A study of the operationalization of management controls in United Kingdom Private Finance Initiative contracts.

Abstract

Utilizing evidence from a United Kingdom (UK) road case study Private Finance Initiative (PFI) project, this paper considers how the UK central government's infrastructure strategy is operationalized through accounting-based performance measures and incentive systems, and articulates how the adoption of such systems is moderated by trust practices. The findings indicate that initial government policy objectives, translated as performance indicators in the case study, failed to offer adequate incentives for contractors and created tensions. However, controls were later developed through inter-party trust practices for managing performance and relational risk. These findings have important implications for PFI policy and practice globally, including that negotiation can: (i) lead to pragmatic controls being introduced to foster cooperation and trust-building; and (ii) provide opportunities for adapting the monitoring and incentive mechanisms. The study also contributes to previous literature where PFI control systems were largely regarded as inadequate for dealing with unforeseen conflicts between the parties.

Keywords: Private Finance Initiative (PFI), Public Private Partnerships (PPPs), Accounting, Management controls, Performance measurement, Incentives, Trust.

INTRODUCTION

The recent financial crisis encouraged governments globally to introduce policies designed to streamline the public sector and cut public spending (Bracci *et al.* 2015; van der Kolk *et al.* 2015; Heald and Steel 2017). Indeed, similar initiatives ranging from outright sale (privatization) to mixed models of public service delivery can be traced back to the 1980s (Warner and Bel 2008; Bel *et al.* 2014; Alonso *et al.* 2015). However, it is contended that mixed or hybrid models of public service delivery have universally come more to the fore recently because privatization is no longer politically viable for certain public services or because neither the pure public nor the pure private route has emerged as the natural choice (Broadbent and Laughlin 2004; Warner and Bel 2008; Bel *et al*. 2014; Florio 2014). Perhaps the most well-known variant of a mixed model for public service delivery is Public Private Partnerships (PPPs) (Hammami *et al.* 2006; Sclar 2015). In Europe, there have been more than 1,000 planned and funded PPP-based (infrastructure) projects, with their capital value of approximately US$635 billion representing around half of total PPPs world-wide (Public Works Financing 2011; Lamman *et al.* 2013). Internationally, as a single jurisdiction, the United Kingdom (UK) remains one of the largest PPP actors in terms of both the number and capital value of projects (KPMG 2010; European PPP Expertise Centre 2013).

Ideologically, involving the private sector in public infrastructure and service delivery was driven by a belief in the superiority of the sector's management approaches. This phenomenon, labelled New Public Management (NPM) emphasises the development of competition (e.g. quasi markets) for public service delivery and the use of extensive control regimes (performance measurement and incentives) by the procuring authority to incentivize the service-delivering organizations to achieve targets set by the former (Broadbent and Laughlin 2004; Diefenbach 2009; Florio 2014; Alonso *et al.* 2015). In this way, NPM limits the state to a supervisory (principal) role vis-à-vis private infrastructure and service delivering

organizations (agent) (Sclar 2015). While a belief in NPM rationalities could be one reason for governments to introduce PPPs (Broadbent and Laughlin 2005), other factors could be politically-motivated condemnation of public-sector competence and/or constrained public funds (English and Guthrie 2003; Hellowell 2010; Sclar 2015). Indeed, PPPs have spawned from a mixture of ideological, financial and political pressures, with the policy being 'clothed in different garments' (Greenway *et al.* 2004).

Regardless of the motivations, PPPs lock the state into long-term contracts, with a fundamental issue facing the principal (state) being mission misalignment since the private partner's primary interest is capital preservation and investment returns (Sclar 2001). Moreover, PPP contracts possess a contextual and dynamic nature which could require change management and contract re-negotiations over their operational life cycle (Broadbent *et al*. 2003; English and Baxter 2010). Furthermore, as the contracts are written *a priori*, they are invariably imperfect in the sense that it is impossible to incorporate adequate clauses which address all potential operational and relational contingencies (Sclar 2015). Thus, compromise and negotiation may be essential for contracts to function during the operational phase. Given the challenges facing the state in governing PPP contracts, by focusing on a single road case study PFI project (hereafter 'RCSP'), this paper seeks to articulate how the micro (project) level accounting-based controls and trust practices are enacted for governing the operations and inter-party relationships over the operational life cycle. Although, while it is acknowledged that it is difficult to determine the extent to which the findings from this RCSP can be generalized, Nisar (2007) argues that case study research enables an evaluation of key findings and emerging ideas as it provides an opportunity for the intensive analysis of specific details often overlooked by other methods (see also Ahrens and Chapman 2006; Yin 2012). Thus, these research findings offer substantial empirical evidence which aid our understanding of the management and governance of PPP contracts, an area where there has

been little scholarly inquiry (Steijn *et al.* 2011; Andon 2012; Chung 2016; Caperchione *et al.* 2017).

