions were defined for the proposed investigation as follows:

1. How effective are the PFI contract mechanisms in supporting the public sector’s negotiations for services?
2. How do outcomes compare between PFI and non-PFI procured contracts? What are the similarities and differences between PFI and non-PFI procurement?
3. What external environmental factors affect success in service negotiation regarding schools?

The first research question would seek an understanding of which governing mechanisms within the PFI contract are effective and which are ineffective in negotiation from the schools’ and local authorities’ perspectives. In order to answer this question, data would be needed on what contract mechanisms exist under PFI and non-PFI procurement. There would need to be an analysis of how PFI contract mechanisms work in practice and an assessment of their effectiveness in leading to the desired outcomes for the public sector client. Research question 1 would also focus on effectiveness in relation to value-for-money. As previously discussed, value-for-money is defined by the National Audit Office as a combination of three criteria: economy, efficiency and effectiveness: economy in relation to minimising the cost of resources required to produce the services; efficiency with regards to using resources in producing outcomes; and effectiveness as measured by the difference between intended and actual outcomes.

The second research question would require data collected for the previous question and also on the contract mechanisms under non-PFI procurement in order to assess how outcomes are reached under this procurement method. Using the analysis from the previous question, a comparison would be made to identify whether there are similarities and differences between PFI and non-PFI procurement methods. With this data, the question of how and why service performance differed, or in other ways is similar, would be examined. The third research question would investigate what factors affect service performance, other than the contract design and governance structure in PFI and non-PFI infrastructure projects. These factors could affect the level of uncertainty in the operational period of contracts and perhaps imply the need for renegotiation in both forms of procurement.

In undertaking analysis on these three research questions the theoretical frameworks discussed in Chapters 4 would be drawn upon to help explain why contracts operate as they do and to compare outcomes with those reported from other studies in the published literature. The research would also examine whether any other outcomes were achieved which were neither predicted by theory nor reported in the published literature and consider the reasons for such unanticipated results.

6.3. Research design

The ontological position of 'objectivism' was adopted when analysing data. This has been defined as a 'position that asserts that social phenomena and their meanings have an existence that is independent of social actors' (Grix, 2010, p. 61). For this research, the categories of social actors, institutions and forms of procurement are assumed not to be in a state of revision. Their definitions are assumed to be fixed and unchanged by social interaction. Following from the ontological position is the epistemological approach adopted for the research.

The critical realist paradigm assumes that the social world is made up of structures with internally related elements. The causal powers of these elements combine and their influence is emergent (Sayer, 2000). That these internally related elements have causal powers means it is possible to identify causal mechanisms and make causal statements (DeVaus, 2001; Sayer,

2000). Critical realism allows for interpretation of events as well, because all causality from the elements is easily observable (Grix, 2010, p. 86). Therefore, research methodology needs to be designed to capture causation properly by acknowledging what elements exist and their role in causing outcomes.

Critical realism focuses on how the mechanisms and conditions of a structure lead to an event, to understand cause and effect, and why this happens. According to Grix (2010) critical realists assume there is a 'structured' reality, which requires an approach allowing for the 'interpretation of causal links not always observable to offer a fuller explanation of an event, object…etc' (Grix, 2010, p. 86). This is in contrast to the positivist paradigm which believes that in the social world, there are patterns, causes, and consequences and it is possible to make causal statements and seek to be objective in research (Grix, 2010). Furthermore, the positivist epistemological approach emphasises explanation rather than understanding of the social world, through 'observational and verificational dimensions of empirical practice' (Grix, 2010, p. 81). The idea of exploring causation is different for realists because of the belief that not all of social reality is observable. For example, the judgement and decision-making, ideas and relationships of the actors involved in procurement might not all be observable. How causation in the social world is studied is captured in the following statement: 'What causes something to happen has nothing to do with the number of times we have observed it happening. Explanation depends rather on identifying causal mechanisms and how they work and discovering if they have been activated and under what conditions' (Sayer, 2000, p. 14).

The critical realist approach, therefore, takes into account the changing social world in which the structure of the PFI contract operates. For example, the PFI contract design is made up of a variety of mechanisms, with contracts around the country managed by different councils and stakeholders. The PFI contract is also operational within an external environment made up of economic, political, social and environmental forces that change over a thirty-year period. Therefore, outcomes of PFI contracts are contingent on a wide variety of factors. As the social world is an 'open' system and conditions can change, what happens in PFI contracts could go in many different ways.

6.4. A case study approach

As this research would be explanatory in nature, a case study method with comparative elements was considered the best approach to the investigation. In order to understand those factors influencing procurement, the research has sought to capture the stories of how outcomes were reached in operational contracts. This has involved collecting data on the role of different institutions, policies and stakeholders acting on behalf of the public sector client. Data on relationships and on communication between contractors, employees and employers that influenced service performance, has been collected as well.

The case study approach is most useful for the research because it 'investigates a contemporary phenomenon within its real-life context' in instances 'when the boundaries between phenomenon and context are not clearly evident' (Yin, 2018, p. 15). Stake (1995, p. 17) argues that case studies enable issues to be explored in depth because they are innately complex and 'intricately wired to political, social, historical, and especially, personal contexts'. By exploring issues through a case study, this would 'help us expand upon the moment… in a more historical light…recognize the pervasive problems in human interaction'. The research project has assumed that, in order to understand the situation and environment in which contract negotiations take place, the unique conditions of PFI contracts need to be examined. An explanatory case study approach would be appropriate as the study would be seeking to achieve fuller explanations of the phenomena that arise in operational PFI contracts.

Collecting data on institutions, regulations, contract design, social actors and factors in the external environment helps us to understand the causal impact of all these elements, how they can combine and influence the outcomes. The research for this thesis is based on the argument that, incorporating a comparative approach to case studies would boost the ability of the analysis to provide fuller explanations, as it would show what is and is not unique about different forms of procurement.

Addressing the research questions calls for elements of both deductive and inductive approaches and therefore involves 'retroduction' – 'the interplay of induction and deduction' (Ragin, 1994, p. 47; Grix, 2010, p. 115). It would involve elements of deduction as existing contract theories act as a way to generate ideas of what could be taking place in the procurement

process. But this would go hand in hand with induction as the analysis would allow conclusions to be drawn from observations recorded in the dataset.

The case study focus here is on the education sector, where PFI contracts have been widely used (NAO, 2009). There are more than five hundred schools in Britain with PFI contracts out of some twenty-four thousand schools in total (Audit Commission, 2003). This provides a large population of schools from which to sample for each category. Schools are a specific unit of analysis because that is the unit for PFI contracts that bundle soft services into the contract, which was of particular interest to this study, whereas other sectors (such a waste procurement) do not. Most school contracts are also operational for several years. This is advantageous because contracts that have been operational for a long time are more likely to include instances where the public sector and their contracting partners have needed to negotiate matters not covered in the contract. Also, PFI and non-PFI schools are comparable, as pupils follow the same national curriculum and have the same needs from the building, regardless of the form of procurement. Developing a story of how the public sector and PFI contractors have had to work through uncertainty is easier the longer the contract has been running, as there would likely be significant changes in the external environment during such periods of time.

The research has focused on the state school sector because that sector is linked to local councils and to central government, and as all such schools face similar funding criteria, regulations on buildings and procurement. The types of state schools that might have been included in the sample are primary schools, secondary schools and further education colleges, as there are PFI and non-PFI in all three such categories. Schools and colleges in the private sector have not formed a part of the dataset because they have more freedoms and do not receive their funding from the government. They also have more control over the purposes of their school, which pupils they select and the size of their school rolls, which would likely have a significant bearing on the requirements of the building, and therefore potentially impact procurement.

The internal and external validity of the case study was considered when designing the methodological approach. Internal validity would involve ‘seeking to establish a causal relationship, whereby certain conditions are believed to lead to other conditions, as distinguished from spurious relationships’ (DeVaus, 2001, p. 234-235). This suggests that to achieve internal validity, a case study should provide the ‘context’ of a phenomenon, to give a

'whole, not parts' of an explanation of how causation is achieved: 'The case …must be seen within the context in which it exists. By examining the context fully, the researcher can gain a fuller and more rounded picture of the causal processes surrounding a particular phenomenon.'

The research also involved collecting data on the context in which schools procure. This meant understanding the regulations, guidance and contracts that the schools work under and the institutional relationships, including how local authorities and central government influence their choices. The phenomenon of negotiating procurement was analysed in this context to provide an account of events occurring during operational contracts. The aim was to achieve as far as possible what DeVaus (2001, p. 236) argued to be a good case study: '[Case studies] achieve explanations by building a full picture of the sequence of events, the context in which they occur, and the meaning of the actions and events as interpreted by participants and their meaning as given by a context'. Causation in the procurement process would be analysed using data analysis tools such as frequency of words used in documentation and in interviews, and theme analysis to develop explanations, as described later in the chapter.

External validity would be a matter of seeking to show whether findings could be generalised beyond the dataset (DeVaus, 2001). This is potentially problematic when a single case study approach has been adopted. Yin (2003, p. 37) has explained the purpose of generalisation as follows:

'The generalisation is not automatic. However, a theory must be tested by replicating the findings in a second or even third (case)…where the theory has specified that the same results should occur. Once such direct replications have been made, the results might be accepted as providing strong support for the theory, even though further replications had not been performed.'

Yin (2018) has also pointed out that arriving at analytical generalisations is difficult without answering the 'how' and 'why' questions. Theories would be used as a guide rather than tested repeatedly. However, analysis from such data could still contribute to the body of work on existing theories on contracts. The data would consist of many types of schools within the educational sector case study, thus providing comparative elements. Looking for consistency in experiences across many schools would thus perhaps improve the external validity of the findings.

Importantly, various ethical issues also need always to be considered when collecting data. In procurement-related research, for example, the prices paid for goods and services represent commercially sensitive data, which schools, institutions and companies would not necessarily be willing to declare for various reasons. School procurement has many different stakeholders with different interests. Details of relationships, experiences of negotiating, opinions on motives and service performance could affect the reputation of those mentioned and could have an impact on trust between parties were it to become publicly available. Therefore, the anonymity of the interviewees and everyone mentioned in procurement was necessary for the research.

The two school groups were determined by the characteristics of the schools. The PFI schools were defined as having the following three features:

1. Schools that received PFI credits to be either newly built or refurbished were considered as PFI schools. PFI credits were given by central government in such local cases for using in the PFI procurement process. The funding and decision making behind the process of developing PFI schools would be unique to this group.
2. The PFI school group followed a Design-Build-Finance-Operate (DBFO) model. This is different from a state-funded school, where the local authority would typically undertake all those four functions or would limit private sector involvement to designing and building the school. This would also be different from other public-private partnerships in education as they would exclude include both the financing and the operation of the building.
3. PFI schools give ownership rights of the building to the private sector during the operational period and the public sector is the client. Services included in the contract would be provided by one supplier and the contract would last for up to thirty years.

In the non-PFI category, there is a wide variety of schools. As this research was concerned how private sector provision compares with state provision in terms of outcomes, it was appropriate only to include schools that were entirely state-funded, meaning that all funding for the schools would come directly or indirectly from central government. The schools that fall into this category include: maintained schools, faith schools and academies. Maintained schools, also known as community schools, and faith schools are controlled by the local authority. Their characteristics are as follows:

1. Maintained schools are defined by the Education Act (2002) as being funded by the Local Education Authority and governed by a body comprising parents, school staff, and local education authority governors. These schools must follow the national curriculum and their buildings are owned by the Local Education Authority.
2. Faith school buildings are owned by their religious authority. They are also required to follow the national curriculum. However, as they are influenced by religious authorities, they have some freedom to do things differently from maintained schools. This would include admissions policy, how they teach religious studies and also differences in how they might procure services.
3. Academies are independent of local authorities and can have different curricula from maintained and faith schools, despite receiving funding directly from central government rather than through local authorities. This gives them significantly more freedom in procurement, with the local authority having no influence on whom they choose as their suppliers.

Data were collected from primary and secondary schools. Secondary state schools are either comprehensive schools or grammar schools, and both were included in this research. Most school PFI contracts were for primary and secondary schools, and therefore the non-PFI school comparator group needed to mirror that. As the research project was exploring factors contributing to outcomes of school services, it was also appropriate to interview schools in diverse circumstances, to ascertain what factors might have an impact.

6.5. Research methodology

The methodological approach chosen was qualitative in nature. Informed by the literature, the research used interviews to collect data from public sector clients and contractors/ employees, on how contractors responded to schools' requests, and on the working of contractual mechanisms in practice. Information was also collected on the day-to-day relationships between a school and its staff and how regulations, contract mechanisms and the external environment affected procurement, staff behaviour and school strategy. Other researchers have highlighted various potential disadvantages of using interviews. For example, there could be poor recall of experiences leading to inaccuracies in the data, making it hard to establish reliable patterns and draw robust conclusions. Another potential problem is potential bias in responses,

with interviewees perhaps saying what they think the interviewer wants to hear (Yin, 2003, 2018). Again, this would cause problems with understanding true relationships between factors and understanding the complexity of interrelated elements within forms of procurement. However, in this instance the interviewees would already be much involved in managing PFI and non-PFI contracts, therefore making the recall of events less difficult. Given that the research was interested to understand how contractors might behave opportunistically and whether responsiveness to their clients' demands was positive or negative, the interviews would be confined to the clients (the school staff only). Moreover, the potential problem with not interviewing contractors as well was mitigated by discussing with client staff how prices were reached, whether they considered that they had achieved a competitive price, and how they perceived contractor behaviour during operational contracts.

To support an understanding of the regulations within which schools were operating, and the information and guidance they had available, documents from the Government and other relevant institutions supporting school procurement staff, were collated and analysed. The source of such documents, their purposes, and the audience for whom they were intended, were taken into account in the subsequent analysis. Such data was also triangulated with the information provided through the interviews to understand the regulations under which procurement staff were working, and the quality of the guidance that they had been given to support their work.

All the interviews were conducted anonymously to protect the reputation of the individuals, the schools and the companies involved in procurement. The interviewees were sent an introductory information sheet on the purpose of the research project, ahead of interviews being conducted by telephone, with a tape recording made with each interviewee's prior agreement. Afterwards, interviewees were sent a transcript of their interview and asked to give their consent to use of the information they had provided. As indicated above, however, the names of the interviewees and their institutions have been withheld and do not appear in this thesis to protect their anonymity.

6.6. Data collection

6.6.1 Elite interviews

As mentioned earlier, interviews were the main source of data. The people approached for interview were those directly involved in managing school PFI contracts and therefore those interviews have been defined as 'elite interviews' (Pierce, 2008). Interviews with 'political elites' are defined by Pierce (2008, p. 119) as 'people who exercise disproportionately high influence on the outcome of events or policies in your research area'. Elite interviews have not been specifically chosen as a tool by other researchers examining PFI contracts, and therefore this research offers a unique perspective. The advantages of elite interviews in the context of the research for this thesis are that they were able to capture the interviewees' experience of procurement and the process of how outcomes were being reached. Elite interviews were used in data collection because the researcher did not have direct access to the contracts themselves. Therefore, the author relied on the head-teachers, school business managers and local authority officers to provide detail on the contract design and governance structures. Elite interviews would also potentially be helpful in providing insight into the impact of changes in government policy as PFI contracts and policy have changed over the past twenty years. For instance, between 2000 and 2010, greater emphasis was given to improving 'partnership' between the two parties as PFI contracts became operational.

Interviewing procurement staff in the schools and local authorities about their experiences in working in operational contracts proved a valuable method of data collection in this research. Data on the costs of PFI contract services had already been collected in the course of other research (NAO, 2009; HMT, 2012; HMT, 2018) which consistently showed that prices for services under PFI contracts were above competitive market prices. Therefore, the emphasis of the research for this thesis was not only on the outcomes, but also on capturing the process of reaching those outcomes. The focus of the data collection was on hearing the narrative from interviewees explaining their experiences and their experiences and understanding of the factors influencing the contracts. The interviews would be semi-structured because the questions need to be guided not only by current ideas and theories of what happens in procurement but also with 'a certain degree of flexibility' to allow 'for the pursuit of unexpected lines of enquiry during the interview' (Grix, 2010, p. 128). Findings from

interviews with both PFI and non-PFI school staff would then be compared to highlight similarities and differences in their experiences.

The research developed a particular sampling approach to ensure representativeness. The interviewees from PFI and non-PFI schools were drawn from the same local authorities across Britain so as to control for possible regional differences in costs. It was felt that regions might vary in terms of the range of suppliers available to schools, and also with regard to the ability to recruit staff because of differing levels of local employment and transport accessibility. This in turn might then impact on the options, on negotiation power and on prices that schools could have to pay for soft services (NAO, 2008). Also, a good sample would need to have both PFI and non-PFI schools managed by the same local authorities. It would then be possible to assess how each such authority operated with regard to its particular policies, budget, and in relation to the priorities of local politicians, in supporting schools respectively under different forms of procurement. The level of central government investment might possibly differ by region; some schools might receive extra grants for being deprived areas. Demographics could also possibly play a role, as school buildings may vary in their ability to cope with the changing needs of the local population.

As indicated, the data collection phase of the research gathered evidence from public sector staff procuring services for schools. In the PFI school group, eleven interviews were conducted with practitioners. Two of the interviewees were local authority officers managing PFI contracts covering several schools and nine were either head teachers or school business managers of specific schools. The PFI schools were located in different parts of the UK, in nine different local authority areas. In the non-PFI group, interviews were conducted with practitioners of fourteen schools and with two local authority officers. Again, the interviewees were head-teachers, school business managers, school governors and a local authority officer, and again from different parts of the UK. In seven of the local authority areas, there were interviews with practitioners from both PFI and non-PFI schools. A total of twenty-seven interviewees, working in fourteen different schools, plus one interviewee from a charity managing a number of school academies, took part in the research project. All the schools were state-funded and eight of the schools from which interviewees were drawn were primary schools and six were secondary schools.

The interviews covered the particular contractual mechanisms used and the associated regulations applying when procuring services, in both PFI schools and non-PFI schools. All were conducted by telephone and recorded with the consent of each interviewee. They were all conducted between March 2016 and November 2019 and ranged from between fifteen and forty minutes in duration (with just two lasting less than twenty minutes).

Table 4: Breakdown of interviewees by category

	PFI schools	**Non-PFI schools**
Headteachers	5	4
School business managers/ procurement staff	4	10
Local Authority officers	2	2

The interviewees from the PFI group were asked about the contract mechanisms in their PFI contracts and their experience in using them in negotiations. They were also asked about their relationships with their contractors, how they addressed differences of viewpoint and the role that the local authority played in relation to the operational contracts. Each was also asked their views about performance in relation to soft and hard services, about the prices involved and on how satisfactory they had found the negotiation process (including what in the process had proved especially satisfactory and what especially difficult).

The interviewees from the non-PFI group were asked about the type of school they worked for and how soft services were provided (whether in-house or outsourced). They were also asked about the contractual mechanisms and about the governance structures were in place for operational contracts and how useful these were considered to be. They were also asked about procurement for both small repairs and major building projects and about their experiences of the arrangements for these. Additionally, they were asked about relationships with their contractors, and about the role of the local authority in their approach to procurement. Finally, they were asked about their satisfaction with performance in relation to soft and hard services

and with the prices being charged. The precise questions asked of all the interviewees are reproduced in Appendix 2.

Some difficulties were encountered with regard to obtaining agreements from some potential participants to be interviewed for the research, which inevitably affected the quality of the sampling. Since, typically, several PFI schools in one local authority would be covered by a single contract, only one PFI school in such an arrangement would agree to be interviewed. Nine schools in nine different local authorities took part in the interviews. As each was only one of a number of schools in the area; the responses given may possibly not have been fully representative of the group of local schools as a whole. Non-PFI schools were interviewed in seven of those nine areas, to facilitate comparison. The representativeness of the sample was probably improved by the fact that interviews covered schools from most parts of Britain (there being respondents from Scotland, Wales and the north, Midlands and south of England). A further possible weakness in the sample was that some of the non-PFI schools did not come from local authorities also with PFI schools. Moreover, the numbers of schools from each area were quite small and therefore, again, it was hard to know whether their experiences were representative of the wider population of schools. The decision to include a larger number of schools in the non-PFI school group than in the PFI group was made to ensure as much variety of school types in the sample as a whole, this included maintained schools, faith schools, and academies. Had the non-PFI group been reduced to the same size as the PFI group, it would have been impossible to capture the experience of all different types of non-PFI school.

6.6.2 Documentary analysis

Documentary analysis was also used to triangulate the data from the interviews. In particular, documents were collected to understand better the context in which the schools worked, in this context, taking account of the regulations and guidance from the central and local government. This helped to understand how well informed the public sector staff were of negotiations and how the operational processes and controls compared between the PFI and non-PFI schools. To this end, documents were collected from government websites to ensure credibility and authenticity. The analysis of documents also took into account the particular audiences for

whom they were intended, with interviewees being asked about their awareness of the materials and about how these had influenced their decision-making.