In terms of structure, the next section provides the theoretical underpinnings for the empirical analysis. Then, the background to the RCSP, including the research methods, is described. The subsequent two sections present the empirical findings, with the final section discussing the paper's theoretical contributions, policy implications and avenues for further research.

THEORETICAL UNDERPINNINGS

In the UK, the term PFI[a] is commonly used to refer to a PPP, with the transport sector of roads being the lead PFI adopter when it was officially launched in 1992 (Edwards *et al.* 2004**)**. However, little attention has been devoted to the systematic evaluation of operational roads PFI projects (Shaoul *et al.* 2007). Also, internationally, as the transport sector of roads is the highest recipient of private finance (Public Works Financing 2011; Yehoue 2013), this is an important sector to be researched. At the time when this research was conducted, there were 12 operational PFI contracts under the UK Highways Agency (HA)[b], with a combined capital value of almost £2.5 billion (HA 2015).

NPM-inspired policies (e.g. PFI) have contributed to a more commercial-style approach to public-sector governance with, for example, increased emphasis on value-for-money (VFM) (Coulson 2008; Demirag and Khadaroo 2008). This has impacted upon the structures and processes of accounting-based management controls with, *inter alia*, greater use of performance monitoring and incentives regimes (henceforth MCS[c]) to enable government to exercise control over service-delivery organizations and employees (Courpasson 2000; Diefenbach 2009).

Accounting technologies such as MCS serve as means for operationalizing policy objectives at the local level (Appuhami *et al*. 2011; Barretta and Busco 2011; Khadaroo 2014; van der Kolk *et al.* 2015; Walker 2016). For this reason, as evidenced by this special issue, there is a desire to consider the linkages between accounting and public administration research in order to (better) understand how accounting and MCS are intertwined in the operationalization of public policies, together with the consequences for the public (taxpayers) (Modell *et al*. 2007; Kurunmäki and Miller 2011). Marques *et al.* (2011) note that within complex public-sector network organizational forms, such as PFIs, the operational issues are delegated to the private contractors, with the government department having a coordinating role aimed at stimulating cooperation within the network and ensuring partners' contributions. As such, MCS through *inscription* and *calculations* (Robson 1992; Walker 2016) could enable the procuring department to 'govern' a PFI project by providing mechanisms for monitoring the contractors' performance and incentivizing them to operate in accordance with the project's goals (Dekker 2004; Marques *et al*. 2011).

While MCS could provide guidance for service providers through appropriate feedback loops (Busco *et al*. 2006), influencing (shaping) the actions of service providers is achieved mainly through *financial* incentives (Compagni and Tediosi 2012). Indeed, since PFI's adoption, the policy narrative of the successive UK governments has emphasized performance-based unitary payments, with the discourse placing performance-related controls and incentives at the heart of PFI contracting for risk-management and achieving VFM (Her Majesty's Treasury (HMT) 2003, 2007, 2008, 2012). However, little is known about the operational (controls and relationship) dynamics of this major public policy domain (English and Baxter 2010; Toms *et al*. 2011; Andon 2012; Demirag *et al.* 2012). Consequently, this is an important research agenda as the implementation of MCS in such situations is complex, with no simple solutions for the operational and relational issues (Brignall and Modell 2000;

Bevan and Hood 2006; Speklé and Verbeeten 2014). Indeed, it is contended that NPM-driven contemporary performance-measurement and incentive regimes can bring about judgement biases and perceptions of unfairness or subjectivity if they lack clarity with respect to the performance measures and/or the relative weight attached to awarding or sanctioning decision making is contested (Diefenbach 2009; Compagni and Tediosi 2012; Franco-Santos *et al.* 2012; Speklé and Verbeeten 2014). Thus, the primary aim of this paper is to articulate how MCS are operationalized in a RCSP and explore their impact on contractors' performance.

Given the long-term and complex nature of PFIs, the embedded MCS, which are usually structured *a priori*, could be subject to change and (re)shaping as a result of interactions between the localized actors (English and Baxter 2010). Therefore, within the setting of the RCSP, the interactions between MCS, the human actors whose behavior the MCS tend to mediate (Kurunmäki and Miller 2011) and 'trust practices' are investigated, including the trust practices for developing MCS and assigning them properties of trustworthiness (Mahama and Chua 2016; Minaar *et al.* 2016). In this context, trust practices represent the routines involving inter-party collaboration and the expression of sentiments or aspirations to address MCS-related tensions (Mahama and Chua 2016; Minaar *et al.* 2016). Thus, in contrast to most accounting research on accounting-trust relationships where trust is conceptualized as a method of (informal) control, with the focus being on the implications of its presence or absence on MCS (e.g. Das and Teng 1998, 2001; Langfield-Smith and Smith 2003; Free 2008; Velez *et al.* 2008), this research seeks to understand 'trust in the doing' (i.e. the routines, understandings and knowledge that become mobilized for developing the contractual and relational governance within the context of this case study) (Mahama and Chua 2016). Accordingly, a further aim of this paper is to analyze the trust practices or trust-repertoires (Mahama and Chua 2016) that are enacted ('trust in the doing') between the government and

private-sector partners in the RCSP to address MCS conflicts in order to achieve the (contracted) project objectives.