6.7. Method of analysis

As the research questions focus on processes and seek to explain 'how' and 'why' outcomes are reached, the analytical technique of thematic analysis and frequency of words or phrases would be particularly useful for the investigation. Hypotheses from existing contract theory would be used as a guide to see whether they might explain how particular procurement processes in PFI and non-PFI schools led to particular outcomes. The data collected from interviewees and documentation would be analysed through the lens of contract theory to gain insights into how soft and hard service contracts work in practice and why they would result in particular outcomes. Inspired by the literature on theory related to contracts, four approaches would be adopted and applied in the analysis of contracts for PFI and non-PFI procurement respectively:

Contractual incompleteness

Contractual incompleteness occurs when a contract fails to specify what should happen in all types of situations. More incomplete contracts create greater room for opportunistic behaviour and more complete contracts lead to less opportunistic behaviour because it is clearer what contractors need to do to meet expectations (Williamson, 1985; Goldberg, 1976). In Chapter 4, four features of incomplete contracts were introduced: contracts with loopholes; ambiguous contracts; those where additional work was required; and contracts that were renegotiated because the design was deemed inappropriate (Mansor and Rashid, 2016; Badenfelt, 2011; Hart, 1995; Tirole, 2009). Contractual incompleteness was chosen as a theme because it is always a potential issue for all contracts and the level of incompleteness determines the level of difficulty in managing an operational contract. Indeed, this is a problem that the PFI contract was particularly geared to resolve.

Asymmetric information

Asymmetric information would be a problem in contracts if one party has more information than the other party and can therefore exploit it. Examples of moral hazard in contracts include exploiting information on production costs and charging high prices in comparison with the

market. There could also be hidden actions, such as not putting enough effort into production to deliver services that the client wanted, if the client was unable to observe the effort. Asymmetric information is a theme in the literature on PFI contracts because it is seen as a significant problem. Therefore, the solutions that the UK government adopted to reduce its impact, such as collecting market information on costs would be examined for their effectiveness.

Relational contracting

The role of the relationship between the parties involved in negotiations would be a focus in interviews because according to both the academic literature and the UK government it would be a solution to the problems of incomplete contracts. The literature on relational contracting, as discussed in Chapter 4, has suggested this needed to be relied on when contracts became longer and more complex. MacNeil (1978) argued that it would be better to characterise the relationship between the buyer and the supplier as a 'mini-society with a vast array of norms beyond those centred on the exchange and its immediate processes' in long-term contracts. Relational contracting can take the place of contract mechanisms when contracts are incomplete. However, others have argued that, rather than being a substitute, relational contracting is complementary to contractual mechanisms. This is because both are needed to work through problems in long-term contracts and, when relational mechanisms become more complex, contractual mechanisms become more complex too (Poppo and Zenger, 2002). Furthermore, some have argued that the role of the relationship between two parties is very important in conducting a contract, while too much detail will discourage cooperation and encourage opportunism from the contractor because the contract displays a lack of trust from the buyer. It has been suggested by government policy and in the literature on managing PFI contracts that relationships play an important part, because PFI contracts are long and incomplete. One objective of the Best Value framework (1998) was to improve relations between the public sector and the private sector through resolving issues concerning the cost and quality of public services. The research for this thesis has sought to examine the role that relationships play in negotiations and has analysed how effective they are in helping the public sector to achieve its goals.

A Game Theory perspective on long term contracts

A game theory perspective was also considered to provide a helpful component of the analysis because it would potentially provide understanding of the impact of contractual mechanisms

on the PFI contractors' behaviour. Mechanisms normally written into PFI contracts to ensure value-for-money include benchmarking, market testing, and financial deductions. In the language of game theory, these were required by the UK government to act as 'credible threats'. Interviewees' experiences would be gathered to assess how such mechanisms worked in practice and the extent to which they were successful in acting as credible threats.

Thematic analysis of the data would be undertaken to examine causation, and whether the particular variables identified led to the specific outcomes predicted by those contract theories, in so doing, further testing the internal validity of the analysis and findings. Another analytical technique that would be employed was to assess the frequency with which keywords and phrases were repeated by interviewees when describing their experiences. Specifically, this approach would be used in analysing responses to questions on relationships with contractors, strategic approaches to negotiations, the role of the local authority, the effectiveness of contract mechanisms and opinions on outcomes. Evaluating the frequency of words would also be applied in the analysis of documentation, here in particular, to understand the types of guidance that schools were receiving from government.

The third research question pertains to the identification of factors that influence outcomes in school procurement. This would involve analysing the impacts of the external environment, and to this end, the PESTEL framework (Johnson, Scholes and Whittington, 2008) represented a simple, but useful tool. The framework categorises 'environmental influences' into six main types: political, economic, social, technological, environmental and legal', and would enable an analysis to be constructed in a helpfully thematic manner according to the six external environmental types and so highlight their influence on service outcomes. Factors such as changes in central government policy, the state of the local economy, or demographics, for example, could well have significant impacts on the delivery of services.

6.8. Limitations

The interviews would involve some twenty-seven participants. As the numbers of schools in each group was relatively small, (out of potentially hundreds of PFI schools and thousands of non-PFI schools), the data collected in the research might perhaps not be fully representative of the breadth of experiences of procurement in those groups. However, given the dearth of

other, published, research on the subject, and the care taken in designing the data collection processes for this particular study, the over-riding view that was taken was that the information to be gathered through this relatively small sample, was likely to provide generally valid and helpful insights on the experiences of managing contracts and of the context in which school staff have to conduct their contracting operations.

For sure, it would have been interesting and illuminating also to have investigated the behaviours of PFI contractors and their sub-contractors during the operational period of contracts with schools, and to have interviewed such contractors and sub-contractors to understand their motivations and goals in the negotiation process. However, with the possibility of interviews with commercial suppliers being precluded (on commercial protection grounds), it would simply not be feasible to investigate the ease or difficulties for suppliers in adapting to their clients' needs during the contract, nor what factors particularly shaped their decision-making as contractors in the negotiation process.

6.9. Summary

This chapter has discussed the design and methodological approach to the research and associated data collection. That data would be focused on how and why results in procurement are reached and for which a critical realist approach to understanding causality would seem most appropriate for the particular research questions that had been established. As this would be an explanatory case study set within the school sector, it was considered important to give particular attention both to the context for procurement as well as to the comparative dimension of analysis between PFI and non-PFI schools in examining experiences under the different forms of procurement and contract design. Alongside the documentary analysis on the regulations governing contractual and operational practices, the in-depth interviews were to be used to establish precisely how the procurement process was operating in practice and to identify other external environmental factors that were having an impact on the service outcomes being achieved. The key findings from the research are presented in the next two chapters (Chapters 7 and 8). The first of these chapters summarises the characteristics of PFI contracts (together with the context in which they operate) and those for non-PFI schools to provide the basis for the comparative analysis. Then in Chapter 8 consideration is given to the key factors from the external environment that were identified as influencing service outcomes.

7. Findings

This chapter analyses the findings from the data collected to address the three research questions. Firstly, the chapter describes the procurement context in PFI schools by defining the regulations, contract mechanisms and relational contract mechanisms for PFI contracts. As indicated earlier, these are derived from UK government documentation on PFI contracts but the chapter summarises the findings from the interviews with respondents from PFI schools. Secondly, the procurement context in non-PFI schools is summarised, together with the findings on the contract mechanisms from the interviews with respondents from such schools.

7.1. Data collection from PFI schools

This section discusses the data collected from PFI schools to address Research Question No. 1 concerning the effectiveness of the contract mechanisms in helping the public sector to negotiate with the private sector. Here, the interviews undertaken focused on the contractual and relational mechanisms that the interviewees had at their disposal in negotiations. Opinions were gathered regarding the performance of services in non-PFI schools in order to understand how it compared to PFI school performance. This section summarises the contractual and relational mechanisms in place and the interviewees' views on the performance of services under PFI contracts. The interviews covered respondents' experiences in procuring cleaning, catering, small repairs, and major building works.

7.1.1 Documentation relating to PFI schools

The Standardisation of PFI Contracts (SoPC) (HM Treasury, 1999, 2002, 2004, 2007) was the most relevant document used to understand PFI schools. The document was devised as a guide to local authorities on how to write a PFI contract, including the contract mechanisms to include to manage service performance during the operation of a PFI contract. Different versions of the document were issued between 1999 and 2007. It was first published in 1999 and a second version was published in 2002. SoPC version 3 was written in 2004 and the final version, SoPC version 4, was written in 2007, before there was a change in contract design in 2012 to PF2, for which separate new guidance was released. With regard to SoPC version 4, documentary analysis of the interview data showed that several keywords were used multiple times throughout the document, this indicating the importance attached to them.

Emphasis in the guidance is placed on financial deductions and benchmarking to manage the performance of PFI contractors during the operational period. Penalties, financial deductions and benchmarking are mentioned frequently and there is extensive discussion in the document of how to use them. In contrast, although outcome specification is suggested for managing soft service performance, there is less guidance on this than on financial deductions. SoPC version 4 provides limited guidance on how to manage relationships. Monitoring, auditing, and meetings are mentioned, but the document does not include practical guidance on implementing such mechanisms.

7.1.2 Contractual mechanisms for negotiation of PFI school contracts

Data was compiled on the available mechanisms for managing soft service performance under operational PFI contracts by combining the analysis of PFI related documents with the interviews on PFI contractual mechanisms.

A key initial finding here concerned the extent of variation in design among the PFI contracts for schools. Those schools that had commenced their PFI contracts for school building when the approach was relatively new, mostly around the year 2000, had contracts in which 'soft' services were bundled together, except for school meals. However, schools with PFI contracts commencing a decade later, (i.e. circa 2010) all include school meals within their contracts along with the other 'soft' services. In such cases, the PFI contractor is responsible for all services (other than teaching) provided for the schools, whilst those served by the earlier PFI contracts have to deal with multiple providers.

The differences in the bundling of services within PFI contracts has led to differences in contract and service management. For example, one school in the sample has a separate catering contract and re-tenders catering every three years. In contrast, the schools with PFI contracts including catering, benchmark catering costs against the market every five to seven years. As a result, those schools in the earlier wave of PFI can be said to be benefiting from greater competition than their later (second wave) counterparts. The PFI contract is written to

help the public sector client manage performance in a long-term contract with one contractor and with no alternative supplier to turn to. Below are the mechanisms included in a typical PFI contract.

Mechanisms for negotiating changes in contracts:

In the interviews with local authority officers and school staff, detailed information was gathered on the design of the individual PFI contracts, the scope for review/renegotiation and on the various mechanisms that might be used in such negotiations during their period of operation. Several formal mechanisms were discussed with interviewees as usually being operable within PFI contracts. It was explained by interviewees that these were designed to incentivise the contractors to provide services at market prices, despite the absence of competition following from the 'bundling' of 'soft' and 'hard' services.

Financial deductions for poor performance:

The most frequently used contract mechanism was financial deductions for poor performance. SoPC version 4 suggests that the payment mechanisms should be designed to reflect the level of service:

'For a payment mechanism based on availability with an overlay of performance deductions, this will mean linking payment to both the availability and the quality of the Service'

(HM Treasury, 2007, pg. 48).

'the payment mechanism should adjust for sub-standard performance, and deductions should reflect the severity of failure. Thus, no Service should lead to no payment, but proportionality is important and therefore a minor failure should cause a minor deduction'

(HM Treasury, 2007, pg. 48).

The document suggests a number of ways to calibrate payment to level of service. Output specification should be linked to the payment mechanism. There should be weightings given to deductions for poor performance and unavailability. If there are repeated widespread

failures, a ratchet system of penalties should be put in place to resolve systemic failures. For example, if something was not cleaned up within a certain period specified in the contract, there would be a deduction that month. If something was not available over a long period that affected the use of a classroom, there would be monthly deductions that would increase in severity after an initial time until it was resolved. There should be no fixed element of payment that the PFI contracts receive irrespective of performance; but a time period is given to rectify mistakes.

Output specification:

Government documents provide guidance on output specification (HM Treasury, 1998, 2007). These documents state a preference for PFI contracts to agree output specification rather than input specification, because of a concern that input specification may hinder innovation in the production process. As an example, PFI contractors need to meet output specifications over standards for cleaning and catering. However, they have flexibility as to how they produce services to reach these specifications. According to government guidance, output specifications should include objectives and performance requirements and describe who is responsible for aspects of service delivery and what constitutes compliance (HM Treasury, 1998). They should also be written in a way to encourage innovation in production methods (HM Treasury, 1998, 2007; Javed, Lam and Chan, 2013).

Benchmarking and market testing:

Government documents provide varied guidance on how to manage price variations in PFI contracts. One mechanism they advise on including is benchmarking and market testing. In the benchmarking process, the PFI contractor compares the costs of their sub-contractors to the market price for the services they are providing. If there is a difference, prices charged to the local authority should be adjusted accordingly (HM Treasury, 2007). For example, PFI schools in one council had an agreement that if the price of services was five percent higher than the market price, this would be deducted from the price of contracts going forward. Conversely, if the price of the services was more than five percent lower than the market price, the difference would be made up in the next five years.

In the market testing process, the PFI contractor should retender a service to determine its market price. If there is a difference in price, this should lead to either an adjustment in prices charged to the local authority or a change of subcontractor (HM Treasury, 2007). The interviewees in PFI schools noted that their PFI contracts state that contractors have to demonstrate 'value-for-money' when charging prices for any changes or repairs. For example, in one contract the contractor has to give quotes from other providers to justify the price they are charging for small repairs. If the contractors charge a higher price than average, this would have to be justified with a reason. Within the council, there are officers to check whether prices for small repairs are at market price and are there to challenge on behalf of the schools.

Non-financial mechanisms to improve performance:

There are non-financial mechanisms that the local authority can use to encourage PFI contractors to improve their performance (HM Treasury, 2007). The local authority can give warnings to the contractor over its performance if it is persistently poor despite a range of financial deductions implemented. This can act as a deterrent as it can affect their reputation in future bids for PFI contracts. In the bidding process, potential buyers can ask questions as to whether they have received warnings or penalties, deterring buyers if there is a significant history of dispute and poor performance with local authorities.

It is also possible to use legal action and take disputes to court if the contractor is not fulfilling its obligations. The final non-financial option that the local authority can use is to terminate the PFI contract. Reasons for such an action are varied but include persistent poor performance, a breach of contract which adversely affects the client, abandonment of the contract by the PFI contractor, the inability to provide services on the agreed date or over an agreed period, or a breach of the PFI contractor taking out required insurances for risks (HM Treasury, 2007).

As the contract with one supplier typically runs for twenty-five to thirty years, all interviewees said there was a structure in place to discuss the performance of services regularly. There were a number of relational mechanisms in place:

Helpdesk:

All the interviewees from the PFI school group described having a helpdesk on their site, which they are required to use to indicate any problems that need attending to. This creates a record for both parties of all problems, repairs and changes made in the operational phase, to improve transparency and accountability. The PFI contracts specify that contractors have seven days to respond to any requests related to cleaning and small repairs that need to be addressed within a month.

Regular meetings:

Interviewees involved in PFI contracts described their communication process with their contractors. Monthly meetings between the contractors, school representatives and council officers take place. These are used to discuss any concerns over performance, how to manage incoming changes and to manage disputes. The council officer's role is to act as a mediator between schools and contractors. The local authority can also provide support for the schools in disputes if justified, with examples given including information on prices, audits and legal advice.

No informal communication tools were mentioned by the interviewees from the PFI group. The council officers 1 and 2 managing PFI contracts stressed the importance of keeping good relations between parties to achieve goals easily. Keeping good relations was seen to include explaining in depth why each party is choosing to do what they are doing. They reasoned that developing goodwill, a sense of shared responsibility for outcomes and passion for the project helps to achieve goals.

Request for change process:

PFI contracts outline the governance processes to be used in uncertain situations. If headteachers want significant changes made to a building they have to make a written request for change. This would have to be approved by the local authority and put forward to the contractor. Once the PFI contractor offers a price for the change, the school can choose to accept it or not. If the school is willing to take the offer, the change should be implemented, documented, monitored and paid for. If a headteacher is unhappy with negotiations with the

contractor, there is a dispute process for challenging prices and services proposed (HM Treasury, 2007).

7.1.3 Performance of soft services in PFI schools

Research question one asked which contractual mechanisms in a PFI contract the public sector finds effective and ineffective in negotiations in PFI contracts. When the interviewees discussed the quality of cleaning, the majority of the schools believed the quality was high and the rest thought that the cleaning was either low quality or that the standard had varied over time. The opinion of the quality of catering was less positive. A minority of schools did not have catering as part of the contract. Half of the schools with catering as part of the PFI contract thought that school meals were of high quality. The other half of the schools thought school meals were of low quality. The PFI schools which had outsourced catering were all very pleased with the quality of the school meals.

7.1.4 Procurement of small repairs in PFI schools

None of the interviewees from PFI schools were satisfied with the cost of small repairs. Headteachers were always able to challenge the price and the PFI contract requires that the contractor justifies their price. However, across all the different PFI contracts, they seldom received good results and contractors rarely changed the price of their work. Prices were often justified by risk models developed for making small repairs. Many interviewees explained to me that they either had to pay a high price for work or it would not be done. Many interviewees managing different PFI contracts provided examples of negotiating with their contractor over refurbishments and were deeply frustrated over how long it took to agree on the project.

The amount of freedom that public sector clients had in choosing their supplier affected the price competitiveness of small building repairs. All PFI schools had no freedom to select different suppliers to do small repairs and could only use their PFI contractor. PFI schools were rarely satisfied with the prices they had to pay, though school staff did say that the local council challenging prices for small repairs with market information improved negotiations and therefore improved price competitiveness.

Opinions differed over the effectiveness of the relationship between the PFI contractor and the public sector to deliver outcomes for small repairs. Council officers were more optimistic than school staff regarding what could be achieved. Council officer 1 said that contractors 'cannot afford to have a bad relationship' with them. They said historically there had been poor relations between the PFI schools they manage and their PFI contractors, which had been costly to the contractors. Some interviewees highlighted examples of the contractor occasionally doing small repairs for free to improve the relationship and increase goodwill between the parties. They argued it was not in PFI contractors' interests to be opportunistic and charge too much for changes to the building. Council officer 1 suggested the contract itself was a starting point for discussions, although the relationship and level of communication was a more significant driver.

7.1.5 Procurement of major building projects in PFI schools

Some PFI schools had an experience in procuring large building projects. All of these interviewees were unhappy with how these projects progressed and thought that the end result did not entirely meet expectations. PFI schools were most concerned with the cost of the projects. Interviewees said that PFI contractors would argue that any changes to the school meant a significant change to the life-cycle cost to justify high prices. For instance, PFI school interviewee 1 gave an example of how a request to add two extra windows led to a significant increase in life-cycle costs:

'It looks like they are charging £1,200 a year on cleaning but when I costed that over the twenty-five years it is ridiculous what we are paying. So, in the end, two very small adaptations of two extra glass screens were going to cost the taxpayer £98,000 over twenty-five years.'

All the examples of negotiations on major building projects involved lengthy discussions on how this would change the cost of the life cycle of the building. The quotes provided by the PFI contractors were high in comparison to the market price because they argued it would significantly change the cost of maintaining the building. Council officers 1 and 2 and school staff in all the different PFI contracts faced the options of either not going ahead with the work, paying a large sum of money for the project, or challenging it through a legal route. Most of

the contract officers and the school representatives said that if they could not accept the price offered by the contractor for a repair or change and the contractor was not willing to change their stance, then the work would not be done. The decision of whether or not to accept the price is left to individual schools, not the local authority. For example**,** PFI school interviewee 1 argued that if the work does not go ahead, the school has more to lose from it than the contractor, so it does not matter to the contractor whether a change requested from a school goes ahead:

'…in some ways, if they didn't do it they hadn't lost out at all. I would have been the one that has lost out because I didn't get the change in the school that I wanted. We would have lost out in the long run. I don't think they would lose out in any way because if it didn't go ahead, it didn't go ahead. It made no difference to them. So, I think they think if something like that goes ahead, they are going to get something out of it.'

There was an example of another school being able to negotiate better terms by simply asking for some of the work to be taken out of the contract, which their PFI contractor agreed to after two years of negotiations. The school managed to challenge the proposed price offered for requested changes to the structural building, with the support of the local authority and their understanding of the PFI contract terms and legal advice. PFI school interviewee 1 said:

'Basically, just wanting break downs really, because it comes down to the ongoing costs and change of use really. And their experts were coming up with something absolutely ridiculous, something like additional cleaning charges for the little bits we had added on, so I kept fighting it. In the end, we got down to about half of what they had originally said…It took eighteen months to two years and it was for two small pieces of work which didn't take more than two weeks to do.'

'I didn't really go back to contract at all…I do work with local authority on this too…County were very much backing me up, I think they wanted to use me as a test case. But actually, if you can take some bits out of the contract, which is what we ended up doing, we took the cleaning of those areas out of the contract. Then they couldn't put up the value on all the other bits because they had already quoted me the other bits.'

This thesis would argue that the tactics that were used suggest that taking services out of the contract gave control back to the headteacher, allowing them to make use of competition in the market. No existing tools in the PFI contract helped the school to achieve changes to the building at a competitive price.

7.2. Findings from non-PFI schools

This section turns to the data collected from non-PFI schools over how well their procurement strategy works in practice. Research question two asked how outcomes in terms of prices and quality of services are compared between PFI and non-PFI schools. Interviews illustrated the options that different types of non-PFI schools have available to procure services and the regulations they needed to work under. The interviews undertaken focused on the interviewees' opinions of the performance of services in non-PFI schools, to understand how it compares to PFI school performance. School staff from fourteen schools and two council officers took part in the non-PFI school group. Discussions covered procurement of cleaning, catering, small repairs and major building works.

7.2.1 Types of non-PFI schools

Interviews with school staff from non-PFI schools and information from the Department for Education website revealed central government regulations that applied to all schools, and some processes that are different across various local authorities and types of schools. Non-PFI schools have several choices regarding procurement, rather than being in a long-term contract with one supplier. However, there are regulations and processes that shape the procurement and management of services, and these are examined in the next section.

Types of schools

As mentioned earlier, non-PFI schools vary significantly in terms of status and associated regulations. Maintained schools operate under the control of the local authority, and therefore have to abide by their rules. Local councils support maintained schools in a number of ways in procurement. Typically, a council compiles a list of suppliers for the schools to use for certain services, such as plumbers and electricians, so they do not need to investigate the market

themselves and this reduces their responsibility (Department for Education, 2018). A third of the non-PFI schools interviewed were maintained schools.

Faith schools have a different relationship with the local council. The buildings of many faith schools, particularly Catholic and Church of England schools, are owned by the local religious authority. Faith schools receive funding from both the religious authorities and the local authority. The religious authority that owns the land of the faith school provides a list of approved suppliers that the school can use for work relating to the main building, rather than the local council. The council has significantly less involvement with faith schools, though the faith schools interviewed said they could get advice from the council if they wanted to. A third of schools in the non-PFI group were faith schools.

Academies are stand-alone organisations which do not have involvement with the local authority. They receive funding direct from central government and have complete freedom to procure services without intervention from any other body. This means they have more freedom to choose their supplier in every area of procurement, but it entails greater responsibility because they need to find suppliers themselves and investigate who is appropriate (Department for Education, 2018). Most academy interviewees were business managers of academies and one interviewee was part of a finance team in a charity that managed a chain of academies.

The interviewees revealed that the status of the school affects the freedom they have to pick their supplier. This in turn affects the amount of competition for services supplied. If the schools do not have academy status, there are some restrictions on who they can choose, resulting in potentially not having access to the whole market of suppliers. However, the choice is not as restricted as under PFI contracts. The varying levels of freedom may have an impact on outcomes.

Choices in procurement methods in non-PFI schools

In state-funded schools, the school management team has a choice in procuring non-teaching services, such as cleaning, catering, and building work by either employing in-house staff or

contracting out services. However, they took advice from the local council on contractors for small repairs that their portering team could not do and sometimes had to choose from a list of council approved suppliers. In all types of state-funded schools, the management team has the freedom to choose who they employ to deliver cleaning, catering, and small repairs. They have full control to search and select contractors or in-house staff. However, the capacity to choose contractors to do major refurbishments depends on the status of the school. For faith schools, they have to choose from a list of contractors approved by the religious authority that owns the building. For example, a Catholic school interviewed needed to use contractors approved by the diocese who owned the building.

In-house staff are employed by the school through the council to deliver the services. The staff work directly for school management; therefore, the school is responsible for their performance management and training. The costs of employing in-house staff include paying for salaries, pensions and training. As performance is managed by the school, they can choose how they want to train staff and when to put them on an action plan. The school also determines the meal plan. The school business manager typically has monthly meetings with staff.

Schools that use contractors for cleaning and catering typically have a contract that has an output specification agreed by both before the beginning of the contract. Cleaning and catering staff are managed by the contractor rather than directly by the school. Staff performance is the responsibility of the contractor, not the school. Therefore, decisions overtraining and improving performance through action plans are not in the hands of the school. All schools using contractors had them on contracts that lasted three years. There were variations in contracts between state-funded schools that used contractors. Some non-PFI schools had break-out clauses where the school or contractor could decide to terminate the contract in the middle of the operational period. Other non-PFI schools had penalties written into the contract in case of poor performance. The school management had regular meetings with the contractor about service strategy rather than directly with the contractor’s staff.

7.2.2 Documents relating to procurement in non-PFI schools

The central government provides regulations on how schools should procure. The procurement approach depends on the size of the project in terms of the whole life cost of the project, which the Department for Education (DfE) divides into three categories: low-value purchases under £10,000, medium-value purchases between £10,000 and £40,000 and high-value purchases of above £40,000. The DfE also sets out how schools need to procure to comply with EU law. It is a requirement that if the whole-life cost of a project is above £164,176 then it needs to be advertised in the Official Journal of the European Union. There are examples of contracts for low-value goods and services on the 'Buying for Schools' website (GOV.UK 2020).

Schools have several bodies to turn to for advice and support on procuring goods and services. The central government, through the DfE, provides advice on their website (GOV.UK 2020) regarding the best ways to buy for schools. There is advice on how to tender a contract, encouraging competition in choosing suppliers; and how to write a contract, specifying what content should be included. Examples of good quality documents are provided, including a contract for goods, a contract for services, an 'invitation to tender' to suppliers, and letters to successful and unsuccessful tender applicants. They are also examples of timelines for low, medium and high-value projects.

There are many organisations which can help schools develop frameworks for procurement once they have agreed their specification. Such organisations include the Central Buying Consortium, Crown Commercial Services, and the Crescent Buying Consortium. The website 'Buying for Schools' defines a framework as:

'... an arrangement that a 'contracting authority' (e.g. a local authority or a public sector buying organisation) makes with suppliers of goods, works or services. It sets the terms under which you can make a purchase from a supplier during the lifetime of the framework agreement.' (GOV.UK 2020).

The DfE provides advice as to when to use framework agreements and when to get bids or quotes to save time and money for schools (GOV.UK 2020).

Local authorities support schools with advice, a suggested list of suppliers and they can also negotiate on their behalf for services. Local authorities often have their own rules over how schools should tender for work. For example, all interviewees said that their local council requires that schools collect at least three quotes for work worth above £1,000 before selecting a supplier. Local authorities are in a position to bulk buy services for many schools, which can reduce prices for individual schools. Amongst the interviewees, there were examples of councils doing this for catering and energy supply in schools. These procurement rules do not apply to PFI schools, who have to adhere to their contract and the council officers have to negotiate within that constraint.

Academies follow the 'Academy Financial Handbook' (Education and Skills Funding Agency, 2019). There are some rules that academies have to follow in line with other state-funded non-PFI schools. They need to comply with EU law and advertise high-value projects in the Official Journal of the European Union. Also, the financial handbook requires that they are internally and externally audited and that accounting rules apply to their finances. However, the local council does not oversee how academies run their procurement practices because academies are stand-alone organisations. Academies' relationships with central government differ from other schools. Academies directly receive their funding from the DfE rather than through the council. The Education and Skills Funding Agency needs to give authorisation for borrowing, write-offs, entering liabilities, compensation payments, gifts and disclosures above £5000 (Academy Financial Handbook, 2019). The Education and Skills Funding Agency also oversees academies' financial reports and governance structure. Academies need to comply with the HM Treasury 'Managing Public Money' (2018) guidance. The Academy Financial Handbook (2019) sets out advice on procurement through their website 'Buying for Schools' and 'Guidance on how to run an efficient procurement process', just as similar advice is available to other types of non-PFI schools.

In contrast to the SoPC4 document (2007), the Academy Financial Handbook (2019) does not specify the same level of contractual mechanisms to manage suppliers' performance. Academies are stand-alone institutions with no influence from their local authority. Schools seek this status to run the building as they wish and therefore decision-making in procurement

is more independent. This makes academies very different from other schools (both PFI and non-PFI) which have significant influence from local government in decision making. The Academy Financial Handbook suggests that the Academy should consider how they will manage their suppliers' performance as one of its three core functions of governance but does not detail how this should happen. In the document, there is no mention of performance failure, incentives or penalties. The words 'penalties' and 'financial deductions' are not mentioned at all. Benchmarking is only mentioned twice in the document and not discussed in depth. The discussion on the relationship and cooperation with parties only requires it to be even-handed. The words 'relationship' and 'cooperation' were mentioned only fourteen times and are not considered strategically important. There was a significant explanation of how they would be externally audited by central government and how they needed to demonstrate value-for-money. Auditing was mentioned one hundred and six times, more so than any other contractual or relational mechanism.

Non-PFI schools do not always have full control over whom they employ to deliver services, even if they are provided in-house. The employment legislation 'Transfer of Undertakings (Protection of Employment) 2006' (Department of Business Innovation and Skills, 2014) applies to staff working for schools. If schools want to get rid of a contractor and bring services in-house, then they are required to transfer the staff from the contracting company, regardless of whether or not they were satisfied with their performance. Therefore, schools do not necessarily have much more freedom over the recruitment of staff, other than that they directly manage them.

7.2.3 Contractual mechanisms for negotiation and performance of soft services in non-PFI schools

The interviewees from non-PFI schools discussed the experience of their own school. Half of all non-PFI schools chose to outsource cleaning. For catering, the option to outsource was much more popular, with most of the schools choosing to outsource. Switching forms of procurement was not common, with only two interviewees electing to do it. For example, one headteacher decided to bring cleaning in-house because they thought it would be easier to manage staff directly.

Non-PFI schools were influenced by several factors in deciding whether to use an in-house team or a contractor for cleaning and catering. First, it depended on the size of the school. For example, a couple of schools did not have a big enough kitchen to do in-house catering, as the population of the school had exceeded the size of its original planned capacity. Second, some schools that took part in the project were rural and others were in the city. Schools in rural areas struggled to find providers in nearby cities willing to transport meals to them every day of the school calendar. Third, there were a few schools that were also understaffed and therefore could not cope with the responsibility of recruiting and managing an in-house team of cleaners and caterers. It was seen to be easier and more time-efficient if that was the responsibility of the contractor. Fourth, it depended on how the school did procurement historically. In a couple of cases, the school had inherited an in-house staff that had been at the school for over a decade and saw no reason to change their procurement approach because they were happy with their performance.

None of the schools that I interviewed considered that in-house or outsourcing services were cheaper than the other and therefore choice of approach was not driven by cost. Their choice depended on the staff they were able to employ or whether they had found a good quality contractor. Out of the whole group, only one school that used an in-house team believed that using an in-house team was better because they felt more pride in their work and had a greater sense of ownership of the outcome. The schools that expressed higher levels of satisfaction with quality often had the same contractors/ in-house team for over several years and chose not to change them, when contracts came to an end. However, in one unique example, a school that experienced under-performance with in-house cleaning staff struggled to manage and get rid of the staff. Non-PFI school interviewee 1 spoke of the experience:

'We have to use the capability process that can be more difficult, we have had experience. Even when you get to the position that you are ready to go through the conduct process, we got to gross misconduct and it went to an appeal, and the panel turned it down by the local authority. We buy HR in from the local authority, so we had two advisors, one was advising the leadership team and one was advising the panel and the one that was on the panel advised the governors that they should give this person another chance…. they gave

him another chance and it went down on his record for three months. So, we did find that a frustrating process, but if you have good staff, it is so much easier to manage them yourself.'

When non-PFI school interviewee 1 changed to a contracted-out cleaning service and criticised the performance, it was still difficult to improve performance quickly:

'What happened, in the end, was that we were having meetings every couple of weeks. We were having meetings with the boss putting across things we weren't happy with. We were doing that for eighteen months and there wasn't any improvement in the cleaning. In the end, what we had to do was every morning I would go around with the iPad for forty minutes taking pictures of the state of the school. That led to a disciplinary for that particular member of staff. I provided all the evidence. We realised we found it so much easier… [to have it in-house]'

The interviewees from non-PFI schools suggested both approaches to procurement had problems. There are processes with in-house staff which make it difficult to manage performance, even though the school manager could talk directly to the staff, because of employment laws. However, with contractors, they had less strategic control because they could not manage the staff themselves. With both approaches, none of the state-funded schools had concerns about the price competitiveness of the services. The issues lay with whether they were able to achieve the outcomes they wanted from cleaning and catering.

Schools found selecting a supplier for small repair building jobs fairly easy. All school business managers would typically get a few quotes for a job or use somebody they had used before and were satisfied with their work. All schools were happy with the price they paid for the jobs. I asked the interviewees about their satisfaction rates for the prices they paid and the quality of service they received from cleaning, catering, and small repairs. When I asked the interviewees if they thought they paid the right price for small repairs or if they had paid too much, they all (100%) said they thought they paid the right amount of money for small repairs. Their opinion was the same for the prices paid for cleaning and catering.

Interviews then turned to satisfaction with the quality of services. With catering, the majority thought the catering was of good quality. Half of these schools had outsourced catering and the other half had an in-house team. The remaining schools had experienced a varying quality of catering and in all cases, they had outsourced catering. When discussing the quality of cleaning, most of the interviewees said the quality of the cleaning was high. Half of these interviewees outsourced cleaning and the other half had in-house cleaning. The rest of the interviewees thought the quality of the cleaning varied and, in all cases, the cleaning had been outsourced.

7.2.4 Procurement of small repairs in non-PFI schools

There were several ways that schools could procure small repair services. Some chose to have an in-house on-site team to make small repairs when needed. Others chose to use contractors, either on contracted hours or as needed. In two cases, the school had a contract with the local authority, who provided a service on the school's behalf.

With small repairs, the selection of suppliers was influenced by the status of the school and the council support that was available to them. Some councils had a contract with a firm to carry out small repairs in schools under their control. Other councils provided a list of suppliers that schools could choose from, although the schools did not have to use these suppliers. Academy schools receive no help from the council to find a supplier or staff. The satisfaction rate amongst non-PFI schools for small repairs was high. All interviewees were pleased with the prices they paid for small repairs. In terms of performance, only one maintained school and one faith school had a mixed experience. The academy schools navigated the market for suppliers without any advice, unless they were part of a chain of schools. In this one instance, the schools were advised on how to make the most of the options available in the area. In terms of the satisfaction with the quality of service for small repairs, all interviewees from academy schools said they were satisfied with the quality of the small repairs.

Some of the interviewees from academy schools had experienced their school converting from a maintained school to an academy. For example, a school business manager of one academy and interviewees in charge of a number of academies believed that the extra freedom they

gained from not being under the local authority meant they were better at procuring all their services. Non-PFI school interviewee 2 gave examples of how procurement in her academy school improved when it converted from a maintained school to an academy:

> *'If I want to find a different plumber, you would like to have at least four or five on the books that we can go to. For certain things, if you go to the council, you only have a choice of two. You see what I mean, so this is an emergency, and they can get to you tomorrow or get you next week. It was very restricted, I think. Now I have four or five that I can go to, one may only be able to come in next week whilst another can come in quicker. Another example, we had an underground water leak before Christmas. Instead of going to the council list and panicking that they didn't have anyone on there for something specific, I just went on the website and went on the water companies…I contacted them and by the weekend, they were on the site carrying out investigatory work for us…It would have been limited and harder to be able to react to that quicker I think.'*

Also, both interviewees in charge of chains of academies said they had overseen improvements in procurement in their previously maintained schools. The interviews suggest having more freedom to choose from a wider variety of providers has bolstered the consumer power of the school staff procuring services.

7.2.5 Procurement of major building projects in non-PFI schools

Most non-PFI schools also managed to achieve price competitiveness for major refurbishment jobs and were usually happy with the results. They need to follow procurement procedures from the local council for any work that costs more than £1,000. Schools are required to get at least three quotes and follow a tendering process for the work. This was effective in achieving the outcomes the schools wanted. The majority of interviewees from non-PFI schools did not have any experience in procuring large building projects. Only a third of non-PFI schools had experience of undertaking large building projects. Most of these interviewees were unhappy with how these projects progressed and thought that the end result did not entirely meet expectations. Only a few interviewees were pleased with how their large project went.

In non-PFI school discussions, most of the interviewees were not pleased with the outcome of the building project. The interviewees complained about the involvement of the council or diocese in the recruitment of contractors and management of the project, rather than the costs. For example, one headteacher of a maintained school observed that the project had been poorly recruited and mismanaged, which led to it taking three years to build at double the initial estimated cost. He complained about being sidelined by the council throughout the process and said he would have selected a different contractor. Faith schools also complained that they disliked the contractors their diocese recommended they use, because they had a preference for other suppliers' work.

The interviews revealed differences in contract design and procurement options within the groups of non-PFI schools and PFI schools. As mentioned earlier, in the PFI school group there were two types of contracts, with older PFI contracts excluding catering and newer PFI contracts including catering. In the non-PFI group, procurement rules varied with the type of school. In this group there were three types of schools; maintained schools, faith schools and academies. This had a significant impact on the freedom that the schools had to choose their suppliers. In summary, Table 5 below shows the differences in processes and controls that PFI schools and non-PFI schools have in managing value-for-money:

Table 5: Contractual mechanisms in PFI and non-PFI schools

	PFI schools	Non-PFI schools
Penalties	Y	Y
Warnings	Y	N
Legal action	Y	Y
Benchmarking	Y	N
Output specification	Y	Y
Justifying quotes	Y	Y
Break out clauses	N	Y

Table 5 shows that four out of seven contractual mechanisms existed in both PFI and non-PFI school procurement contracts. The main difference is that non-PFI contracts are shorter and have break-out clauses, whilst PFI contracts are long term with no break-out clauses. Consequently, PFI contracts have mechanisms to compensate for this, namely penalties, warnings, benchmarking and quote justification. There were a few similarities between the two groups. Both groups used output specification and penalties for cleaning and catering, and had recourse to legal action if problems could not be settled. The council played a significant and influential, but different, role in the procurement of PFI and non-PFI schools. The interviews from the non-PFI group showed that the majority of the schools were pleased with the quality of service they were receiving for cleaning and catering. No one was dissatisfied with the service they had over a long period. There were periods when some school staff were unhappy with the service, but they were able to challenge their suppliers and change the outcome. Moreover, everyone was pleased with the prices they paid. This was in contrast to the experience in PFI schools, where they were generally less satisfied with the quality of services and were less able to challenge their contractors.

7.3. Conclusions

This chapter summarises the findings from the data on contractual mechanisms and regulations for PFI and non-PFI schools. It also summarises interviewees' opinions on the performance of their procurement strategy and their experiences of negotiating with their contractors. The next chapter focuses on the impact of the external environment on procurement processes and contract management.

8. Findings from examining the external environment

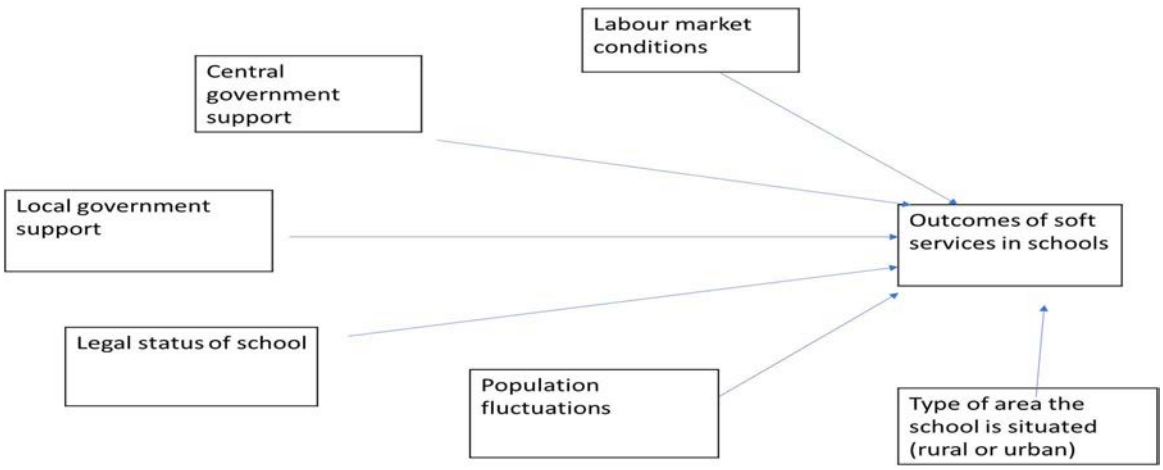
8.1. Introduction

This chapter analyses the findings from the data collection against the third research question, which asks how factors from the external environment influence the outcomes of PFI and non-PFI procurement for hard and soft services. The external environment potentially plays a role in influencing the negotiation process and its outcomes. A documentary analysis of the interviews for keywords associated with external factors led to the identification of a number of variables.

8.2. Factors affecting the outcomes for PFI and non-PFI schools

The diagram below shows factors identified from the interviews with PFI and non-PFI school practitioners that influenced the outcomes of services in terms of quality and price competitiveness.

Figure 3: External environmental factors that affect the outcomes for PFI and non-PFI schools



The interviews with both PFI and non-PFI schools highlighted six factors from the external environment that influence outcomes of services: the legal status of the school, the local labour

market, changes in demographics, the location of the school, and local and central government support. Each factor is discussed in turn.

8.2.1 Legal factors: legal status of the schools

The type of school had an impact on the regulations governing procurement. This in turn determined the amount of access they had to the market. Local authority schools and faith schools had their choice of supplier influenced by councils and religious authorities respectively in some areas of procurement. When these schools had suppliers appointed by another body, there was lower satisfaction with the quality of services than when they chose suppliers directly.