THE CASE STUDY

Context

The UK transport sector has been chosen as the broader case study site given the significance of PFI spend in this area (Demirag *et al*. 2010), with our primary empirical site of investigation being a HA operational road PFI contract. Also, given some of the major UK PFI projects that have failed and required government intervention are in the transport sector (Shaoul *et al.* 2006; National Audit Office (NAO) 2009; Jupe 2011), it is fitting to analyze an operational road PFI contract. Moreover, since the UK has remained the largest actor in the international PFI market with several European countries borrowing from UK's PFI policies and lessons (Gerrard 2010), drawing academic, practical and policy lessons from a UK-based case study is potentially productive as the findings could lead to future comparative research (Steijn *et al.* 2011; Chung 2016).

Ross and Yan (2015) suggest that one reason why PFI is prevalent in the roads sector is that there is relatively less need for large design changes. Moreover, in a UK context, Shaoul *et al.* (2006) contend that roads PFI have a stronger financial appeal than other sectors because of government guarantees for the HA's PFI obligations. Nevertheless, UK policy rationalities for roads PFIs and their governance mechanisms have changed over time, with the government's primary objectives shifting from developing a private sector roads operating industry through shadow toll-based contracts to obtaining solutions to congestion, commuter safety and environmental concerns (Edwards *et al.* 2004; Shaoul *et al.* 2007). In particular, for strategic roads, reducing congestion and improving road safety have been key policy objectives of successive UK governments (Department for Transport 2000a, b, 2004). Also,

MCS in UK roads PFIs, particularly the (payment-based) incentive regimes, have moved to more stringent performance-related criteria (Shaoul *et al.* 2006, 2007) underpinned by an emerging government rationality of transferring and managing risks (Burke and Demirag 2015).

This RCSP captures one of the largest UK roads PFIs and was signed soon after the advent of financial crisis, thus making it a fitting case for analyzing how strategic (and perhaps capital-intensive) objectives for the roads sector (i.e. reducing congestion and improving road safety) are operationalized through NPM-based control regimes that predominantly involve performance monitoring and incentive regimes. Additionally, as per official reports[d], it is claimed that this case study involves the most elaborate control regime compared with preceding and subsequent UK roads PFIs.

Background

The RCSP contract was awarded for 30 years by the Secretary of State for Transport and the HA has executive responsibility for its management. When this research was conducted the RCSP had entered its operational phase. The rationale for the RCSP was that the underlying road (motorway) had been facing high levels of congestion which created the potential for serious accidents and unreliable journey times (RCSP Business Case and publicly available official reports[e]):

> *The [RCSP] is one of the busiest motorways in Europe with some sections carrying up to 200,000 vehicles per day... the level of congestion leads to queuing which increases the risk of accidents.* (RCSP Business Case)

In 2000 the UK government commissioned a consortium of consultants to produce a long-term sustainable strategy for the RCSP. The consultants reported their preferred strategy in 2002, which was to widen most of the three-lane sections on the motorway to four lanes.

While an alternative option, to use the motorway hard shoulder during peak hours, was also suggested, the government preferred the widening solution as slower speeds on hard shoulders was not considered a long-term solution to congestion. The HA approved widening schemes for five sections of the motorway and, after undertaking cost-benefit and VFM assessments, two of the sections were prioritized for widening under a single PFI contract[f]. Under the terms of the RCSP contract, a single private sector contractor (hereafter 'Special Purpose Vehicle' (SPV)) was assigned responsibility for widening (construction) two sections of the motorway (approximately 40 miles), together with operations and maintenance over the 30-year life of the contract for the entire road (approximately 242 miles, which also included certain bridges and tunnels).

As unitary payments during the construction phase are availability-based, the HA achieves VFM if the widening schemes are completed on-time and to-budget (HMT 2003). The operationalization of the project objectives (i.e. to reduce congestion and improve road safety) involves the HA mobilizing a complex arrangement of MCS in order to incentivize the private sector to meet a series of performance measures. After outlining the research methods, these issues are discussed further below.

Research methods

Case studies are supported when the empirical objective is to analyze the day-to-day functioning of accounting in contemporary organizations (Humphrey and Scapens 1996). Because of their contextual and dynamic nature, Andon (2012) contends that the micro operations of PFI contracts should be researched using case study methodology. This study employs a qualitative case study methodology (Yin 2012, 2017), combining field-based interviews with archival data. Indeed, Yin (2012) claims that analytical generalizations can be proposed even through a single case study if the underlying theory can establish relationships

among the concepts analyzed that are based on logic and are applicable to other situations outside the case study in hand.