Although data on prices for soft services and small repairs were not collected, those in charge of procurement and finances in academy schools held different views to school staff in maintained schools about whether a competitive price was being achieved in maintained schools. For instance, non-PFI school interviewee 3, who was part of an educational trust that managed several academy schools which had previously been maintained schools, believed maintained schools had been constrained by their local council when procuring services. Often the council offered only a small selection of providers that did not reflect the real breadth of the market. This limited the advantage of potential competition for work. Non-PFI interviewee 3 said that procurement choices improved when the maintained schools gained academy status. This was also the opinion of non-PFI school interviewee 2 who had been in the position when their school changed from maintained to academy status. Although this change meant having greater responsibility in finding the right suppliers, their experience gave them greater choice and better options.

> *'We were maintained beforehand. I think they get heavily reliant on the local council providing everything for them. It does get scary and you think 'I have to do that myself', once you get used to it, and you get everything in place and you realise how much freedom you have now, but it's a lot better.'*

When non-PFI school interviewee 2 was asked whether services were cheaper when the school became an academy, she answered:

> *'It probably is cheaper on most things, but some things, for example, people that have been a listed supplier on the council, offers the school more of a discount. But to be honest, since I have been using other suppliers, I don't think there is much of a benefit of going for the suppliers from the council.'*

Without data on actual prices paid for comparable work, it is not clear whether academies and maintained schools are genuinely achieving a competitive price for their services or paying different prices. However, all procurement managers in non-PFI schools feel that they are receiving a competitive price. Although all non-PFI school procurement managers believe they achieve their goal, some non-PFI schools have restricted access to the market, similar to PFI schools. This could hinder their ability to negotiate and receive services at a competitive price, as it does for PFI schools. Therefore, changing a PFI school into a school under the ownership of the local council may not automatically result in paying market prices for services.

8.2.2 Political factors: central and local government support

The interviews with PFI practitioners confirmed how different stakeholders played differing roles in the negotiation process. The school representatives acted as a client, putting forward requests and making final decisions on offer acceptance. The local council officers played a supportive role for the schools. They can investigate the market prices of small repairs or any change requests, to help challenge any proposed price. They have a better knowledge of the obligations that the contractors have to abide by in the PFI contract and therefore can advise schools. There are also legal officers able to advise schools on how to manage disputes.

All interviewees from PFI schools said that the amount of monitoring and challenging of costs proposed by their PFI contractors for small repairs and changes made a difference to their success in achieving a market competitive price. For instance**,** PFI school interviewee 2 argued that further cuts in local government and the resulting reduction in staff since 2010 had led to

less monitoring and challenging in terms of cost. As a consequence, PFI school interviewee 2 argued schools are paying more than they should for small repairs:

> *'They used to do audits, but I think it is the demise of the local authority…they used to have a team and the contract manager used to work for that team. Now that post has been moved to a central unit of the local authority commissioning unit…. I don't think they have the manpower, but there is a different emphasis. It appears to me they are just letting me get on with it, and I think I can do it so far…The authorities used to investigate the costs a lot more, they haven't now got the time to do that. They haven't got the people to do that now, so there is a bit of a delay.'*

However, not all headteachers believed that local councils were useful, particularly where catering was not part of the contract. The schools in less bundled school PFI contracts found the role of the council less useful in managing the contract and depended on individuals' ability in the role**.** PFI school interviewee 4 from one of these schools described the role of the local council as:

> *'Limited help. I would say initially when I started here there was somebody from the council who had been long established with the setting up of the PFI arrangement and very supportive to the school…Whilst now they are not associated with us and moved onto a different role, and the current person who is new to the post, there is very limited support to the school from the council.'*

The interviews identified two ways in which councils have an impact on negotiations. They understand the PFI contract terms and can challenge prices by investigating the market. The experiences reported suggest these roles both sped up the process in which issues were resolved and achieved better value-for-money for services. Where council support was less available, communication deteriorated and PFI contractors faced fewer challenges to their proposed price offers.

The role of the council was also highly influential in determining prices paid for services in non-PFI schools. The interviewees gave various examples of the council being helpful and also

damaging in their procurement. For instance, one school provided an example where they were developing a separate site for pupils, which required architects and builders. Despite designing a competitive process and involving the school in the selection process, the council chose to ignore the school's preferences and insisted on different choices. Non-PFI school interviewee 5 said:

> *'I was informed that this school was in the mix for this kind of capital investment. I was effectively asked what was my vision, what did I anticipate, what could I do to enhance the quality of provision here and we talked about rebuilding the nursery building…We did a feasibility study, they contacted some local architects and they came back with draft plans and costings and went to the council panel whoever agrees all of that and then from that point on they appointed…I said I wanted to be involved in the appointment of contractors and architects as well. So, there was a shortlisting process and I read through all the bids from the architects and they asked me to rank them. The ones who won it weren't near the top of my list and equally when we moved onto the listing of building companies to do the work, the company I was told we ought to have were not the ones I had been most impressed by and what then transpired was three years of chaos!'*

Non-PFI school interviewee 5 described how his involvement was ignored, the project ended up going significantly over budget and the building was a compromise on what he wanted. Other schools gave examples of the council being constructive in their procurement of services.

> *'To be honest, if there is anything that I classify as major, I tend to consulting with the local authority and ask the procurement department for advice and guidance, because we are not qualified to be doing tendering exercises etc, so I like to seek their guidance anyway... The local authority is good to us, whenever I am in doubt, I run things past procurement and be sure anyway.'*

Non-PFI school interviewee 5 believed that the effectiveness of the council in responding to schools' needs depended on the people who were working there and their personal relationship with those people:

'With any large organisation, you get really reliable, keen people who want to do a good job, communicate effectively and have an understanding of what is going on. You get a really good service. If you don't get that person, your view would be very different. So it is kind of…what I have learnt having working with local authority in the past, early in my career, if you can find a person in the team who you can get on with, you sort of grab hold of them and you talk to them, no matter who you are supposed to talk to and then you get somewhere.'

The interviews from the non-PFI group showed that the local council could be helpful and unhelpful in procurement. The council gave guidance on how to manage the tendering process, suggested suppliers and provided catering and cleaning services for some schools via centralised local authority contracts. The role of the local council was significant in the examples shared in the interviews and had a substantial impact on the outcomes of services.

Another impact that the interviewees identified was from the major cuts that central government had made to the education budget. The Department of Education had experienced a 33% cut in government funding since the year 2011 to 2017 (National Foundation for Education Research, 2018). Some of the interviewees said government funding per pupil was problematic because the PFI school had been built to take in a significantly larger number of pupils than it currently had and the PFI contract linked payments to the size of the school. Therefore, as these schools saw their funding linked to the number of pupils, they saw their budgets shrink significantly and as a result paying a larger proportion of their budget on the building. This gave them even less flexibility to spend money on things the schools needed. PFI school interviewee 2 said:

'We are paying for the school as it was built. It is built for 1150 students. We are now funded per student, and we a currently down at 761 which is a big gap. So that is another problem not helping. It doesn't affect the PFI, because they still get the same amount of money. But we obviously have our money is fixed to the governing body agreement now in place. That goes up by the retail price index each year. We are actually funded by per student, so the number of students…it's about two thirds full. So, we only get two thirds of the money.'

The central government and local government had an impact on the information the PFI and non-PFI schools had and therefore their ability to negotiate prices. This in turn had consequences for their negotiating power and therefore the prices they paid. The influence of central and government varied with the status of the school, interconnected with factors of central and local government support.

8.2.3 Economic and environmental factors: labour market conditions and location of the school

The variations in performance of services in PFI schools were also linked to the quality of staff employed. The interviewees suggested that the quality of staff depended on luck in recruitment and retention of staff. The PFI companies used subcontractors and agency staff which led to a variable quality of service in some PFI schools, depending on the state of the local labour market. For example, non-PFI school interviewee 6 explained how changing cleaning staff affected her school:

> *'It depends on the continuity and consistency of cleaners. Whether we have...how many agency staff we have, and it is also affected by who is monitoring it. For example, it is supposed to be the assistant caretaker who was in charge of cleaning and the operational manager from FM. But now they have employed a cleaning manager who tries to supervise all the cleaners in an attempt to get more consistency and keep the standards up.'*

Non-PFI school interviewee 7 explained that part of the reason why the facilities management firm's performance was mixed was because it was difficult to recruit cleaners from the local labour market as there was a shortage of candidates. This made it harder for the facilities management company to cope with high turnover in cleaning personnel. PFI schools that had a lower turnover of staff had a more consistent service.

> *'I think it is because of where we are, it is hard to get so many cleaners in London. The money that is paid and the people that are available who want jobs in this sort of area,*

they struggle to fill the vacancies. That is not unusual, that happens not only with PFI but other…other companies would do the same.'

Labour shortages in the UK could impact cleaning services detrimentally regardless of the type of contract the school is under. Some schools said their location affected their ability to recruit good quality staff. For instance**,** non-PFI school interviewee 8 explained how the school in a rural area meant recruiting was difficult and therefore quality of staff varied:

'Where we are…it is quite rural. It is hard to find certain key staff. The cleaners are a bit hit and miss. Since I have been here is two and half years, I think three times we have advertised for cleaners. On one occasion we had three applicants and one of them was suitable. The last time we recruited, we had about twelve applicants, and I could have appointed all four that we interviewed. It does seem to be really hit and miss. We do generally find someone suitable for the role. We are not inundated with applications.'

The success of the recruitment was, to some extent, seen as out of control of the school staff because interviewees said the quality of employees explained why quality of services in PFI and non-PFI schools varied over time. Non-PFI school interviewee 9 said:

'Depending on the staff you got, if the staff were good, you got a good service. If the service is not good, then you got a bad service. It was the luck of the draw and I find it is the same here. No one pays cleaners loads…I honestly think it is about the people you get.'

These factors affect the outcome of services received by both types of schools. However non-PFI schools have more control over the recruitment process in instances where they have in-house staff employed directly by the school.

8.3. Summary

The findings from the data gathering came from documentation on school procurement and interviews with public sector staff involved in school procurement. Data was collected and the different central government regulations that PFI and non-PFI schools work under were analysed. This provided information on the contractual mechanisms included in PFI contracts and the contractual approaches taken in non-PFI schools, which were then discussed in interviews. The data obtained from PFI schools showed that PFI contractual mechanisms are designed to manage negotiations between two parties in a long contract because the contractor is insulated from competition. The evidence collected demonstrated variation within the group's procurement approaches due to differences in the level of soft services bundled into a contract. Thus, the procurement options that interviewees involved in PFI contracts had for choosing and managing suppliers did differ slightly.

The data collected showed that the contractual mechanisms that PFI schools and non-PFI schools used varied significantly. Contractual mechanisms in PFI contracts were designed to manage negotiations between two parties in a long-term relationship. Non-PFI school contracts, however, do not have such a long-term relationship in view, because they are much shorter and are not designed to manage a building through its lifecycle. Consequently, there are fewer devices to test the price of services in the contract. Instead, non-PFI school contracts tend to be much simpler, with a break-out clause halfway through the time of the contract, an output specification and sometimes penalties included.

An insight that emerged from interviews with non-PFI schools was that the decision to outsource or deliver in-house was not driven by costs. Instead, the choice was made on what had been done historically and whether the school felt they had enough strategic control over their provider. The factors that were out of their hands were the quality of staff they were able to recruit and the funding they received from central government. Those who let the local authority procure on their behalf also felt less in control of the outcome of the services they received and therefore were more dissatisfied. PFI and non-PFI interviewees' experience of procuring for small repairs and major building projects suggest access to a competitive market

and the autonomy to select contractors is crucial in boosting negotiation power, procuring good quality refurbishing and a competitive market price for services.

From the interviewees' experiences this chapter has identified how the external environment had an impact on the outcomes of soft services and small repairs. The factors identified were out of control of the school staff regardless of the type of school and appeared to have some impact on the ability to deliver services. This data was analysed to seek answers to the three research questions: how PFI procurement leads to its outcomes, how non-PFI procurement leads to its outcomes and how the external environment influences soft service delivery. The next chapter will analyse the findings through the contract theory approach to gain insights of the workings of PFI and non-PFI contracts for services.

9. Analysis

9.1. Introduction

This chapter analyses the findings presented in Chapters 7 and 8 in order to address the three research questions. Firstly, under research question one, the chapter focuses on evaluating the effectiveness of PFI contract mechanisms. Secondly, under research question two, a comparative analysis between PFI and non-PFI schools is conducted to seek to understand how outcomes are different for services. Finally, under research question three, the chapter examines how the external environment impacts the outcomes for services in PFI and non-PFI schools. As set out in Chapter 9, the research has been approached through the lens of contract theory to gain insights into the impact of contract design on different forms of procurement. The data collected from documentation and interviews was analysed through the application of contract theory, and the analysis is organised here under four key themes as follows: contractual incompleteness, information asymmetry, relational contracting and a game theory perspective on long-term contracts.

9.2. Analysis of the impact of contractual mechanisms in improving the public sector's negotiation power

9.2.1 Introduction

Research question one sought to understand the extent to which PFI contractual mechanisms are effective in public sector negotiations over price and quality of services. The data collected explored various contractual mechanisms designed to strengthen the public sector's negotiating position in PFI schools' contracts. It was explained in Chapter 7 that the majority of the mechanisms to support the public sector's negotiations for services were considered to be less than effective in practice. This underlay the high levels of dissatisfaction expressed by interviewees about the price paid for services. However, there was less dissatisfaction with the quality of services.

9.2.2 Contractual incompleteness in PFI contracts

When contracts are incomplete the challenge is to reach an optimal solution for both parties to manage negotiations that can arise over issues not covered by the contract. One particular contractual mechanism identified in the research findings, that had an impact on contractual completeness in relation to soft services, was 'output specification'. This is the articulation of end products, as written into PFI contracts, particularly applied to cleaning and catering services in schools. Output specifications typically relate to the aims, objectives, purposes, scope of activities and key performance indicators (KPIs) over performance requirements (HM Treasury, 1998). The nature and precision of output specification therefore potentially have significant implications for quality, prices paid for services and any subsequent negotiations between the parties. The UK government argued that well-written output specifications rather than specifying inputs would also make allowances for innovation. They also stated that a balance needed to be struck between setting out the full scope and not being overly prescriptive, as this might otherwise foster performance only to the minimum required level (HM Treasury, 2007).

According to the respondents interviewed in the research, the quality of catering was seemingly mixed across the PFI schools, with half of respondents suggesting it was of high quality while half felt it was of a low standard (when catering formed part of the contract). Slightly differently, with regard to cleaning the majority considered it to be of high quality, and the rest thought cleaning was low quality or mixed. In the interview questions on these topics, it was often argued that output specification was ineffective in helping schools challenge perceived poor performance.

A common complaint about the output specifications was that they were open to interpretation. For example, PFI school interviewee 1 described a situation in which a change in the management within the PFI company had led to a significant reinterpretation of the cleaning contract, with important consequences for the school to confront:

> *'It all comes back to contract in the end… I know I have been told they can't do [reactive cleaning] because I don't have reactive cleaning. We never had reactive cleaning and it has never stopped them in the past, they have always just done it…I tried to challenge over the cleaning but they say 'no, you haven't got reactive cleaning, if you want reactive*

cleaning, you have to buy that in', but we haven't got that at the moment. It means you have to have another member of staff on site the whole time. The caretakers wouldn't do it, I would need a reactive cleaner on site all the time. I would have to pay for that extra staff full time, and I can't keep the members of staff I have at the moment… It's a shame that obviously something they did do as a good will before, we got to say 'thanks, we have had that for eight years, great'.

The interviewees' experience suggests that interpretation of the contract and goodwill could change with changing staff in the PFI company.

Second, some of the PFI school interviewees disliked the fact that their contract for cleaning allowed too much time for the PFI company to correct their mistakes, often giving them up to a week to rectify a mistake rather than a few days. This aspect of the contract effectively reduced the quality of the cleaning service. All PFI school interviewees suggested that the output specification criteria should have required higher standards as well as being more detailed in expectations and more reflective of the customer's experiences. For example, PFI school interviewee 2 said that the output specification in cleaning contracts is reactive and staff would not necessarily do their tasks without requests through the helpdesk:

'They are waiting for me to basically put a request through and they will clean it. They have been walking over bits of chewing gum, and they are not cleaning it. That is the type of stalemate situation I am in, so it doesn't work, the contract is not written for the benefit of the user…the fact is with cleaning the contract is not written…it is an outcome specification. It is written in a way…that it is very reactive.'

The experiences and opinions of the interviewees were reflected in literature on output specification in PFI contracts (Hart, 1995; Javed, Lam and Chan, 2013). A case study of PFI hospitals in the UK suggested there were problems with interpretation of the output specification (Javed, Lam and Chan 2013). They argued that 'it is also difficult to specify all output requirements and to get everything right in the PFI schemes right at the outset' (Javed, Lam and Chan, 2013, p. 629). Others have found evidence of output specification causing disputes over interpretation rather than successfully linking performance to payment. Robinson and Scott (2009) carried out semi-structured interviews with public sector managers and PFI

contractors. Their study discovered that the output specification for soft services led to a misunderstanding over what performance requirements were required in practice, with the client viewing the requirements one way and the contractor interpreting them another way. Akintoye et al., (2003) also found that a precise definition of high-quality soft services was difficult to create, leading to disputes in their survey of PFI contracts. The conclusions drawn from the dataset in this thesis are consistent with the experience in these studies. It appears that output specification causes problems with interpretation in contracts for soft services.

Some interviewees mentioned their concerns that the contractor had full ownership over the production of services and the lack of input specification in PFI contracts had negative consequences. One influential international study suggested a focus on output specification rather than input specification led to a decrease of lifecycle costs of between 20-30% (Anderson and Enterprise, 2000). However, respondents' views on managing soft services in this research suggest that PFI contractors could take advantage of the absence of input specification in order to improve profitability. For example, in a benchmarking exercise for catering services, some interviewees gave examples of a PFI company responding negatively to benchmarking when it resulted in reducing prices by cutting down staff. These interviewees argued that the mechanism of benchmarking for catering and cleaning contracts resulted in schools suffering in the end. They perceived that savings received resulted in the contractors cutting their own production costs by reducing staff. For instance, PFI school interviewee 3 said:

> *'We have a benchmarking exercise, and that happens every five years…the local authority did find some savings of £120,000. Do you know what they did? (The contractor) took that out of the other services…there were cuts on services in catering, cuts on services to portering and cuts on services to cleaning. So, we as a result of all of that, suffered from the benchmarking. So, we actually suffered.'*

The experience of the respondents who had been through the benchmarking process demonstrated that the lack of input specification resulted in room for PFI providers to act opportunistically in the contract design despite the presence of benchmarking. Producers still had control over how they wanted to deliver soft services, making benchmarking a less valuable tool to achieve value-for-money. There was no evidence from the data collected that suggested that output specification encouraged innovation in soft services, as predicted by central

government (HM Treasury, 2007) and literature from Anderson and Enterprise (2003). Instead, it meant that the contracts for cleaning and catering were less complete, leading to the problems typically experienced with incomplete contracts.

The concern with contractual incompleteness in PFI contracts was demonstrated when interviewees were asked to compare their experience of soft services with hard services. The level of satisfaction with cleaning and catering contrasted greatly with that for hard services (the maintenance of their main school building). All PFI school interviewees were pleased with the standard of hard services as the output specification for this part of the contract was more detailed and clearer about the PFI company's responsibilities. The interviewees gave reasons why they thought the performance was good. They said that the contractors followed exactly what was said in the contract and the written contract for hard services was straightforward and easy for all to understand. PFI school interviewee 3 compared the catering component of the PFI contract to the hard services part of the contract:

> *'With buildings and infrastructure, they have had a few issues internally, but from a school's perspective, it is easier to manage. You have to say, 'this piece of equipment has to be checked every year' then it has to be checked every year. So, it is easier to manage. It is more technical, but it is…easier… I think the contract (for soft services) is less specific. I suppose if you have got wiring, it is wiring isn't it? There are building standards that they have to adhere to and that is fairly straightforward. There is less argument, there is less grey area to argue over. I think with soft services, with the contract is not particularly wonderful and it is subjective, and I think that is why it is difficult to get right.'*

PFI school interviewee 2 believed that soft services are harder to manage than hard services because the production of soft services is more people-orientated than other parts of the contract. She argued that this makes the performance of soft services more variable:

> *'Because it involves people, and although it is more expensive, the people are…with the cleaning service, it is very people orientated, it is not very high value and contained. With buildings and infrastructure…they have had a few issues internally, but from a school's perspective, it is easier to manage. Soft services are not so easy to manage and they're*

almost seen as a Cinderella service and their company look at it in ways they can make money on it, so that they can save money on it. I think it is seen as ways they can cut money it is easier than for the hard services. There have been some changes to hard services, and I think the person who is running it is very good. So that is part of it as well. I think because it is more technical, it is clearer about what's required. When you get into the soft services, it is less black and white.'

The interviews indicate that the problems with output specification can be interpreted as the contract having characteristics of contractual incompleteness (Mansor and Rashid, 2016; Hart, 1995; Tirole, 2009). The contract for soft services is incomplete because it is open to interpretation given the nature of the services being people orientated in production. The frustration that some of the interviewees experienced when trying to discuss changes or improvements to catering and cleaning suggests that the contract was inadequate to manage renegotiations. Contractual incompleteness could explain why there is a significant difference between satisfaction rates for soft services and hard services.

The interviewees' experiences demonstrated that more complete contracts protect the consumer and manages expectations better on both sides. More complete contracts provide greater certainty over what outcomes should be expected from a service. Interviewees were therefore more satisfied with hard services because more complete contracts met expectations better. Less complete contracts for soft services meant less clarity regarding expected outcomes and thus created dissatisfaction for interviewees. Theory on incomplete contracts predicts problems tend to arise in uncertain situations (Williamson, 1985) and this occurred in the dataset more in relation to soft than in hard services.

Further evidence of the problem of contractual incompleteness is evident in the difference in contract design for different PFI schools. Older PFI contracts did not include catering, whilst newer PFI contracts did include catering. In older PFI contracts, these schools had the option to either outsource catering or to create an in-house service. In all cases in the data collected, the schools outsourced catering. Outsourced contracts were much shorter than the thirty-year PFI catering contract, typically lasting three years before being retendered. As a result, the outsourced catering services contracts in the older PFI contracts were more complete than the catering services bundled into the newer PFI contracts because they were much shorter and therefore the contract didn't need to cover a wide range of changing circumstances. All PFI

school interviewees in earlier PFI schools were significantly happier with the performance of the catering services than headteachers who were involved in PFI contracts which started later. In one case, PFI school interviewee 4 had chosen a private provider rather than using council catering services because the price was cheaper, and the provider was more responsive to her requests of how she wanted her children served:

> *'Again, we go out of county for catering and I am very happy with our catering contract. The council contract is very fixed. So, for example, if a child's plate is meat, potato and veg, and say the child does not like potato and veg, they don't give anything additional in the county's contract. They would only put the one piece of meat on there and would not expect any more money for. Where our catering firm, they are flexible, ensures every child has plate full of dinner. There is more choice, and we also offer snacks that children can purchase if they wanted…They do try to ensure everyone has a full dinner, whereas the county's catering service, does not.'*

None of the interviewees from later PFI schools were happy with the quality of the food and believed that their PFI providers were not responsive to their requests. PFI school interviewee 5 argued that the output specification in the catering component of the PFI contract meant there was little flexibility in the service:

> *'My view is it (the menu) doesn't always reflect the circumstances of the school. I think there is a little bit of flexibility there which they could be more flexible about. Because again, having a primary, higher and a middle school they have different needs. But the portion sizes…they say they are complying, and they do, but their portion sizes are not attractive.'*

The experience that PFI schools had, depending on whether catering was bundled or not, demonstrated a difference in the contractor's willingness to be flexible or not. When catering was not bundled and was delivered through shorter outsourced contracts, contractors showed more willingness to adapt to their clients' needs. However, when catering was bundled into PFI contracts, PFI contractors were significantly less willing to be flexible in catering provision. The lack of flexibility from the provider's side can be interpreted as a characteristic

of incomplete contracts and therefore a consequence of catering being bundled into a long-term contract.

Most PFI school interviewees found it difficult to articulate any changes they wanted and to negotiate new standards in cleaning and catering because PFI contractors were not willing to be flexible. With the catering contract interviewees complained about the lack of flexibility of the contract and the unwillingness of the PFI contractor to respond to their changing demands. The inability to negotiate additional demands or renegotiate terms is seen as one of the problematic characteristics of incomplete contracts (Mansor and Rashid, 2016). For example, PFI school interviewee 2 believed that their PFI provider did not act in a 'commercial' way because they were protected from competition, which explains why they were not concerned that their service was perceived as poor quality:

> *'Again, there is no incentive for the provider to market their services. They do a little bit of lip service. They are also tied or bound by the food standards. When we had the meeting last week, they kind of hid behind that. What is my impression from an operational level is that they have no incentive. They don't act in a very commercial way. Because as they are a commercial company, I would assume that they would be marketing their service, they don't. The portions are very, very small and we have a downcycle where the prices are quite expensive, portions are small and because they are not getting the trade, they are reducing it down. So, they are shrinking the service, they are not actually expanding the service, they are not marketing the service…the uptake is about 22%. There is the town centre, and that is always plied out as an excuse as it were. So, they are not making money or breaking even for some time, and I've haven't got to the bottom of that. They don't appear to be working in a way I would expect a private company to operate.'*

This research explains that the reason for the inflexibility on the PFI contractor's part in the provision of soft services is as a consequence of incomplete contracts. The lack of flexibility is an example of 'hold up', whereby PFI contractors are insulated from competition and therefore do not need to be responsive to the schools' needs.

9.2.3 Information asymmetry in PFI contracts

The difference in information known by two parties in a contract is known in the literature as information asymmetry and is discussed widely as a phenomenon in contract theory. As mentioned in Chapter 3, information asymmetry causes adverse selection and moral hazard in contracting. Since operational contracts are the focus of this study, the concept of moral hazard is used in analysis. However, adverse selection is not considered as the PFI contractor has already been selected by the operational stage and hence this problem does not arise at this point in the contract.

There are two PFI contractual mechanisms which aim to reduce asymmetric information between public sector clients and PFI contractors: comparing prices for services through a benchmarking or market testing exercise, and monitoring of contracts. Market testing quotes for small repairs and benchmarking catering services were undertaken to improve the information that all the PFI schools had about the costs of small repairs and catering. The local authority managed the schools' requests to their PFI contractors through facilitated monthly meetings. The local authority would challenge suggested quotes for repairs and hold benchmarking exercises for soft services. We examine in turn how effective these contract mechanisms were at reducing moral hazard in operational PFI contracts.

There was some evidence that market testing worked and that the local council providing schools with information did help to reduce initial quotes on small repairs. Collecting quotes did reduce the extent of information asymmetry between the two parties. Some school business managers mentioned in their interviews that this did improve initially estimated prices from the contractors over small repairs. However, market testing was not perceived to be enough to improve the value-for-money of the contracts significantly. There remains asymmetric information in relation to production costs. The council officers failed to achieve value-for-money in all circumstances, because the written contract had already defined many prices of repairs.

Benchmarking the cost of catering meant competitive prices were achieved during the operational period. However, as mentioned earlier, this did not necessarily produce value-for-money in the examples provided as PFI contractors took advantage of the lack of input

specification in the contract. Therefore, there was mixed success from the benchmarking process. The analysis of benchmarking in this research is supported by a government report (HM Treasury, 2018), which also found mixed results from benchmarking, attributable to the public sector's difficulties in collecting data to challenge prices in the benchmarking process. This could be interpreted as a problem of asymmetric information between the public and private sectors. Contract theory suggests that asymmetric information on prices is likely to lead to more opportunistic behaviour (Morgan, Katz and Rosen, 2009) and in the experience of these interviewees, it led to less value-for-money. Differences in knowledge of the cost of production in catering caused difficulty in negotiations on catering.

Furthermore, the facilities management companies often refer to risk models related to the lifecycle of the building to justify charging high prices for small replacements or small changes to the school building. The council did not have a way of assessing whether these risk models were credible. They found it difficult to argue against the use of risk models and lifecycle costs to justify high quotes. Therefore, there is an information asymmetry in this regard and a suspicion it was leading to moral hazard. PFI school interviewee 6 gave an example of how the school wanted to replace one sink with another which had a slightly different shape. This led to a dispute with the PFI company over the proposed cost because the PFI firm justified their suggested price with reference to risk models associated with the lifecycle of maintaining the sink:

'They did try…to replace one sink with another, they charge all the maintenance for over twenty-five years, when they replaced it with the same thing but slightly larger. It worked out as thousands, it was absolutely ludicrous, and we obviously didn't go ahead with it.'

The role of risk models associated with the lifecycle of PFI buildings made it very hard for councils to challenge high prices for small repairs and replacements as they lacked access to information on the risk models and buildings' lifecycles concerned.

The second mechanism in the PFI contract to reduce asymmetric information and the problem of moral hazard was in the monitoring of soft services. Every PFI school interviewee thought that monitoring had a positive impact on improving the quality of work by the PFI contractors. Their experiences suggested monitoring improved information flows between the two parties.

Firstly, more monitoring meant the contractor had a better understanding of the school's expectations and needs for cleaning and catering. Secondly, it facilitated better communication leading to an improved relationship and more trust. Some interviewees suggested that the most effective tool for keeping the PFI company accountable was audit plans. Audits of cleaning and catering are undertaken by the council and the company provider as well. The interviewees were enthusiastic about the results of asking for audits and the importance of quality of supervision on the company's side. In examples where the school and the PFI supervisory manager had less contact, there were higher levels of dissatisfaction and disputes over quality. For example, PFI school interviewee 7 said:

> *'It depends on the continuity and consistency of cleaners. Whether we have...how many agency staff we have, and it is also affected by who is monitoring it. For example, it is supposed to be the assistant caretaker who was in charge of cleaning and the operational manager from FM. But now they have employed a cleaning manager who tries to supervise all the cleaners in an attempt to get more consistency and keep the standards up.'*

PFI school interviewee 3 from another school had this perspective:

> *'Usually if I do an audit, they will do something, and it will get done. It's keeping on top of it. I tend to ask them for the audit, and I think it should be the other way around. They want to be on top of their cleaners, they are not my cleaners, they are their cleaners.'*

These examples underline the importance of addressing information asymmetries between the two parties to achieve successful outcomes in soft services. Less oversight from the local authority led to higher prices. Monitoring soft services in schools gave school staff greater control over the staff employed by the firm. This helped to address a common complaint that PFI staff were not employed by the school and therefore the school lacked the ability to direct them.

9.2.4 Relational contracting in PFI contracts

In this section, we analyse evidence for phenomena relating to relational contracting. We examine whether the relationship between the school staff and council officers and the PFI company benefitted or harmed the negotiation process. We also examine whether the contract detail had any impact on encouraging cooperation, or in contrast, might act to destroy trust and encourage opportunism.

Opinions differed over the effectiveness of the relationship to deliver outcomes that the public sector wanted. Local council officers were more optimistic in terms of what it could achieve. Council officer 1 said that contractors 'cannot afford to have a bad relationship' with them. They both said historically, there had been poor relations between the schools and the contractors, and this had been costly to the contractors. Both council officers highlighted examples of the contractor doing small repairs for free in order to improve the relationship and increase goodwill between the parties. For this reason, they argued it was not in their interest to be opportunistic and charge too much for changes to the building. Council officer 1 suggested the contract itself was a starting point for discussions. However much of contract management relied on the relationship and level of communication:

> *'nobody wants to be penalised, but the whole idea of having any contract really is a) to safeguard those stakeholders and b) hold people to account when performance isn't as per the contract, so I think it does help. But in terms of having a good and stable relationship with the provider, because the contract does have specific things that can be deducted with performance or unavailability, there still needs to be a degree of reason and why…the bottom line is having a good and clear contract, that in your very worst-case scenario is your fallback position. Knowing that is what you would go back to, if you are uncertain at any time, you can refer back to the contract and say 'look, this is what the contract says' and then apply that to the situation. So that whether there is a deduction or a query, whatever it might be, you can say 'no, there is no wriggle room on that' and if they don't do it you can say they are putting children at risk or something like that. A degree of common sense needs to be applied and this is where negotiation comes in, because you can say 'this is what the contract says and how can*

we fit that situation to the contract so it benefits everybody and not be a detriment to or have a negative impact on the relationship'.

Council officer 2 in a different part of the country also agreed that the relationship was important in achieving the outcomes they desired, through managing expectations on all sides of the contract and reducing the level of uncertainty:

'I would also say one of the reasons the relationship has also improved is that is that we are trying to learn more to forward plan. That allowed what intentions are allowed to happen for the next few years. Because the unknown actions that lead to uncertainty didn't help a good working relationship. Where at least we know now 'I am going to get my new gym hall…it is not going to be next week, it will be the year after. But at least I know it is getting done.' So, I have got that in my mind, so from a central perspective to make sure they deliver that, the PPP provider.'

He said that PFI providers were willing to arrange meetings on a more informal basis because of the good relationship. When asked what an improved relationship achieves, the Council officer 2 answered:

'I would hope others would see… some longstanding issues and getting resolved and get moved forward. Because of the size and complexity of the contract, it is not going to happen overnight. It is important that all parties work together moving forward.'

On the other hand, the perspectives of all the school staff tended to differ from those of the local authority staff. For example, PFI school interviewee 2's opinion of the attempt at improved relations suggested it made little difference to outcomes in the long run because it is hard to work together:

'I think it always helps to be professional and get along. If things are not, it tends to deteriorate. Things have deteriorated, there hasn't been a breakdown, but it has been quite difficult. Because I think they are very mechanistic, they have been in the past. I think you're right, but I think the local authority has said the way we can make sense out

of all this, as this is a very long-term arrangement, we need to establish and build relationships, because if you don't have a better relationship, we will all have to go home. It would be very, very, very hard. It makes the task even harder. I do work as much as I can with them, because as I say it makes the job easier. My role is about people anyway. You have to work with people to get things done. It is just my overriding regret that they don't work for me.'

This opinion was shared by other headteachers, who found that the relationship with the PFI provider did not improve value-for-money for services but allowed things to get done more smoothly and quickly. For instance, PFI school interviewee 3 said:

'We worked hard on that relationship, we do have good meetings together, we do manage the school, we move forward, we look at things we need to have in place together for the security of the school, that sort of thing.'

Headteachers in PFI contracts where some of the soft services were outsourced appeared to have better relationships with their PFI providers. For example, PFI school 4 said:

'We have a good working relationship. I wanted some things specifically cleaned. Then they will change their routine, so our requests are met. So, for example as well, if I have had a high percentage of illness or I wanted a deep clean to prevent continued contamination, they will do that as well.'

The interviews with both council officers and school staff suggested that the client-contractor relationship does not act as a tool to improve value-for-money in negotiations. Instead, it aids both parties to work through problems by delivering results more quickly and managing expectations of what is and is not possible. There is a debate in the academic literature on whether relational mechanisms act as substitutes or complements (Poppo and Zenger, 2002). The evidence from this data suggests the relationship does not override any contract mechanism in negotiations. Discussions are based on the written contract and the relationship acts as a complement in the negotiation process.

Contract mechanisms such as warnings and legal action were not particularly useful as credible threats because of the concern that they would damage the relationship. All interviewees said the state of the relationship with the PFI company was important to service delivery. Interviewees from different councils had experienced the relationship with the PFI company both positively and negatively. Although available in negotiation breakdowns, giving warnings was not a tool that council officers liked to use if it hindered relations and communication in the future. Council officer 1 said:

> *'At the end of the day, you sit round a table and argue it out really. The last thing you want is to be at loggerheads like that because it is not conducive to relations at the time and it doesn't bode well if you come across a similar situation in the future. You want to have a positive outcome from the start, so should you need to in the future be able to say 'oh well, when this happened six months ago, this is what we did to resolve it.' I think that is to everyone's benefit really because nobody wants to go down the dispute road because it is long, protracted and costly at the end of the day.'*

PFI school interviewee 6 from another council told of her experience of how significant challenge from the council changed the willingness of the PFI company to be opportunistic as they learned of the importance of a good relationship:

> '*Everyone was testing the boundaries to see what you could push and what you couldn't. That did settle down and things are a lot more reasonable now… At the moment the relationship is very good, but there was a time we didn't really understand how they worked. I don't really think they understood how the school worked…at the beginning of the contract. Everyone was testing the boundaries to see what you could push and what you couldn't. They did settle down and things are a lot more reasonable now.'*

The school business manager negotiating about a sink, as discussed earlier, said that the PFI contractors became less opportunistic after the council complained and challenged PFI contractors over the prices charged for replacements and small repairs at the beginning of the

contract. In this case, the threat of poor relations between the council and the PFI company was significant enough to change their behaviour.

A common complaint from interviewees was that PFI companies were not flexible in responding to their requests. This suggests that relational mechanisms were not effective enough to act as a substitute for contractual mechanisms. Many interviewees said that PFI companies often referred to the contract when there were disputes over the quality of services and additional work. These relational mechanisms improved the flow of communication between the school staff and the PFI company, and therefore the understanding between both sides of expectations of the contract. The contract is not ignored so as to ensure mutually beneficial outcomes and the relationship is complementary.

The literature on relational contracting suggests too much detail in contracts undermines relationships (Uzzi, 1997; Ghoshal and Moran, 1996; Poppo and Zenger, 2002). It is argued that too much detail can display a lack of trust, discourages communication and information sharing and encourages opportunism. However, in the research for this thesis, there was no evidence to suggest that too much detail in the PFI contract undermined cooperation. For example, the analysis of the impact of output specification suggests that there was not enough written detail on what was expected and this lack of clarity created disputes and lack of trust in catering.

The public sector saw the value of improved communication through a good relationship. It was a necessary tool because the contract was not complete enough to cover all scenarios. Also, it could be argued that the difference in satisfaction rates for hard and soft services shows that more detail in contracts led to better services, less opportunistic behaviour and therefore more trust from the school to deliver in this area. The lack of detail in the contracts for soft services led to more disputes and examples of opportunism from the PFI company.

The New Labour UK government argued that relational contracting was important to overcome the problem with PFI contracts (ODPM, 1998). However, this thesis argues that although good relations did improve quality and price competitiveness to some extent, the evidence suggests that good relations did not have a transformational effect in combating opportunistic behaviour

and aligning goals between the two parties. The success of using the relationship to overcome problems of value-for-money and quality of services varied. It depended on the knowledge and capabilities of school and council staff and the willingness of individual PFI companies to be flexible.

9.2.5 A game theory perspective on operational PFI contracts

Game theory is an approach to understanding and predicting how outcomes are reached when parties interact and adopt strategies to win their preferred outcome (Binmore, 2007). In Chapter 3, it was shown how a game theory perspective demonstrated the need for credible threats in contracts in order to foster cooperation and incentivise the parties to comply with long-term agreements. The theory predicts that in a repeated game, in the absence of credible threats, one party will renege on the agreement if they are able to make larger profits despite receiving punishment for reneging. In PFI contracts public sector clients developed threats such as financial deductions for poor performance and warnings that could affect the PFI companies' reputation in the market. We assess how effective these mechanisms are in practice in being a credible threat and how they affect outcomes.

All PFI school interviewees discussed the use of penalties in PFI contracts and gave an opinion on how penalties worked in practice. Some interviewees described penalties as 'useful' and 'fair'. However, none of the interviewees from the schools believed performance deductions were effective in changing the behaviour of PFI contractors in the long term. Some interviewees described penalties as a 'reactive' approach to poor performance rather than proactive in preventing it. Council officers saw it as a 'fallback position' when contractors did not fulfil their contractual duties. Interviewees from the schools argued that performance deductions were not useful. PFI school interviewee 2 said:

> *'With the penalties, there are no teeth to it, so there is no incentive. So, I think they have done a calculation 'oh it's not worth it''…There are no penalties that are onerous for them to comply. It's easier for them not to react to my helpdesk queries and pay the penalties, which might be twenty pounds a month… So, it is not enough of a financial incentive at all for them. So, it is not set up in a way that is going to change their behaviour.'*

When asked whether performance deductions were effective, PFI school interviewee 7 said:

'In sense they get fined and we get money from the contract, but it still did not solve the contract that you are without toilet rolls or something has not been cleaned. The money is OK, but you shouldn't have the problem in the first place.'

The discussions around penalty deductions suggested that they did not make PFI contractors proactive in reorganising the delivery of the service to avoid problems. There are parallels from this experience with game theory that predicts outcomes from negotiations. Game theory discusses the role of credible threats and how they can be effective in combating opportunism (Binmore, 2007). Game theory predicts that if the threat is not credible, that is, not in the interest of the party carrying out the threat or the cost of the threat does not exceed the benefits of opportunism, then the other party will continue to act opportunistically. This can be seen in operational PFI contracts where penalties are too low to stop PFI contractors charging high prices or making them improve the quality of their services. Game theory appears to explain how small penalties provide low powered incentives to encourage compliance with the PFI contract.

In the interviews, only the council officers discussed the use of warnings and legal challenges. This was not a mechanism that school staff could use. It was a matter for the council to decide whether or not to pursue this approach. Although it was a potential mechanism in negotiation breakdowns, giving warnings was not a tool that council officers liked to use if it hindered relations and communication in the future. Council officer 2 said their council had tried that route in the past and neither the public sector nor the contractors achieved what they wanted from the legal battle, resulting in a loss all around:

'There have been times when the relationship has been confrontational. Again, this is my opinion, other people might disagree with me. There has been confrontation with individuals involved. In the last few years, we have made an effort to build relationships because that was the only way to make the contract actually work, so we were constantly

asking 'what does clause 15.4. 3. 2. Say?' and it is getting us actually nowhere. So, it was about working within broad principles. On occasions we have to refer to the contract.'