Initially, data was drawn from: (i) the RCSP Contract and the Business Case, which were obtained under a Freedom of Information Act (2000) request to the HA[g]; (ii) the HA's online policy information on PFI roads procurement; (iii) HMT's and NAO's guidance on PFI payment mechanisms, contract and inter-party relations management; and (iv) other related publicly-available reports and articles (see Table A). Their content was analyzed to understand the contract management, particularly the control regimes, within the RCSP operations and maintenance stages.

The main subject of analysis within the RCSP (operations and maintenance) contract was 'Schedule 18 – Contract and Performance Management'. This provides a detailed framework of the control regimes deployable during the operations and maintenance stages of the RCSP including: (i) a breakdown of the project objectives into key performance indicators (KPIs); (ii) performance monitoring, including performance review meetings and incentives mechanisms; and (iii) mechanisms for dispute resolutions.

Insert Table A here

After gaining an initial conceptualization of the issues, senior individuals at the HA and SPV were contacted to seek their personal perceptions on the research questions. Eisenhardt and Graebner (2007, p. 128) posit that interviews can be improved by using an array of knowledgeable interviewees who interpret the research questions with contrasting points of view, with interviews being considered the primary qualitative method (Easterby-Smith *et al.* 2009). Bryman and Bell (2011) contend that in a semi-structured interview, while the interviewer will try to cover specific topics, there is a degree of flexibility. Questions may not

necessarily be asked in the sequence initially anticipated and interesting areas that emerge in the interview may be explored, as was the case in this research.

Interviewees in senior positions can be expected to have a broader perspective of the issues sought by the researcher (Spence and Rinaldi 2014). Also, since interviews involve conversations and interactions with the actors in the empirical field, this allows the researchers to learn about the lived experiences of the actors (Qu and Dumay 2011). The meetings with the RCSP representatives complemented the initial document analysis, facilitating an understanding of the perceptions and experiences of the interviewees regarding the control and trust practices, which could not be achieved from the document analysis alone. During the interviews, some additional RCSP-related documents were supplied by the interviewees (and subsequently analyzed).

The interview questions were shaped by the literature review and themes that emerged from the document analysis, with three main areas emerging: firstly, to open the conversation, on the use of PFI for procuring roads together with the effectiveness of the control regimes within roads PFI contracts; secondly, on the operationalization and consequences (i.e. effectiveness or tensions) of the MCS within the RCSP contract for achieving the primary objectives of reducing congestion and improving road safety during the operations and maintenance stages; and thirdly, on the use of trust practices in achieving the project objectives.

Subsequently, while the existing data was being analyzed, more specific (including confidential) RCSP-related documents were sought from the respondents via email. As some of these documents were part of newly developed strategic management tools emerging from trust practices, they facilitated a more in-depth understanding of how certain key elements of MCS operated and were being (re)shaped by trust practices. Thus, the field-based interviews and supplementary documents enabled an understanding of ‘trust in the doing’ as well as the

MCS-related concerns of both the public and private parties. The coding of the data was mainly performed using qualitative data analysis software QSR-NVivo-9.2.

In the first round of meetings with the HA and SPV, four (semi-structured) interviews were conducted, two at the HA and two at the SPV (with each lasting approximately one hour). In both organizations, the interviewees included a senior official responsible for managing the RCSP contract and official from the accounts or finance staff who dealt with the payment mechanisms. In the HA, the interviewees were the RCSP's contract manager (hereafter Contract Manager-HA) and two payment mechanism officials responsible for calculating SPV payments (hereafter Paymech Official-HA). At the SPV, the CEO (hereafter CEO-SPV) and his finance director (hereafter Finance Director-SPV) were interviewed. The interviews were audio recorded with the permission of the interviewees and later transcribed. In order to validate the interpretation of the data, copies of the transcripts were sent to the interviewees; this enabled two follow-up interviews to be conducted by telephone, with each lasting approximately 45 minutes. Also, one of the authors visited the RCSP on more than one occasion to observe how certain safety and congestion-related performance issues corresponded with the themes emerging from the document analysis and interviews.

Furthermore, the results were refined through lengthy and critical discussions among the authors, together with reviews from research colleagues (Miles and Huberman 1994; Zahir-ul-Hassan *et al.* 2016). Such reiterative processes resulted in a belief that a saturation of themes had been achieved and further data or reiterations were unlikely to result in new themes (Power and Gendron 2015; Malsch and Salterio 2016). Overall, the data collection and reiteration processes took place between 2012 and early 2017. Having outlined the background to the RCSP and the research methods employed, the next two sections present the empirical analysis.

THE USE OF MCS FOR OPERATIONALIZING GOVERNMENT'S OBJECTIVES IN THE RCSP

Background

As a policy guideline, an underlying principle for setting controls in PFI contracts is for the procuring authorities to clearly specify project objectives in terms of outputs, with the contractor being incentivized to deliver against those objectives (HMT 2007). It therefore follows that there should be formal outcome controls that specify project objectives, monitor the contractor's performance against the performance targets and link incentives for the consortium to the attainment of the performance targets (Dekker 2004; Robinson and Scott 2009; Marques *et al.* 2011).