When Council officer 2 was asked 'Do you think there are parts of the PFI contract that work well and others that don't work so well?', he was not enthusiastic about using legal action, based on previous experience:

'It only works well with the cooperation of all parties…because the last thing you want to do is taking legal action every five minutes. The council has taken legal action because the council said they wanted something done and (the company) said 'no, you are being unreasonable'. The review that took place didn't help anybody. It did not help either of the parties involved.'

The interviews with the council officers suggest warnings and legal action were not useful mechanisms. Neither Council officer 1 nor 2 wanted to use these routes to manage the PFI contract and thought they were ineffective in achieving what they wanted. They also thought that warnings could potentially have a negative impact on the relationship and affect their ability to work together. However, both said it was useful to have as a last resort option and to show the PFI contractor their legal obligations. The reluctance of both interviewees to pursue these actions suggests these were not credible threats to PFI contracts in view of the fact that it could be costly to the relationship between the two parties.

In summary financial deductions, warnings and legal action worked as a last resort in the face of poor performance but did not meet the criteria of being a credible threat. The criteria of a credible threat are: the costs of cheating are higher than the benefits from cheating; there are no negative consequences for the party to carry it out; it does not take too long to catch cheating, otherwise the benefits will outweigh the costs of cheating; and the agreement is not too complex that it is misunderstood (Binmore, 2007; Morgan, Katz and Rosen, 2009). The relatively small size of the threat combined with the reluctance to carry it out because of negative consequences for the buyer suggest these were not useful tools for negotiating in a long-term contract. The threats lacked the characteristics to influence the contractor's behaviour and therefore were ineffective in an operational contract.

9.2.6 Summary

The thesis argues that the interviews suggested that most contractual mechanisms are ineffective. Performance deductions that were applied did not change the behaviour of PFI contractors in the long term. The benchmarking process was vulnerable to opportunistic behaviour from the contractor and school staff were not satisfied with the output specification that the contractors had to fulfil. Applying warnings and going through legal action was seen as too costly with little positive outcome. As many mechanisms are ineffective, there are limited opportunities to be successful in negotiations in a long-term contract. This led to dissatisfaction with prices paid and mixed opinions about quality. The approaches that were successful in negotiations were often not part of the written contract. When PFI contractors were challenged on their approach by several schools in the contract, they would be less opportunistic. Monitoring of services also helped manage the operational part of the contract. The extent of monitoring was dependent on the management style of individual school staff.

The data collected from interviews is consistent with conclusions from the literature on PFI contracts, finding that prices for services were high. Every interviewee in the PFI group believed prices paid for services were on the whole too high and some provided numerous examples. A poor outcome for services was not inevitable. Some interviewees provided examples where prices were reasonable and services of good quality. This often happened under circumstances where there was less information asymmetry and a good relationship. However ineffective contractual mechanisms made it more likely that the public sector paid above the market rate for services. The analysis shows that contract theory would have predicted that many of these mechanisms would be ineffective. The presence of information asymmetry, incomplete contracts and low powered threats mean that contract mechanisms are not effective. There are many examples of information asymmetries being exploited by PFI contractors, particularly by using risk models associated with the lifecycle of buildings to justify high prices for replacements. This thesis would argue that the penalty threat was weak and had no impact on contractor behaviour. These outcomes. Are consistent with game theory.

Long-term relationships lead to cooperation if there is a credible threat in place, which suggests relational mechanisms can play a role in negotiations, albeit a limited one. There is evidence that long-term relationships between the two parties can result in more cooperation. Only one interviewee suggested that there were significant levels of opportunism at the beginning of the

contract. In this instance the council was able to reduce the level of opportunism after challenging suggested prices over a long period of time. The majority of interviewees believed improved relations made agreements happen more quickly, but did not necessarily improve performance or value-for-money. The next section compares how these mechanisms operate in PFI and non-PFI schools.

9.3. Comparison of the performance of services between PFI schools and non-PFI schools

9.3.1 Introduction

This section compares the evidence collected from PFI and non-PFI schools to understand whether outcomes from PFI contracts are unique to this form of procurement and whether they are driven by the differences between PFI and non-PFI schools. The comparison examines the strengths and weaknesses of both types of procurement, in seeking to address research question two. The interviews from the PFI schools and non-PFI schools showed both differences and similarities in processes, as summarised in Chapter 5.

9.3.2 A comparison of satisfaction rates of services between PFI and non-PFI schools

The data collected showed differences in satisfaction rates for services between PFI schools and non-PFI schools. The largest difference was the range of opinions on prices for services. All the interviewees from the PFI group thought they were paying too high prices most of the time to PFI contractors for cleaning, catering and small repairs. In contrast, interviewees from non-PFI schools always thought they paid the right price for the same services. Opinions on the quality of services differed between the groups as well, but not as greatly. No more than two thirds of the interviewees in the PFI group thought cleaning and catering were high quality and the rest thought it was low quality. In the non-PFI group, at least two thirds of the interviewees thought cleaning and catering were high quality and the rest thought that their services varied over time.

9.3.3 Contractual incompleteness in PFI and non-PFI school procurement

The data from PFI and non-PFI schools can be compared by reviewing the contractual incompleteness features of each procurement type. The analysis above suggested that PFI contracts on soft services had features of incomplete contracts, such as being open to interpretation and hampering the response to additional demands. Soft services were mostly bundled into the PFI contracts and therefore part of a thirty-year contract with one company. In non-PFI schools, cleaning and catering were either delivered in-house or outsourced. When services were outsourced, the contracts were typically three years, with a break-out clause midway through the contract.

In non-PFI cases, shorter contracts were more complete since there was greater certainty of what was likely to happen in the next three years. Therefore, there were fewer gaps in the contracts and less need for contingency planning for a variety of circumstances. From the schools that outsourced catering, no interviewee said that the contracts for catering and cleaning were ambiguous and open to interpretation. The contractors were held accountable to output specifications measured through KPIs. However, the interviewees did give examples of having to renegotiate the contract because of their changing demands. An example a few interviewees gave was wanting to change the school dinner menu to include healthier options. No one reported difficulty in negotiating new options with their provider. All the contractors in non-PFI schools were willing to be flexible to accommodate new demands. Therefore, it did not matter as much as it did in PFI contracts whether output specification captured the service that needed to be delivered because they had responsive contractors. These forms of contracts had fewer of the problems typical of incomplete contracts, such as inflexibility, disputes over interpretation, renegotiation to address inadequacies or to include additional demands (Mansor and Rashid, 2016). However, there were no problems with inflexibility from contractors, nor ongoing disputes over interpretation that were difficult to resolve in non-PFI schools. This is in contrast to experiences in PFI schools when soft services were bundled into the contract.

Non-PFI school contracts did not have input specifications, although one school business manager said it was important to write into the contract that the responsibility for the equipment belonged to the contractor, otherwise the cost of catering could increase considerably. This suggested there was a need to include input specification in a positive way to ensure value-for-

money in non-PFI services, just as identified for PFI contracts. Non-PFI school contracts were different from PFI ones in that no benchmarking for soft services was included, because these contracts last three years and are then retendered. The shorter and therefore more complete contract was a better way of achieving value-for-money because it was effectively market testing prices every three years.

Having more complete contracts for outsourced services in non-PFI schools meant there was little experience of 'hold up' and value-for-money was achieved in negotiations. This can be seen by the high levels of satisfaction with the prices paid for the services, and no one thought that the quality of services was consistently poor. A key difference between PFI and non-PFI school contracts was the length of the contracts. The lack of clarity and the guarantee of a client for up to thirty years meant there was more room for opportunism from the supplier. There were more examples of 'hold up' in providing soft services in catering and cleaning under PFI than non-PFI contracts. Also, there was less flexibility amongst PFI companies in responding to changing demands. The contractors in non-PFI companies appeared to have more incentive to be flexible than in PFI companies.

9.3.4 Information asymmetry in PFI and non-PFI school procurement

We turn to analysis of how the problem of moral hazard affects both PFI and non-PFI schools. Earlier analysis suggested there were significant problems with moral hazard in PFI contracts because of asymmetric information over lifecycle costs. There was an improvement in outcomes when there was more monitoring of services and, conversely, a fall in standards when there was less monitoring.

A major difference in contract design between PFI and non-PFI schools was the lifecycle costs included in PFI contracts. PFI contractors had the responsibility to look after the lifecycle of the school building and ensure it was in the same condition at the end of the contract as it was at the beginning of the contract. This thesis would argue that the lifecycle costs written into PFI contracts had a significant impact on negotiating the price for small repairs and making changes to the building. This was driven by PFI contractors' risk models relating to the maintenance of the lifecycle of the building. There were problems of information asymmetry

over lifecycle costs, as the interviewees did not understand how small changes impacted the lifecycle cost significantly, which led to suspicion of moral hazard. In different councils, this was challenged on behalf of the schools and PFI contractors backed down from charging prices much higher than the market price later in the operational period contract for small repairs. Non-PFI schools did not have a contract where the lifecycle needed to be considered when negotiating on small repairs. Therefore, there was less information asymmetry regarding costs of services between non-PFI schools and contractors. This was the main reason why non-PFI schools were pleased with the costs they paid and the PFI schools were not. The non-PFI schools understood what they were paying for, whilst the PFI schools did not understand how the lifecycle costs were calculated and how this led to the pricing of their procurement.

I would argue that the contract mechanisms that helped the public sector client to achieve their outcomes were monitoring and auditing in both PFI and non-PFI schools. These reduce information asymmetries. For example, non-PFI school interviewee 5 from a non-PFI school who had outsourced catering with a group of other schools provided an example of how an increase in monitoring significantly increased standards for his school that had previously been variable:

> *'There was a bit of variation depending on the chef in charge. There is a standard menu that rotates on a monthly basis, so we were all on the same menu. There was an attention to detail that was lacking that they demonstrated in their pitch and we weren't getting that at all. We are now… When they won the contract, they came to meet with me. We work in cluster, all the other schools in the local arrangement. We, the heads, have a WhatsApp group as most people do and we took to taking photos of the food. Here, they suddenly upped their game here and the quality was much better, and the presentation was unbelievably better. I was taking photos of it every day and sending to the heads. When they had their monitoring meetings, they showed them pictures from [my] school and said, 'I want it to be like that'. So, we managed to lever up the quality for all five of us quite considerably.'*

The evidence from both PFI and non-PFI school demonstrates the importance of monitoring in achieving high quality services. It reduces the asymmetry of information between the two parties and therefore the opportunity for moral hazard to occur in an operating contract.

9.3.5 Relational contracting in PFI and non-PFI school procurement

The role of relationships in non-PFI schools was analysed to understand how it works as a negotiation strategy in comparison to experiences in PFI schools. The analysis of interviews based on PFI schools concerning relational contracting indicated that relational mechanisms worked as complements to contractual mechanisms rather than substitutes in negotiation. It was also concluded that there was no foundation for the concern that too much detail in contracts would discourage making use of relationships to reach mutually beneficial outcomes.

All interviewees from non-PFI schools thought the role of the relationship between client and provider was important for long-term success, although the provider needed to earn the trust of the client for a satisfactory outcome consistently over time. In PFI contracts, since a long-term contract is guaranteed from the beginning, the contractor has no incentive to impress the client or earn their trust. As a result, relationships are not able to play a role in improving client negotiation power. None of the interviewees from PFI schools thought that relationships could improve the price of services, but only that things were done quicker. In non-PFI schools, contracts were not long, but all said that a positive relationship was good for communication and getting things done quicker even though no one said it improved the price of services. Disputes over quality of services resorted to discussion of the contract and relational mechanisms, such as meetings, were used in a complementary way. If a dispute could not be resolved, the school would look for alternative staff or outsourced providers. The analysis of the interviews explored whether too much detail in services contracts undermined the relationship between the two parties, discouraging communication and encouraging opportunism. There was no suggestion in the data that contract details hampered negotiations. No interviewee from non-PFI schools said the amount of detail in the contracts restricted them in their negotiations with their contractors. They were able to work out problems through their relationship together with contractual mechanisms such as financial deductions and break-out clauses.

9.3.6 Game theoretical perspective on PFI and non-PFI school procurement

We compared credible threats in PFI contracts with credible threats in non-PFI contracts for services. As discussed earlier, the threat of small financial deductions and warnings for poor performance were not very credible threats and did not change the PFI contractors' behaviour. The differences in satisfaction with outcomes between PFI and non-PFI schools can be attributed to the effectiveness of credible threats in the contracts. Having short contracts and break-out clauses was more effective for managing cleaning and catering performance. From the point of view of game theory, these were more credible threats because losing a contract would have a larger impact on the contractor than a small financial deduction. It is a threat that the public sector could carry out because alternative suppliers or producers could be brought in-house. Therefore, this worked better as a threat than the penalties in PFI contracts that were small compared to the value of the contract and therefore provided little incentive to avoid them. Penalties are sometimes used in non-PFI contracts. However, interviewees thought they were not particularly effective in managing behaviour, as they were generally too small.

An important outcome from boosting client-side negotiation power is that it led to greater satisfaction with service performance. This was driven by the amount of competition in the tendering process for services. There were differences in levels in satisfaction within the PFI group because a third of the schools did not have catering included in the contract. All of PFI schools which excluded catering were significantly happier with the performance of catering and the PFI contract in general in comparison to the other PFI schools which had catering included. Those schools could choose who they wanted as their caterer and were pleased with their performance. On the other hand, half of the other PFI schools were frustrated that their PFI contractors were slow to respond to any changing needs or concerns over performance.

A number of non-PFI schools stayed with their contractors for over ten years, even though they retendered the contract every three years. The school business managers said they decided to stay with the same contractor because they understood the needs of the school more than other contractors. Therefore, this thesis would argue, as predicted by game theory, cooperation was fostered between the two parties when there were credible threats in place. This is in contrast to the experience in PFI contracts, where the lack of credible threats meant there was not the same level of cooperation between the school and the PFI company.

9.3.7 Summary

The comparison between the two groups showed poor design of contractual mechanisms in PFI contracts resulted in PFI schools being in a much weaker position to negotiate than non-PFI schools. The different lengths of contracts for soft services significantly changed the level of contractual incompleteness, leading to fewer disputes and higher rates of satisfaction with services. With non-PFI schools having the option to either to change contractors or produce in-house if they were unhappy with the performance, the option of breaking out of a contract proved more effective as a credible threat than the mechanisms of financial deductions in PFI contracts, which game theory would have predicted. Consumer power was boosted in the market by having access to different options and made it more necessary for the producers to respond to clients' needs, as they faced the threat of losing business. There was more cooperation and trust between schools and contractors in non-PFI schools because the contractual mechanisms and relational mechanisms complemented each other.

There were some similarities in both forms of procurement. They both faced problems managing contractors because of asymmetric information, but PFI schools were more vulnerable to hold up because they could only work with one contractor and 'lifecycle' costs of the building significantly affected their knowledge of what changes to the buildings could cost. Monitoring and auditing reduced asymmetric information in both types of schools. When there was less monitoring, services were lower quality and when monitoring increased, services would improve. The comparison of the two groups is consistent with literature on PFI and predictions from contract theory. Principal-agent theory would predict that less asymmetric information would lead to better results for the principal.

9.4. Factors from the external environment affecting the outcomes of negotiations in PFI schools and non-PFI schools

9.4.1 Introduction

Question 3 explores how factors from the external environment influence the outcomes for both PFI and non-PFI procurement. In order to understand the causal relationship between contract design and outcomes of services, environmental factors were identified from interviews and analysed for their impact on the operational contracts. Figure 3 shows the factors

from the external environment that influenced the outcomes of services in terms of quality and price competitiveness:

The four theoretical approaches (namely contractual incompleteness, asymmetric information, relational contracting and game theory) are applied to understand how well the contract design in services copes with various external factors. We analyse how the environment affects the choices schools have in procurement, how well it supports its negotiation strategy for services and how contract design adapts to new and unexpected circumstances in different schools.

9.4.2 Contractual incompleteness

All contracts are incomplete because they cannot cover every situation that could arise in the operational period. Two factors that schools do not have control over are the fluctuation in population and labour market conditions. Staff in PFI schools needed flexibility from contractors to prioritise different needs. However, this was rarely achieved as PFI contractors were rigidly committed to the contract. Population fluctuations did not pose as much of a problem for non-PFI schools. Their procurement options meant they were more in control of how they prioritised their spending. Non-PFI schools had shorter contracts with break-out clauses for soft services, which meant they could readjust spending to respond to fluctuations in pupil population.

Labour market conditions became an issue for incomplete contracts because changes in management and staff caused changes in quality of service. One reason for this in PFI contracts was that it affected the interpretation of the contract. There was not much the school staff could do in the negotiation setting and they often had to accept fluctuating standards from their PFI providers. In non-PFI schools, they were affected by high turnover of staff in cleaning, which also affected the quality of the service. However, non-PFI schools had more options to respond to this situation, by choosing an alternative supplier or bringing the service in-house.

9.4.3 Asymmetric information

Asymmetric information between schools and contractors played a significant role in determining prices paid for services. Earlier, it was concluded that monitoring and auditing

services reduced the information asymmetry and achieved better prices and quality of services. Local government gave support to schools by challenging quotes and referring to the contract, holding greater expertise in this regard than the school staff. The interviews from PFI schools suggest that funding for local government service had an impact on value-for-money. The external factor of central government funding is one that schools do not have control of. This affected the level of information asymmetry between the public sector and the PFI contractors and in turn influenced outcomes, in particular prices paid for services. In non-PFI schools, they received some support from the local council on choice of suppliers for services. However, the interviewees from non-PFI schools did not mention that the cuts in funding for local government had any impact on their procurement strategy. Non-PFI schools were either using providers suggested by the local council, or they made use of the market to find their own suppliers. Therefore, local government funding had less of an impact on non-PFI schools than PFI schools because it did not play a role in reducing information asymmetry between the two parties.

Central governments give support to PFI and non-PFI school through different forms of guidance. The guidance they provided PFI schools came in suggesting how to draft a PFI contract. What central government believed to be best practice evolved over time. In the early 2000s, the Best Value framework emphasised the importance of a good relationship to reach good outcomes for the public sector (ODPM, 1998). Also, catering was not included in PFI contracts, and only those that started closer to 2010 included catering services. By 2012, central government policy changed again, suggesting soft services should not be part of any PFI contract (HM Treasury, 2012). Changing advice altered the design and scope of PFI contracts which, in turn, affected the level of information asymmetry between the public sector and the PFI contractors.

The support that central government gives to non-PFI schools includes datasets containing information on how much other schools have spent on different services. They run training programmes for school staff on how to procure and give guidance on how to achieve value-for-money. For example, the government advises that school business managers should get three quotes for services they procure. The central government's support for schools has evolved and their efforts have helped to reduce the information asymmetry between non-PFI schools and their providers.

9.4.4 Relational contracting

There are relationships between the council and the PFI contractor, the school and their contractors, and the management team and staff delivering cleaning and catering. From the analysis of the interviews, relational mechanisms acted as a complement to PFI contract mechanisms. The relationship between school staff and their contractors in non-PFI schools was considered important by interviewees and it did improve outcomes through improved communication and understanding of each other's needs and expectations.

The external environment affected relationships between the public sector and their contractors through labour market conditions and staff turnover. The quality of staff depended on the success of the recruitment process. Regardless of whether the schools were PFI or non-PFI, if schools were able to find staff that were capable of performing well, the schools found it easier to form better working relationships leading to good performance. If schools employed staff that were not responsive to their requests, this would lead to disputes and poorer services.

The type of area influenced typical labour market conditions and had an impact on the schools' success in recruitment. In urban areas it was easier to recruit staff, although there tended to be a high turnover in cleaning and catering. In rural areas it was harder to recruit new staff, though there was lower turnover as staff were more likely to stay longer in the team. The different levels of turnover affected how much the schools invested in relationships with their staff. Higher staff turnover made it harder for schools to achieve consistent standards in their services because it was harder to develop effective communication and a mutual understanding of what was expected in service delivery. Lower staff turnover led to more harmonious relationships, better understanding of the schools needs and expectations and consistently good performance.

9.4.5 A game theory perspective

The game theory perspective on the contract has been used to analyse whether any threats that contractors faced over poor performance were credible. A key determinant of the credibility of threats was access to the market to choose alternative suppliers. The data analysis suggested this was the most effective threat.

The more access that schools had to the market for alternative suppliers, the more likely that they were to have success in procurement. The legal status of non-PFI schools determines how much access the schools have to the market. Schools with academy status have the most freedom to choose their suppliers because they are not under the control of the local authority. Maintained schools and faith schools face restrictions in procurement because their buildings are under the control of the local authority and religious authority respectively. There were more examples of unresolved disputes with suppliers in maintained schools and faith schools, where they had to choose suppliers from an approved list rather than choosing themselves from the market. Academy schools did not report any experience of an ongoing dispute with their suppliers which they were finding difficult to resolve.

9.5. Summary

The data collected was analysed through the four-contract theory lenses in order to provide insights into the relationship between different forms of procurement and their outcomes.

This thesis would argue that PFI contracts were too incomplete because they were for a long period, too many services were bundled into the contract and there was no access to alternative suppliers. The output specification for soft services was insufficient and the lack of input specification led to ineffective contractual mechanisms to reduce contractual incompleteness. This made the contracts difficult for the public sector to manage because of uncertainty in the operational period. This can be seen from the numerous examples of experiences amongst PFI school staff that were typical of incomplete contracts. The interviewees had issues interpreting contracts for soft services and it was problematic to negotiate additional demands. The PFI contractors' response was often inflexible and they stuck rigidly to the contract. There were often examples of 'hold up' when negotiating prices, because the public sector did not have the option to seek alternative suppliers. The theory of incomplete contracts predicts many of the experiences that the PFI school staff had (Goldberg, 1976; Williamson, 1985; Hart, 1995). The problems with output specification were consistent with studies examining the impact of output specification in PFI contracts (Barlow et al., 2011; Javed, Lam and Chan, 2013). The suggestion that inflexibility amongst PFI contractors is a consequence of incomplete contracts is a unique finding of this study.

Related to the problem of incomplete contracts is the issue of information asymmetry in PFI contracts. Since the contracts included a wide range of services, the potential for asymmetric information between the public sector and PFI contracts was high. This was also complicated by the fact that PFI contracts are lifecycle contracts, and therefore the risk models that PFI contractors use are difficult for the public sector to understand, handicapping them in negotiations because of the issue of asymmetric information. This issue was mitigated somewhat through intervention from the local authority. Challenging quotes, monitoring services and auditing had the effect of reducing asymmetric information between the public sector and PFI contractors and this led to better prices and quality of services. Literature on asymmetric information would predict the results that emerged from PFI schools.

Another reason for the ineffectiveness of contractual mechanisms to manage PFI contractors' behaviour was that the public sector did not have credible threats from the perspective of game theory. Financial deductions for poor performance or lack of availability were insufficient to change the PFI contractor's approach to services. Furthermore, the public sector disliked using penalties, warnings or legal action to counter poor performance because they believed it would damage the relationship, leading to costly disputes and poorer service delivery. Game theory analysis of how threats work in practice was consistent with the experiences of PFI school staff. Weak threats offered no incentive for contractors to change their behaviour in the operational contract (Binmore, 2007; Morgan, Katz and Rosen, 2009).

The analysis of the role that the relationship played in negotiations suggested that it could improve the quality of services and the speed of delivery. A good relationship helped communication between the parties and improved PFI companies' understanding of what the schools wanted. However, it had little impact on helping the public sector achieve value-for-money. PFI contractors stuck closely to the arrangements made in the contract and used risk models to suggest prices regardless of the state of the relationship. The data analysis suggests that the UK government relied on cooperation and good relationships too much to deliver better outcomes in PFI contracts with their Best Value Framework (HM Treasury, 1998). It could bring about some improvement in services in some councils, depending on the strategy of the PFI company in different areas. However, it could not bring about radically improved outcomes in terms of value-for-money.

Overall, the PFI contract was not designed well to cope with opportunistic behaviour. It was inevitable given the contract design that value-for-money was going to be difficult to achieve and managing the quality of services would be difficult. Literature on contract theory predicts much of the behaviour that PFI contractors displayed during the operational period as well as the outcomes of the contract.

The comparison between PFI schools and non-PFI schools provided insights over what was and was not unique about the experience of PFI procurement and the outcomes of the contract. The shorter contracts for soft services in non-PFI schools meant problems associated with incomplete contracts did not occur as much compared to PFI schools. There were a few problems with the interpretation of the contract and negotiating additional demands or renegotiating where the contract was inadequate. The fact that non-PFI schools had much shorter contracts meant there was more certainty in the operational period, and unexpected circumstances were less likely to arise. The output specification was not always adequate in keeping standards in cleaning and catering high, which was also the case in PFI schools. However, contractors that non-PFI schools used were much more willing to be flexible and accommodate new needs. Again, the experiences that non-PFI schools had in comparison to PFI schools in soft service procurement is consistent with theory on incomplete contracts (Goldberg, 1976; Williamson, 1985; and Hart, 1995). A contribution of this research is examining and analysing the incompleteness of non-PFI soft service contracts compared with PFI school soft service contracts and considering why outcomes are reached, through the lens of this theory.

The problem of information asymmetry was a concern for both PFI schools and non-PFI schools. Both types of schools gained from more monitoring, auditing and market testing of quotes because these activities reduced information asymmetry. The problem of information asymmetry was more acute in PFI contracts than in non-PFI procurement because of the lifecycle of the PFI school building and the associated risk models. Non-PFI school services were not costed on a building lifecycle basis and therefore negotiations did not involve risk models developed by the private sector. The experiences that both PFI and non-PFI schools had are consistent with theory on asymmetric information (Binmore, 2007). The schools' experiences show that information asymmetry and moral hazard in operational contracts are problems in any form of procurement and therefore need to be addressed regardless of the procurement approach.

The data showed that the differences in contractual mechanisms that were designed to act as threats in PFI and non-PFI schools played a significant role in influencing contractor behaviour and outcomes of soft services. Break-out clauses midway through the contract and retendering the contract every three years provided a much greater incentive for contractors to deliver the services that schools wanted at a competitive price, because they faced the threat of losing their business to an alternative supplier. On the other hand, PFI contractors faced the threats of only small financial deductions and benchmarking, which did not affect their profitability. They rarely faced the prospect of warnings and legal action from the local council because the council was concerned with damaging the relationship. Therefore, the threats were not credible, which explains the difference in behaviour of contractors in PFI and non-PFI schools from this data set. Analysing the threats in both PFI and non-PFI soft services contracts from a game theory perspective offers a unique insight from this research in explaining differences in outcomes.

Where PFI and non-PFI schools appear to be similar in their experience is in the impact of relationships with their contractors on outcomes of soft services. Relational mechanisms are complementary and improve smooth running of contracts. They did not replace the contract, as in all schools the contract was always referred to in negotiations. Therefore, the experiences of the school staff in both PFI and non-PFI schools is more supportive of literature arguing that relational mechanisms act as complements rather than substitutes (Poppo and Zenger, 2002). A good relationship improved communication and facilitated what the public sector desired from cleaning and catering. To a modest extent it could reduce opportunistically high pricing in PFI contracts, although, for the most part it made no difference in operational PFI contracts. There were no examples from non-PFI school interviewees where a good relationship improved value-for-money.

Analysis of interviews showed that factors from the external environment that were not in a school's control impacted on the outcomes of services. Labour market conditions influenced schools' ability to recruit quality staff. It was easier to recruit staff in urban areas than in rural areas. However, there was higher staff turnover in urban areas which affected the consistency of services. The location of the school sometimes determined whether outsourcing services were an option. Schools that were located in more remote places had fewer options in procurement, affecting their access to the market. It was more difficult in rural areas to persuade

companies to deliver food daily to their area or to recruit staff who would have to travel a long way to work. In urban areas there was more choice of providers and it was easier to recruit in-house staff due to better transport links. The type of support that schools received from the local council varied across the country. The quality of the help depended on the council staff and how good their recommendations were for soft services and suppliers for building work. Different councils had different solutions to catering and cleaning. Some councils would choose a supplier and negotiate a contract covering several schools and therefore some non-PFI schools had little say in the process. Other councils would provide a list of suggested suppliers but not purchase on behalf of schools. In PFI schools their success in procurement was also influenced by local council support because of the level of monitoring they provided. The cuts in funding of local councils led to a fall in the monitoring of PFI contractors and PFI schools suffered as a result of this.

10. Conclusions

10.1. Introduction

This chapter summarises and discusses the main conclusions from the research, returning to and addressing the three key research questions that were posed in Chapter 6 as the substantive issues for this thesis. The chapter begins with a summary of the analysis and findings. It discusses the contributions to knowledge that this research brings to the subject of hard and soft services in PFI and non-PFI school contracts, namely: combining documentary analysis with interviews enabled identification and analysis of key factors impacting the negotiation process; examining the influence of the external environment on hard and soft service contracts; acknowledging and analysing the similarities and differences within and between the groups of PFI schools and non-PFI schools; and testing a number of contract theories to explain the operation of the contracts. The chapter then considers the policy implications of those findings and conclusions, before reflecting upon the research undertaken, its contribution to knowledge, its limitations and the priorities for future research on the subject of procurement/contracting mechanisms.

10.2. Findings in relation to the key research questions

As discussed in Chapter 4, the three key research questions of the thesis are:

1. How effective are PFI contract mechanisms in supporting the public sector's negotiations for services?
2. How do outcomes compare between PFI and non-PFI procured contracts? What are the similarities and differences in PFI and non-PFI procurement?
3. What external environmental factors affect service negotiation success in schools?

We discuss in turn the key conclusions for each of these research questions.

10.2.1 Conclusions on the effectiveness of negotiating tools under PFI

The first question asked which contract mechanisms in PFI contracts are effective in supporting negotiations between public sector clients (schools) and PFI contractors. The analysis of the experiences of school procurement staff provided compelling evidence that the PFI contract design is inherently flawed. This was felt to be the case because the contract is incomplete and also because the mechanisms to counter opportunism are weak. The evidence gathered in the research clearly indicated that, without access to alternative suppliers, it is very hard for clients to negotiate with PFI contractors on soft services. Therefore, under current rules, it proved difficult to achieve the desired goals in service delivery under PFI. Moreover, with regard to operational contracts, the available mechanisms were considered ineffective in facilitating negotiations. As a consequence, schools would be unlikely to receive either a competitive price or consistently good quality services.

Significant amounts of evidence were gathered during the research of the need to renegotiate PFI contracts. This was necessary because in many instances, bundling all the soft services into a single PFI contract usually resulted in some items being accidently omitted, making it incomplete. This problem (of incomplete contracts) has been discussed in similar terms by various scholars, notably, Williamson (1985), Hart (1995), Tirole (2009) and Badenfelt (2011). Such problems have occurred especially frequently in PFI soft services. The existence of these characteristics led to disputes, delayed work, opportunistic behaviour, inflexibility to adapt to new demands or changing circumstances. Incomplete contracts resulted in schools and PFI contractors having to work through unexpected circumstances, such as changes in pupil population and implementing new technology, to deliver new outcomes. In addition, the fact that PFI schools were denied the right to acquire their soft services from any supplier other than the PFI contractor meant they were always vulnerable to opportunistic behaviour from the PFI contractor. As clients, PFI schools often suffer the consequences of incomplete contracts.

The interviewees believed they experienced such difficulties in negotiating with PFI contractors on services because the contract mechanisms designed to counter opportunistic behaviour were generally ineffective. PFI contractors rarely had to worry about sanctions even if they performed poorly. The risks of losing a client were negligible because the schools could not go elsewhere for their services and any financial penalties for inadequate service tended to

be so small as to have negligible impact on profitability. Benchmarking mechanisms, threats of legal action and other such warnings had mixed results in practice. The mechanisms that were regarded as having the greatest impact were when the schools sought comparator quotes to test pricing of small repairs and challenged the PFI contractors. While the research did identify a few examples of schools believing they were successful in services negotiations; generally, the experience was that such success was very hard to achieve.

The interviews also highlighted how negotiation processes for services were frequently made more difficult due to asymmetric information between the clients and the PFI contractors. Risk models associated with the lifecycles in PFI contracts exacerbated the problem of asymmetric information between the clients and the PFI contractors and it appeared that PFI contractors were opportunistic in exploiting this asymmetry. It should be noted that no evidence was presented in the research to suggest that the inclusion of soft services within a PFI contract necessarily improved performance in overall running of the buildings. Developing better knowledge and understanding among head teachers and their administrative support staff was found to be of considerable benefit in achieving improvements in negotiating on services.

The research found that PFI schools experienced limited use of relational mechanisms and they came in useful in only a few cases when negotiating with PFI contractors on services. While central government guidance from the late 1990s emphasised the importance of managing relationships between clients and PFI contractors (ODPM, 1998), the evidence drawn from this research suggests that any such benefit from cultivating these relationships was overstated if the goal was to achieve better value-for-money. Good relationships between the PFI contractor and client school typically only resulted in improved communication between the parties and speedier resolution of issues in the delivery of services, rather than significant improvements in value-for-money. Better relationships were also the reason why there were higher satisfaction rates with quality than with prices. There was mixed satisfaction with the quality of services in PFI contracts because this was driven by the relationship that the school staff had with the PFI contractors and the contractors' willingness to listen to the schools' requirements. Performance of services tended to fluctuate with changes in PFI contractors' staff.

The mechanisms in the PFI contracts considered in this research were mostly viewed as ineffective in helping schools in the negotiation process with PFI contractors during the operational period. As a result, good outcomes in negotiations on services were relatively rare.

The implication of these research findings is that the nature of soft services makes them unsuitable for inclusion within long-term contracts.

10.2.2 Similarities and Differences between PFI and non-PFI schools

The second research question asked how outcomes in terms of price competitiveness and quality of services compared between PFI and non-PFI schools and explored similarities and differences between PFI and non-PFI schools in procurement. The comparison of satisfaction rates showed that non-PFI schools had more positive experiences in procuring soft services, both from a price and quality perspective. This was because providers in non-PFI schools were more willing to be flexible to the schools' needs than PFI contractors and faced more competition.

However, there were positive and negative experiences for all types of schools in negotiating for services. The comparison of data between PFI and non-PFI schools suggests there are three factors in the procurement process that lead to improvements in schools' success in achieving a competitive price and quality of services, regardless of the type of school. First, the more access to the market that the schools had, the more likely schools were going to be satisfied with the end result. This could be observed within the non-PFI school group as well as the PFI group. Academies had the most access to the market in all areas of procurement, (whilst other non-PFI schools had some form of restriction to accessing potential suppliers), which led to more success in negotiations on services. This phenomenon was also observed in the PFI school group. In PFI contracts where catering was outsourced, the school could choose caterers from the market. This led to significantly higher satisfaction rates with price and quality of catering compared to PFI contracts that included catering. This indicates that better procurement outcomes occur when schools have access to a range of potential suppliers.

Second, less asymmetric information improved results in procurement for both PFI and non-PFI schools. There were examples of both types of schools suffering from opportunistic behaviour when asymmetric information was present. When strategies were used to reduce asymmetric information, schools experienced success in challenging and negotiating new standards/prices. These strategies included collecting quotes from the market to gauge competitive pricing and monitoring services to check standards were consistent. The evidence

suggests that asymmetric information is a problem for all types of schools in operational contracts and therefore always requires management.

Third, more complete contracts are important in helping the public sector to manage an operational contract. This was one of the reasons for the difference in satisfaction rates with soft service procurement between PFI schools and non-PFI schools, because the length of the contract was a characteristic of PFI procurement. More complete contracts were shorter; needing to cover fewer unexpected circumstances and written in a less ambiguous way. In circumstances where contracts were more complete, there were fewer disputes and the services met the expectations of the public client. In non-PFI schools, their shorter cleaning and catering contracts made managing and negotiating with contractor staff much easier than in PFI schools that had to negotiate with one provider over a thirty-year contract. The PFI contractors lacked the incentive to be flexible and could take advantage of the ambiguity of the contract. The evidence in this research confirmed that more complete contracts led to fewer of the problems associated with incomplete contracts. The evidence in this research also demonstrates that strategies should be used to reduce forms of contract incompleteness.

10.2.3 The impact of the external environment

The third research question focused on how the external environment affects outcomes of hard and soft service procurement in all types of schools. The analysis of the external environment suggested there were six factors that affected the procurement and outcomes of services: conditions in the labour market, demographics, location of the school, support from local and central government and the legal status of the school all had an impact on the success of the procurement of services, regardless of the type of school.

According to the findings of the research, the location of the school influenced the success that the schools had in procurement. This was due to many factors, including the level of support received from local councils. Some PFI schools had more support than others in collecting quotes and challenging prices. Non-PFI schools faced different restrictions in accessing the market depending on the approach that their local council took. The legal status of the school was linked to the factors of local and central government support because it determined what support they were eligible for. The research demonstrated that local council support could have

a positive or negative impact on the outcomes of services. Factors that had a notable impact on the need and ability to be adaptable in delivering services were demographics (population fluctuations), whether the school was rural or urban, and local labour market conditions. These factors affected the procurement options that schools had, for example in recruiting quality staff and contractors. This in turn had an impact on the outcomes of services. These external factors meant that no type of school was guaranteed to have a certain outcome because of the features of their contract design or procurement process. Neither type of school could achieve a consistent level of service because external factors changed during operational contracts.

However, the research highlighted differences in how external factors impacted PFI and non-PFI schools. The external factors affected the outcomes negatively in PFI procurement because operational PFI contracts are inflexible. This resulted in renegotiating changes in PFI contracts being very difficult. Therefore, changes to external factors created more problems in managing a long operational contract. The external factors affected the outcomes in non-PFI procurement in a way that it changed the available options. The more options that non-PFI schools had, for instance, by being in an urban area and with a good labour market to recruit from, the better the performance of services. The fewer options they had, for instance, being in a rural area or with a small labour market to recruit from, the worse the production and delivery of services.

Overall, the analysis of the external environment provided more context in how the procurement process worked in practice. It also demonstrated how factors out of the schools' control influenced outcomes regardless of procurement strategy. This context combined with details of contract design and regulations schools procure under provided an in-depth investigation of causality in service delivery.

10.3. The contribution of the research

The research has provided many new insights for our understanding of PFI contracts and school procurement. Unlike most other studies of public sector contracting, this research has taken the form of a comparative analysis of operational PFI and non-PFI contracts, doing so for both hard and soft services. A government report (HM Treasury, 2009) involved a similar comparison in the context of the health sector, analysing the costs of small repairs in hospitals. The Audit Commission compared the costs, specifically of cleaning and catering in PFI and in

non-PFI schools (Audit Commission, 2003). However, other than these and a few other empirical studies, there has been little to date in the peer-reviewed literature providing insights on such contracts. There are no comparative, multiple case study reviews of hard and soft services in PFI contracts discussing the quality of services as well as prices. This research collected evidence on both aspects of the performance of services in PFI contracts as well as in non-PFI projects for comparative analysis on how outcomes are reached. The evidence demonstrated that the quality of services was higher in non-PFI schools than in PFI schools and that this was driven by having access to alternative suppliers, because contractors were more willing to be responsive to the schools' needs as they faced the threat of losing their contracts. Having a comparator aided understanding what was unique about the PFI experience. The comparisons helped to demonstrate what worked and did not work in operational contracts in the school sector. There was evidence that outsourcing cleaning and catering could work well under the right conditions.

Another special feature of this study has been the gathering of information on operational contracts through interviews to capture the experience of managing and negotiating from the public sector's perspective. The objective of the research was to develop a nuanced picture of contract management in operational contracts and to capture the complexities of the situations that arise in renegotiations. Recording the narrative of negotiations between schools and their contractors provided a description of events and allowed me to develop interpretations of the issues arising during contracts from the participants' perspective. Collecting data for analysis through qualitative methods enabled the examination of causation between elements. The data collected from interviews allowed investigation of the elements involved in procurement, how they combined and led to outcomes in PFI and non-PFI schools. The analysis included a breakdown of social structures and an identification of all contractual and relational mechanisms. This included guidance, support for schools from other institutions and factors from the external environment impacting operational contracts for services in schools. Documenting interviews and experiences captured the context in which PFI and non-PFI schools work, facilitating examination of the similarities and differences between the two approaches and deepening understanding of the various mechanisms, actors and institutions, and the causes and consequences of their interactions.

Other studies have interviewed staff to capture their experiences and carried out qualitative analysis (Lonsdale and Watson, 2007; Robinson and Scott 2009; Demirag and Khadaroo 2010;

Javed, Lam and Chan, 2013) and have discussed the effectiveness of one or two of the contract mechanisms (HM Treasury, 2009, 2018). However, those studies did not record and analyse all the different elements of the PFI contract and nor were contracts in non-PFI procurement in their entirety. In this research, the interview approach combined with documentation analysis recorded all the elements involved in the process of negotiation and assessed their impact.

This study is also one of very few to recognise that not all PFI contracts from the same sector are quite the same and, moreover, that not all non-PFI schools behave the same way in procurement (Henjewele, Sun, and Fewings, 2011; HM Treasury, 2018; Lonsdale and Watson, 2007). In examining differences between PFI and non-PFI schools, the research for this thesis has highlighted significant heterogeneity with regard to contract design and approaches to procurement. This is a theme that, as yet, has hardly been raised in literature on PFI contracts, and the consequences have scarcely been considered. PFI contracts have often been treated and discussed as a group with homogenous characteristics. The analysis of differences within both PFI and non-PFI school groups has provided insights about the importance of certain contractual features of cleaning and catering procurement.

The research for this thesis also contributes fresh insights concerning the impact of the external environment. Some aspects of that environment have certainly been touched upon in the published literature, notably the impact of the 2008 global world recession on the cost of PFI contracts and government support (HM Treasury, 2012; Pollock, 2012). However, there has been neither a detailed survey nor discussion of the range of potential external factors.

In this thesis, the documenting of experiences of school staff has ensured a much more comprehensive analysis of how the external environment can impact on procurement outcomes, regardless of the contract design. It has underlined just how much of the result is down to the procurement approach, and has provided greater understanding of the causal links between the procurement approach and services outcomes. In this respect, the significance of labour market conditions and school location are recognised as affecting outcomes, at least in relation to services.