The outcome controls established within the RCSP (operations and maintenance) contract comprise three fundamental elements (Figure A): (i) performance indicators (PIs); (ii) performance monitoring; and (iii) performance management (incentives regime). The performance monitoring and reporting, together with the performance management regimes in the RCSP contract (Figure A), particularly with respect to the project objectives of reducing congestion and improving road safety, are now discussed.

Insert Figure A here

Performance monitoring and reporting in the RCSP

PFI policy guidance stresses that the procuring authorities should establish performance monitoring and reporting regimes in contracts as these are instrumental for managing the contract and payments (HMT 2007). This is illustrated in Figure A by the dotted arrows that connect the performance monitoring and reporting regimes with the incentive regimes. As shown in Figure A, the performance monitoring and reporting regime in the RCSP is

informed by PIs that are established from the project objectives. The RCSP includes project objectives and KPIs[h] for reducing congestion and improving road safety (Figure B[i]).

The development of KPIs (Figure B) represents their long-term strategic nature, requiring investment for delivering certain safety and congestion improvement schemes and programs over the 30-year life of the contract. From the data analysis, 'lane-availability' was identified as the most significant (short-term or day-to-day) KPI for reducing congestion as it incentivizes the SPV to avoid lane closure, lane narrowing or temporary speed limits for carrying out life-cycle works on the project road during the day time (Figure A).

The RCSP contract provides the HA with the right to inspect or audit the SPV's performance against the KPIs, while at the same time requiring the SPV to cooperate with the HA in conducting audits or inspections. In addition, it establishes procedures for self-reporting by the SPV regarding performance failures, which is an important feature of performance monitoring in the RCSP (Figure A).

Insert Figure B here

The key reports that the SPV produces are the monthly, quarterly and annual reports (Figure A). Schedule-18 of the RCSP contract establishes the monthly report as the major document for monitoring the SPV's performance. This contains performance information against 250-300 targets, with the performance achieved against each being color-coded. Moreover, there are performance dashboards included in monthly reports which provide graphical and bulleted information about performance against KPIs for all project objectives, on a month-by-month rolling basis, together with a three-month projection. For example, relating to safety, the dashboards provide information about numbers and trends in accidents with fatalities and serious injuries. The monthly reports are reviewed jointly by the HA and

SPV at a Monthly Management Review meeting (Figure A). The HA also uses a scorecard approach for measuring the SPV's performance annually, called 'Proactive Management Review' (PMR). A PMR panel measures the SPV's performance against the broader project objectives and awards a score which is linked to financial rewards (i.e. bonus payments) based on the panel's judgment about performance (Figure A).

In summary, performance monitoring in the RCSP was enabled by accounting as a technology of inscription and calculation. Audits, ad hoc HA inspections, periodic performance reports submitted by the SPV and Monthly Management Review meetings, all relied on accounting numbers as a means for the HA to monitor a distant domain of affairs.

However, what appears to be a convincing performance measurement system with expected positive outcomes, such as higher performance and motivation, might instigate discord and setbacks for the partnering organization if the system is applied over-zealously (Seal and Vincent-Jones 1997; Meer-Kooistra and Vosselman 2000) and/or where the performance measures do not produce the intended goals (Baker 2002). This research identifies such issues with performance monitoring in the RCSP, and these are discussed later in the paper;

It was suggested previously that NPM has contributed to the growing use of performance-based payments as incentive mechanisms by governments (Compagni and Tediosi 2012). Arguably, a partnering organization's motivation to cooperate in achieving the network's objectives could derive from 'material interest'[j], 'coercion or fear'[k]. Hence, (financial) incentives, linked to performance monitoring regimes, could motivate the private contractor to achieve the desired project goals (Marques *et al.* 2011). Sargiacomo (2008) argues that disciplinary mechanisms for shaping the conduct of the subjects should comprise both punishment and gratification as these can be deployed to 'align, allure and even seduce' the conduct of the subjects (p. 687). However, it is contended that proponents of NPM disregard

the (unintended and undesirable) performance consequences of incentive-based contracts as, from a theoretical perspective, such regimes only have a positive impact on performance if they are perceived as procedurally fair and provide positive feedback opportunities (Speklé and Verbeeten 2014).

Performance management (incentives) regime in the RCSP

The incentives in the RCSP for managing the SPV's performance against the project objectives are non-financial and financial, and include penalties and rewards (Figure A). The enforcement of these incentives during the operations and maintenance stages, together with their effectiveness in incentivizing the SPV to meet the performance targets of reducing congestion and improving road safety (Figure B), is now explored.