In addition, this research has involved a significant amount of theory drawn from contract theory literature. Applying such theory in this analysis suggests that much of the schools' experience could be predicted by theories on incomplete contracts, asymmetric information

and in particular moral hazard and game theory. By analysing interviews using incomplete contract theory, it was apparent from the analysis that contracts that had the characteristics of being more complete were more successful from the schools' point of view. Any comparison of more complete service contracts with less complete contracts demonstrated that problems of interpretation and inflexibility of the contractor occurred less in more complete contracts. The difference in experiences and satisfaction rates between the more complete PFI contracts and the less complete PFI and non-PFI cleaning and catering contracts was predictable from the perspective of incomplete contract theory.

A further important contribution of this research is a better understanding regarding asymmetric information between schools and contractors. In this regard, it is clear that reducing the level of asymmetric information is important in the pursuit of better prices and higher quality services. In the research, both PFI and non-PFI schools had poor experiences in procurement when asymmetric information featured significantly. The theory of 'moral hazard' predicts that the producer would take advantage of their superior knowledge of the production process, as observed in the research data. The theory regarding asymmetric information assumes that problems of moral hazard are less likely to arise where there is less information asymmetry and from the evidence of this particular research at least, the indication is that this generally holds true. Greater monitoring and auditing of services reduced the informational asymmetry concerning the production process and therefore hidden actions from the contractors were less common for all types of schools when this was present.

Another point to note is that the data confirms predictions from a game theory perspective relating to credible threats and their impact on contractors' behaviour. The need for threats to be designed in a credible way was clearly an important factor in seeking to manage opportunistic behaviour. The research also tested the concept of relational contracting, which has been discussed as a solution to the problems of PFI contracts (ODPM, 1998; Lonsdale and Watson, 2007; Javed, Lam and Rashid, 2013; Mansor and Rashid, 2016). This research analysed interviews to understand the role that relationships played in negotiations and therefore contributes to the discussion on whether relational mechanisms act as substitutes or complements. Also, from documenting experiences of negotiations in operational PFI contracts, it has contributed to understanding what could be achieved with relational contracting.

The findings from this research appear consistent with other analyses in the published literature. For example, it accords with research on output specification in PFI contracts by Javed, Lam and Rashid (2013), who concluded that output specification is too ambiguous to be useful and leads to more disputes. This research also concurs with the findings and conclusions of others concerning value-for-money in PFI contracts and the widespread suggestion that non-PFI contracts are likely to offer better value-for-money (Mott MacDonald, 2002; Pollock, 2012; HM Treasury, 2012 and 2018). Similarly, the findings in this research about the value of risk models in PFI contracts and on the problem of the life cycle of PFI buildings, generally aligns with conclusions presented elsewhere (e.g. HM Treasury, 2012).

10.4. Policy implications

The comparison between PFI and non-PFI schools suggests that greater access to the market, reduced asymmetric information and that shorter and more complete contracts led to better results in service procurement. Given that the analysis explores what leads to good and bad results in both PFI and non-PFI schools, this has to have policy implications for best practice in school procurement for hard and soft services.

The findings from this study suggest that the school procurement process should be designed so that schools have as much access to the market as possible. For example, this would logically involve adding in 'break-out' clauses in soft services contracts and putting the contracts out for tender every few years. The ability to include more potential suppliers in a competitive process gives the public sector more consumer power. Bundling soft services into PFI contracts reduced the public sector's negotiation power considerably and made PFI contracts inflexible through sticking rigidly to the wording of the contract in negotiations. There was little credible threat to give the PFI contractors the incentive to be responsive, in the absence of competition. Lack of access to the market also had a negative impact on non-PFI schools in procurement. The local council's purported support in providing a short list of two or three suppliers to non-PFI schools appeared, in practice, to be counter-productive and to hinder a school's ability to receive the service they wanted. A policy implication of this is that schools should be encouraged to make their procurement process as competitive as possible and schools should be trained to fully navigate and take advantage of potential suppliers rather than have the council choose providers for them.

The findings from the research generally support the government's rationale for taking soft services out of PFI contracts (HM Treasury, 2012), to improve value-for-money for services and eventually to drop PFI contracts as a procurement tool (HM Treasury, 2018). The research suggests that the PFI contracts observed in the data collected did not achieve some of the predicted benefits, such as more innovation in the production process or synergies from being part of the lifecycle of the building contract (NAO, 2011). Nor did they achieve value-for-money. This view is backed up by evidence on PFI contracts from the UK government (HM Treasury, 2018). Taking soft services out of the PFI contract reduced the incompleteness of the contract design and the asymmetry of information of working with one contractor for all services. PFI schools which did not include catering in their contract did not experience problems associated with incomplete contracts and information asymmetry, such as 'hold up' and inflexibility in negotiations.

Reducing information asymmetries is very important in achieving a competitive price for services and keeping up standards in services for both PFI and non-PFI schools. Cuts in local council funding affected the success of PFI contracts and examples from non-PFI schools demonstrated that more monitoring could lead to significantly higher and consistent standards. This research suggests that investment into the monitoring and auditing of all contracts from school and council staff could bring a significant improvement in results. Regular monitoring and auditing would enhance the consistency of good quality services in schools.

Another policy implication from the evidence is that soft services are not suitable to be combined with a lifecycle contract for a school building. The UK government believed that drafting PFI contracts which would look after the lifecycle of the building would encourage innovation in production because of the synergies of hard and soft services. The evidence in this research suggests that the PFI contractors did not bring in innovations to improve the quality of soft services or help to look after the school building. Instead, there was evidence that PFI contractors managed production to achieve the profitability they wanted from the contract, and therefore the contracts, in effect, facilitated opportunistic behaviour.

Soft service contracts of short duration work in the schools' favour because they reduce the problems associated with incomplete contracts. These problems include the interpretation of the contract, hold up on prices and inflexibility of the contractor in renegotiating new terms or

additional demands. When cleaning and catering services were contracted separately, these contracts tended to be of three years duration with a break-out clause midway and did not suffer much from these problems. There were fewer changes in staff to cause problems with interpretation. The lack of guarantee that contracts would be renewed meant contractors for non-PFI schools were much more willing to be flexible. The analysis implies that contracts for soft services should be up to three years with a break-out clause in the middle, across all schools, as this is the most successful contract design, reducing the incompleteness in the contract and making it more manageable. Given that Key Performance Indicators created disputes in operational soft service contracts, there should be a discussion with school procurement staff regarding what features really do capture the essence of catering and cleaning, in order to be more useful in practice.

The examination of the impact of contractual mechanisms from the perspective of game theory suggests that the threats in PFI contracts need to be redesigned to be more effective in practice. Financial deductions in PFI contracts were too small to create an incentive to change the contractors' behaviour, and this was also true in non-PFI schools**.** If financial deductions are to be included in contracts, the game theory approach suggests they need to be larger to deter poor performance. The benefits of opportunism in an operational contract need to be lower than the cost of opportunism in order for financial deductions to be an effective deterrent. The implication from the evidence is that the size of the financial deductions in contracts needs to be re-examined for both PFI and non-PFI schools.

Not only were threats such as financial deductions not large enough, but the public sector was also unwilling to use them because they could backfire in the long term. Warnings and legal action were not effective threats in practice because the local councils would usually be reluctant to use them. In contrast, the threat in non-PFI schools of breaking out of contracts appeared to be more effective in influencing contractors' behaviour. This research demonstrates that although legal action is included in contracts to deter poor performance, the option of break-out from the contract and losing business is a more effective threat than the threats in the thirty-year long PFI contracts. Such threats in PFI contracts need to be sufficient to hurt the profitability of the contractor and credible, so that there is no way that the contractor can work around the contract to avoid being affected significantly by the threats. It is not possible for a contractor to reduce the impact if a school chooses to terminate a contract, which is why break-out clauses and shorter contracts are more effective threats in practice. Therefore,

the evidence implies that, to be credible, threats need be designed in such a way that the public sector is willing to use them. Any threat incorporated in operational contracts should be evaluated as to whether it can have a negative impact on the public sector.

The long-term relationship that the public sector relied on to receive good quality service brought only some improvement in negotiations and limited genuine challenge to opportunistic behaviour. Poor relations can be a threat to contractors but can also act as a counter threat by contractors to PFI schools, who may suffer receiving poor services or avoid new requests. In these circumstances they can do nothing to redress the situation because they have no access to the market, whilst the PFI contractor continues to receive payments.

There are some factors that will affect the outcomes of services, regardless of the form of procurement. How well the contract is managed depends on the staff employed in the schools and in the local council. Effective staff had in-depth knowledge of the PFI contract and were able to challenge PFI contractors successfully without significantly impairing the working relationship. Council staff who were more experienced with PFI contracting had more knowledge of the details of the PFI contract and how contractual mechanisms could be applied to challenge opportunistic behaviour. Therefore, there will always be some variation caused by staff with different skill sets and experience, regardless of the type of school. This implies that there needs to be careful transmission of the knowledge and skills involved in managing a PFI contract when council and school staff change over the course of a thirty-year contract. This would ensure less asymmetry of information and maintain knowledge of the best ways to use contractual mechanisms to reduce opportunistic behaviour. There is training and knowledge sharing already in place through institutions such as the Institute of School Business Leadership and the Crescent Purchasing Consortium. Effective school procurement policy should seek to support the knowledge and skills of the staff managing PFI contracts.

In this research, examination of the external environment has demonstrated how changes in central and local government policy, demographics and the economy have important impacts on all the schools' success in procurement. Given that schools are not in control of these factors, this suggests that policy making needs to take into account the impact these factors could have when forming policy on funding, contract design and the procurement process. The funding per pupil was a problem for PFI contracts, where their unitary payments stayed the same regardless of the changes in pupil population. When pupil population fell for some PFI schools,

they received less funding from the government. This created problems in their financing, as there was less money to use in an inflexible contract. This was not a problem in non-PFI schools because they could readjust expenditure to new circumstances. Central government needs to consider how their funding impacts school procurement with fluctuating populations and determine appropriate criteria for funding schools, where their costs remain constant.

It could be argued that soft services should be produced in-house because of the mixed outcomes in PFI contracts, and this has become an increasingly common trend in local government (APSE, 2019). The data collected in this research suggests this is may not be true in all cases for soft services in PFI contracts. Experiences from non-PFI schools showed mixed results when cleaning and catering were produced in-house with results as reliable in producing good quality services as from outsourced contractors. The research does not indicate that failure in PFI contracts should automatically mean that soft services should be produced in-house. Rather, it would be better for schools to be given the freedom and information to make decisions on whether to outsource or to produce in-house based on their own unique circumstances.

The analysis of the external factors influencing soft service delivery demonstrated how unique the circumstances of individual schools could be, regardless of whether they were PFI or non-PFI schools. Factors such as labour market conditions, whether the school was in an urban or rural area, funding and support from central and local government impacted the resources schools had and the options that were available to them. Schools need the flexibility in procurement to adapt to their circumstances. Interviewees from both PFI and non-PFI schools said that lack of options to change their procurement approach could hurt them in a changing situation. This research agrees with the UK government that the experience the public sector had with PFI contracts means there is still reason to use public-private partnerships generally (Hammond, 2018). Evidence from non-PFI schools showed that outsourcing could be a success in the right circumstances, namely, where there is good governance with credible threats, a competitive tendering process, good knowledge of the contract and regular monitoring of services to reduce information asymmetry. Therefore public-private partnerships should be one of a number of options for consideration in school procurement.

The research shows that governance matters in determining outcomes, regardless of the form of procurement. This research has demonstrated that no form of procurement guarantees a good

outcome in hard and soft services. Good and bad results in services could occur in PFI and non-PFI schools, whether they were outsourced or produced in-house. The more important issue is the access to alternative suppliers, as satisfaction with services generally improved in schools that had more access to the market. Relational mechanisms could not be relied upon to achieve value-for-money because they could not act as a substitute for contractual mechanisms designed to that end. There was no example where the PFI contractor and public sector put the contract to one side and negotiated new terms that were mutually beneficial. Ultimately, changes in the contract mechanisms need to take place to significantly improve value-for-money in hard and soft services.

10.5. Reflections for further study

Given the conclusions drawn from the dataset in this research, there are a number of areas which would merit further study. First, there could be more comparative analysis of PFI and non-PFI contracts in different sectors of infrastructure. The nature of the product matters as was demonstrated with the difference in experiences with hard and soft services in PFI contracts. There could be differences in the level of success in countering opportunistic behaviour in other sectors if the nature of the product is different. For example, sectors such as waste management would not need soft services included in the operational period of the contract and therefore might achieve better value-for-money. It could be easier to write a more complete contract for such a sector and clients might be more likely to achieve their goals in this sector. Hospitals, on the other hand, are more like schools in requiring soft services, and therefore may have similar experiences to schools in a PFI contract, and similar undesirable outcomes.

Given that incompleteness of contracts is a major problem in infrastructure projects, it would be valuable to examine how to design contracts to be more complete. This could involve determining what would be the right duration of a contract so the incompleteness does not become unmanageable. Infrastructure projects are long term and have high capital costs and therefore contracts designed to operate a building cannot be too short, as the private sector would then lack the incentive to invest. However, on the basis of the evidence in this research, there could be implications for understanding the optimum duration of contracts for hard and soft services. A further issue for study is how lifecycle costs should be included in any

infrastructure contract. Because infrastructure projects are so long term, they require maintenance over many years. However, lifecycle costs in PFI contracts have proved very difficult to quantify and manage for clients. If there are examples of successfully using a contractor to manage the lifecycle in a cost-effective manner, there could be lessons learned regarding the best ways to do so, in contrast to the PFI contract.

Comparisons between the different types of schools demonstrated that some forms of governance were better than others, from the point-of-view of managing contractors. The UK government has chosen to stop the use of PFI contracts and use other forms of public-private partnerships. Therefore, there could more comparative analysis of PFI contracts with other types of public-private partnerships, to understand what the most effective forms of governance are. The UK PFI experience could be contrasted with different forms of procurement internationally, to understand what kind of governance works well in nationalised, PPP and privatised industries. Another area that could be examined is which threats in contracts are credible and work in practice to stop opportunism from contractors. In very long-term contracts, it was hard to make threats credible when there was no option to choose an alternative supplier. Warnings and legal action need to be designed and implemented in a way that the public sector is willing to use them. If there are any examples of public-private partnerships where financial deductions, warnings and legal action have been implemented well, these should be examined.

As asymmetric information was a significant issue in operational contracts in both PFI and non-PFI schools, there should be consideration of how schools can reduce the problem. There was one innovative approach discussed in an example where mobile phone technology was used to monitor caterers, which led to higher and more consistent standards. There could be more examples where monitoring takes place effectively and could be shared as best practice in contract management. Given that the evidence in this research showed that monitoring and auditing were very effective tools in managing contractors in all types of schools, these may be worth considering further. This may be particularly relevant in managing opportunistic behaviour rather than financial deductions, warnings and legal action in long-term contracts, especially if public sector staff are concerned with creating relationship problems.

Reflecting back on the study, there could be improvements made to the sampling. Although the interview techniques allowed for deeper analysis of the workings of operational contracts,

the case study approach meant the size of the sample for PFI and non-PFI schools was small and therefore it is hard to generalise conclusions from the data set. Ideally, a larger sample of PFI schools and non-PFI schools would be interviewed. Another limitation of the study is that it would have been better to have data on prices paid for soft services and small repairs for both PFI and non-PFI schools. A comparison of price data between the two groups would have provided more evidence of whether PFI schools were actually paying higher prices for cleaning, catering and small repairs and the extent of opportunistic behaviour from the PFI contractor. Also, it would have provided evidence of whether non-PFI schools always paid better prices, which all non-PFI school staff believed. Data on prices paid and comparisons across different groups would have provided some objective evidence of whether the interviewees' judgement of their negotiations was accurate.

10.6. Conclusion

Britain's infrastructure procurement strategy needs to evolve from the experiment of using PFI contracts. The UK government officially put an end to the use of the procurement method in 2018, because it had failed to deliver for the public sector in many industries. There is a need to learn from the mistakes of PFI contracting because it was a very costly approach which will have consequences for public sector finances over decades. The experience of using PFI contracts also shows that we need to learn how to incentivise private sector contractors in long-term infrastructure projects.

Procurement strategies need to provide schools with the flexibility to manage their budgets. Their environment changes in ways that require them to adapt. The right contract design and governance structure can embolden schools as clients if they are allowed to change the way they want to spend and produce. When determining the contract design for soft services, the nature of the product ought to be taken into account. The fact that the production process is people orientated is significant in managing soft services contracts. Therefore, there will always be a level of subjectivity in agreeing on outcomes and a need to build understanding about what is important to customers over time. Local authorities play an important role in managing contracts for schools and, in particular, in reducing the problem of asymmetric information and relationship management. This research suggests that funding of these activities is important in order to support schools. This thesis can contribute to best practice in

hard and soft service procurement. It has suggested ideas for contract design and managing services in an operational contract. It is hoped that this can be part of a body of research leading to a more successful infrastructure procurement strategy in the United Kingdom.

Appendix 1: Interviewees for the case studies

1-1. List of interviewees involved in the procurement process of PFI schools

1) Contracts Officer at an English county council
   Interviewed: 24th March 2016

2) School Business Manager at a secondary school in England
   Interviewed: 11th May 2016

3) Education Support Services Manager at a Scottish council
   Interviewed: 28th October 2016

4) Headteacher of a primary school in Wales
   Interviewed: 29th November 2016

5) Headteacher of a primary school in England
   Interviewed: 11th May 2016

6) Headteacher of an infant school in England
   Interviewed: 21st July 2016

7) Headteacher and Finance Officer at a Special Educational Needs secondary school in England
   Interviewed: 31st October 2016

8) Headteacher of a secondary school in England
   Interviewed: 22nd November 2016

9) School Business Manager at a Special Educations Needs primary and secondary school
   Interviewed: 9th October 2018

10) Director of Procurement at a secondary school in England
    Interviewed: 4th October 2019

1-2. List of interviewees involved in the procurement process of non-PFI schools

1) Headteacher of a primary community school in England
   Interviewed: 17th June 2016

2) Headteacher at a primary faith school in England
   Interviewed: 28th September 2017

3) School Business Manager at primary community school in England
   Interviewed: 1st November 2017

4) School Business Manager of a secondary school academy in England
   Interviewed: 14th November 2017

5) School Business Manager at a primary community school in England
   Interviewed: 15th November 2017

6) School Business Manager at a primary community school in England
   Interviewed: 26th January 2018

7) Procurement and Commercial Director at a further education college in England
   Interviewed: 29th January 2018

8) School Business Manager at a secondary school academy in England
   Interviewed: 8th February 2018

9) Executive Director of Operations at an academy trust in England
   Interviewed: 15th February 2018

10) Premises Manager at a secondary faith school
    Interviewed: 3rd April 2018

11) School Business Manager at a primary school academy
    Interviewed: 9th April 2018

12) School Business Manager at a primary faith school
    Interviewed: 17th April 2018

13) Headteacher at a community primary school in England
    Interviewed: 25th September 2018

14) School Governor of a primary faith school
    Interviewed: 20th November 2018

15) School Business Manager at a secondary community school
    Interviewed: 31st July 2018

16) Commercial Manager in an English council
    Interviewed: 8th November 2019

Appendix 2: Interview Schedules

Interview schedule for PFI contract procurement teams

What was the job title, background and experience of the interviewee?

What were their responsibilities in managing services across the school?

Contract design

What levers in the contract do you have in place to help you to negotiate in uncertain circumstances for catering, cleaning, small repairs and large building projects?

What governance structure do you have in place to manage negotiations?

How do the following levers help you to negotiate during the operational period of the PFI contract?

1. Auditing from the local council
2. Contractual clauses stating the contractors' obligations
3. Benchmarking/ market testing
4. Penalties
5. Warnings
6. Other

Relationship

Has the relationship between your team and the contractor changed over the course of the operational period? Has there been much turnover in staff?

Have there been disputes/delays on things that have been difficult to agree on? How have they been resolved?

What is the fall-back position if neither of you can reach an agreement?

What role does the council play in supporting you in your negotiations with the contractor?

Outcomes:

Are there any examples of when negotiating went particularly well/badly?

How satisfied were you with the prices paid for services, quality of services and the amount of time it took to resolve the issue?

Interview schedule for non-PFI contract procurement teams

What was the job title, background and experience of the interviewee and what were their responsibilities in managing services across the school?

What type of school was it? For example, community or faith school?

Contract design

Are cleaning and catering services in-house or outsourced?

What is the length of the contracts you have with cleaning, catering and security contractors?

What governance structure do you have in place to manage negotiations?

What levers in the contract do you have in place to help you to negotiate in uncertain circumstances for catering, cleaning, small repairs and large building projects?

How helpful to you are levers, such as penalties and break-out clauses, in negotiations during the operational period of the cleaning/catering/security contract?

How are small repairs managed? Are you restricted by the local council or religious authority over the suppliers you can approach?

Relationship

Has the relationship between your team and the contractors/in-house staff for cleaning/catering/security changed over the course of the operational period? Is there much turnover of staff in these teams?

Have there been disputes/delays on things that have been difficult to agree on? How have they been resolved?

What is the fall-back position if neither of you can reach an agreement?

Outcomes:

How satisfied are you with prices paid for services, the quality of the services and the amount of time it took to resolve problems with services?

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