Non-financial incentives in the RCSP

Non-financial incentives in the RCSP are activated when there are performance failures by the SPV. The four non-financial incentives (Figure A) are presented in order of severity, and the classification of an incentive from 1 to 3 should make the SPV wary about more severe consequences if the related under performance is not rectified as per agreed modalities with the HA. Under the RCSP contract, the issue of a warning notice or performance-points[l] by the HA leads to increased performance monitoring at the expense of the SPV. In some older HA roads PFIs, performance points were only issued after warnings (Edwards *et al.* 2004). However, in this contract, performance points have been levied since the commencement of operations and maintenance services. Mechanisms for performance points are detailed in Schedule-18 of the contract which describes the performance areas that could cause the SPV to receive performance points, based on formulae specified within the same schedule. The NAO considers performance points an effective incentive for PFI contractors and assumes

that their implications would alert financiers' due diligence (NAO 1998). The accumulation of performance points creates additional costs for the SPV as it has to comply with additional monitoring requirements (at 500 points) or even lose the PMR-bonus (at 600 points). Moreover, if under performance or an obligation breach during the operations and maintenance stage is not rectified, and that leads to the accumulation of performance points beyond certain higher thresholds (3,500 points), the contract could be terminated.

With respect to improving safety and reducing congestion through improvement schemes and plans (Figure B), the SPV's failure to meet the targets can lead to performance points being levied:

> *... [I]n case of Safety Action Plan... it is a performance point incentive. So, they [sub-contractors] must deliver the Safety Action Plans to keep performance points down.... They do it on our behalf.* (CEO-SPV)

While the SPV was cautiously managing its performance points, it appeared that they differed with the HA regarding the underlying performance measures and the way those were being weighed and used for sanctioning. In this way, performance points were viewed as a source of inter-party tension:

> *... when you are trying to justify value-for-money, picking up performance points doesn't feel like value-for-money. So actually, that's been a tension right the way through. Some people say it is a good tension, I don't think it is a very good tension because you are not working as a collective, you are not working as a team, you are working as two sides.* (CEO-SPV)

Previous research indicates that the HA did not use performance points liberally in older roads PFIs (Edwards *et al.* 2004). However, in the RCSP their use against performance breaches was the norm. This suggests that the HA may have become more meticulous about using contractual MCS in later PFI contracts because certain major transport PFI projects had

previously failed on account of poor project governance, with the contractors in those projects being awarded later transport PFI projects (NAO 2010).

Subsequent to being sanctioned performance points, if the SPV still fails to rectify an underlying breach or under performance within the stipulated remedial period, the HA has the right to intervene (Figure A) and could direct the SPV to perform certain actions, undertake the necessary rectification actions on its own or engage others. The SPV has to bear the operational and administrative expenses incurred by the HA in taking such remedial actions. The HA also has a right to terminate the RCSP contract if there is a serious breach of contractual obligations such as abandoning operations, or performance points cross the 3,500-points threshold. However, termination must be evaluated in terms of costs and benefits against availability of alternative delivery mechanisms of the underlying services (NAO 2006). Thus, terminating the RCSP contract would not be a straightforward penalty for the HA to exercise, as alternative arrangements would need to be in place for continuing the delivery of the underlying road services.

While the non-financial incentives in the RCSP have financial consequences for the SPV, PFI policy places performance-based payment mechanisms at the heart of the contracts as a key risk allocation strategy (see 'Theoretical Underpinnings'). The payment mechanisms deployed in the RCSP (Figure A), and their effectiveness in shaping the conduct of the SPV towards achieving the objectives of improving road users' safety and reducing congestion, are now discussed.

Financial incentives in the RCSP

Unitary-payments in the RCSP, which are paid monthly to the SPV, comprise three elements: (i) base-service amount; (ii) performance adjustments; and (iii) other (non-performance) adjustments. Performance adjustments, which represent the financial incentives for the SPV,

have six elements (Figure A), of which three (lane availability, route performance and unplanned event management) are monthly adjustments related to the project objective of reducing congestion. However, route performance was not operationalized at the time of this research due to technical difficulties related to the equipment needed to capture the underlying data. The performance adjustment for road condition is also calculated on a monthly basis and is an incentive for the SPV to maintain the project road in safe and serviceable condition. The remaining two performance adjustments, safety performance and PMR bonus, are calculated annually.

Lane availability and road conditions are only deductions whereas unplanned event management can be either but with capped amounts. The Safety Performance Adjustment (SPA) can be an annual deduction or a bonus, but is capped at £1 million per year. The PMR bonus can range from £0.25-£0.75 million per year, subject to indexation, and is payable if the SPV obtains a score of 2 or higher on the PMR scorecard (Figure A). Since the RCSP's commencement until this research was conducted, no bonus was awarded to the SPV through the PMR scorecard. Unsurprisingly, this was a cause of frustration for the SPV. Consistent with Diefenbach (2009), Franco-Santos *et al.* (2012) and Speklé and Verbeeten (2014), incentive-oriented MCS can cause dissonance if they generate perceptions of unfairness and judgement bias. This could happen when the way performance measures are chosen and weighted for decision making regarding awarding and sanctioning is inconsistent with the overall network's goals. The SPV questioned whether the PMR scorecard fairly reflected their performance:

> *...if you look at the description under each one of these boxes they are quite subjective in their own right. So, you have got subjectivity on top of subjectivity. For example, the score this year was 1.7 out of 4.0 … that's like 4 out of 10. So, is the contract which you are seeing on the ground a 4 out of 10 contract? Clearly it is not. So, there is a lot of*

interpretation that needs to be put into this to make this what I would say, probably a reasonable statement of how good this contract is. So, there is work to be done. (CEO-SPV)

Having discussed the payment mechanisms in broad terms, the payment adjustments relating to the two primary project objectives of reducing congestion and improving road safety, together with whether they have achieved their goals by incentivizing the SPV to deliver against the KPIs (Figure B), are now considered.

Payment-based incentives for improving road users' safety

With respect to the objective of improving safety by reducing the number of serious accidents, the SPA was the only (financial) incentive operationalized through the payment mechanisms in the RCSP (Figure A). This adjustment is not specifically linked to the safety-related KPIs, but is allied to the overall outcome (i.e. trend in KSI^m accidents). Since the commencement of operations and maintenance services, the SPA has remained an annual deduction, effectively penalizing the SPV. However, it was observed that the deductions arose because the formula compared KSI data on the RCSP with that on certain comparator roads, using average KSI data for the preceding five years. The SPV had reservations about the way the SPA was consistently reducing the unitary payment:

…you can see here they took £4.0 million off me. I didn't do anything but because they got the formula wrong. So that's a disincentive. (CEO-SPV)

Moreover, in terms of the effectiveness of the SPA as an incentive for delivering safety-related action plans and improvement schemes (Figure B), it appeared that the regime was less enabling as it did not adequately incentivize the SPV because the measures to which it was linked were not totally controllable by the contractors (Franco-Santos *et al.* 2012; Speklé

and Verbeeten 2014). It was acknowledged by both parties that contractors only had a limited influence on controlling accidents:

> *I would far rather be incentivized for the things which I have influence over. So, I have influence over the way I manage the asset, the road surface, the bridges, the viaducts.... But the travelling public, I am not incentivized.* (CEO-SPV)

Since the SPV could not completely control accidents on the project road, the HA delimited the safety risk transferred to the SPV by capping the SPA.

While capping financial incentives could be a risk-management strategy for government (in order to avoid high risk premiums), it was, conversely, potentially dis-incentivizing the private sector to work towards long-term strategic objectives, such as delivering safety-related programs on the RCSP (Figure B):

> *If you look at the Safety Performance Adjustment, that is capped at a £1.0 million plus or minus each year. Then you think 'what investment do they have to make in order to make a difference?' Then, perhaps they are actually better off not spending that money.* (Contract Manager-HA)

The SPV concurred, suggesting that the SPA's capped value was a disincentive to deliver safety-related action plans and improvement schemes:

> *... if they were giving us £10 or £15 or £20 million each year then I think you could see a big difference.* (CEO-SPV)

The payment mechanisms, particularly whether the deductions for lane closures (Figures A and B) have been effective in incentivizing the SPV to achieve the project objective of reducing congestion, are now examined.

Payment-based incentives for reducing congestion

In relation to the project objective of reducing congestion, lane availability (Figure A) is the

most significant financial incentive within the RCSP, with penalty deductions that could amount to £5-£6 million per year. Unlike road-safety KPIs, the SPV was capable of influencing lane availability for planned works. This may explain why there was no cap on the deduction for the lane-availability adjustment, with the payment mechanism providing an incentive to the contractors to avoid daytime road works. This was done by the SPV wherever possible, with innovative methods being employed to prevent lane closure or implementing temporary speed limits:

> *On the [xyz] bridge there are some very big expansion joints.... We worked out that if we were going to repair those joints it would cost us something like a million pounds in closure charges. So, what we have done, is design some ramps which go over the top of the road surface... and what we need to do then is to do work from underneath. So, the incentivization for us is to use innovation to deliver that.* (CEO-SPV)

However, the payment mechanisms did not appear to incentivize the SPV to develop and implement congestion-easing schemes (Figure B) as such schemes require considerable investment which the payment mechanisms did not match. Moreover, similar to the observation about the safety improvement schemes, as certain congestion factors were considered uncontrollable by the contractors, therefore the payment mechanisms were not viewed as a motivation for the SPV to investment in congestion-easing schemes:

> *When it comes to looking at how you reduce congestion, I think again it is a very difficult issue because there are many reasons why traffic gets congested. The extent to which the PFI company can influence that is a matter of conjecture.... We have no control over traffic signals. Next door is the Highways Agency and they control all the big gantries; we don't. So you have to ask yourself to what extent you can do anything to reduce it* [congestion]. *We can't do a radio advert, a television advert, talk to the members of*

public, go on twitter or on face book. So, as you are a driver, I can't talk to you. So how am I going to affect congestion? (CEO-SPV)

Therefore, the payment mechanisms in the RCSP appear to incentivize the SPV to deliver outputs that are controllable, such as managing road works. In contrast, both the safety and congestion-related payment mechanisms failed to provide incentives for the SPV to deliver strategic solutions. The use of performance points was considered effective in incentivizing the SPV given their financial consequences, together with the ultimate sanction of termination. However, overall, the MCS as deployed in the RCSP was perceived as a dis-incentive because of the regime's tendency to penalize, rather than reward, the SPV. While the HA capped some of the payment-based incentives (e.g. SPA) in recognition of the contractor's inability to influence the risk factors underlying the achievement of the outcomes, this proved a dis-incentive with respect to delivering long-term congestion and safety-related improvement schemes. Thus, the performance management regimes within the RCSP appeared to be operating in a bureaucratic style (Meer-Kooistra and Vosselman, 2000) that lacked proper incentivization which, as such, limited their effectiveness. In such situations, consistent with Das and Teng (1998), the deployed MCS resulted in dissonance between the HA and the SPV (i.e. the contracting parties):

Do they believe that we will always act in their best interest? Do they believe that we always do the best? Do they believe that they are getting the best service? I feel that the answer to all that is 'no'.... So, I would say fundamentally this relationship will always be fragile. (CEO-SPV)

It was also observed that performance monitoring mechanisms were operationalized in a bureaucratic fashion which failed to provide opportunities for developing positive feedback loops and therefore reduced chances for improving performance:

> *If you look at the agenda of the Monthly Management Meeting, the way it is described in the contract is about beating with a stick the things that they are doing wrong.... In the contract, there is a lot of emphasis on' if things go wrong' and less emphasis on 'what we need to do to make sure they do things right'.* (Contract Manager-HA)

As previously discussed (see 'Theoretical Underpinnings'), if MCS do not provide opportunities for positive feedback for the contractors and/or they perceive some level of procedural *un*fairness in their deployment, this may negatively impact on performance and relationships. In these instances, the partners can rely on trust practices to agree collectively an acceptable level of controls (Minaar *et al.* 2016). Accordingly, the next section considers how trust practices between the HA and the SPV are developed and drawn upon in addressing MCS-related tensions.

IMPLICATION OF TRUST PRACTICES FOR OPERATIONALIZING GOVERNMENT'S PFI POLICY OBJECTIVES IN THE RCSP

While the RCSP contract contains provisions such as dispute resolution and joint-membership governance bodies, which could induce trust between the HA and the SPV, the findings from this research suggest that trust practices, such as collaboration and trust-based interaction between the HA and the SPV (and also between the latter and sub-contractors), emerged spontaneously in response to contractual tensions. Tensions between the HA and the SPV in relation to how the RCSP contract specified the outputs and performance expectations were revealed in the previous section. Particularly, it was observed that in the contract's early stages it was difficult for the SPV to interpret the output requirements in accordance with the HA's expectations, resulting in the SPV accumulating considerable performance points. In response, the SPV commenced dialogue with the HA and its sub-contractors to develop a mutual understanding of the output requirements and the expected level of performance:

When we first started off I think there was a degree of naivety on both parties about how this project would work …. And over the months and years it got progressively better. We would have regular meetings. We talked to them about the dilemmas we faced.... (CEO-SPV)

The respondents indicated that a limitation of PFI was that, since the contracts are drafted ex ante, they could not foresee and address all potential uncertainties, unintended consequences and inter-party tensions; hence, the control regimes might not provide guidance for managing such issues when they arise (Froud 2003; Broadbent *et al.* 2008; English and Baxter 2010). Therefore, the deployed MCS are unlikely to be aligned optimally with the potential risks and uncertainties:

It is not sufficient if your intent with this contract was to actually wrap everything up in the payment and performance regimes and never come and revisit them again, it is not enough. You know, you need to actually manage it actively …. (Contract Manager-HA)

Since predicting all possible uncertainties, whether related to contractors' performance, demand, relationships or hand back, is not practical in such long-term contracts, clauses that could provide mechanisms for collaboration and re-negotiations may be included (Chung 2016; English and Baxter 2010; Ross and Yan 2015). This was evidenced during the field site visits, that interactive dialogue and collaboration were being employed to address contract-related incompleteness and tensions. Indeed, the complexity of defining strategic (outcome-based) objectives, such as those related to improving congestion and safety for the commuters, was clearly evident. Here, it was found that trust practices over the operational phase could facilitate cooperation between the partners to develop (non-contractual) management strategies for dealing with performance-related ambiguities and complexities contained in the original control regimes:

What we found was that there was a complete mismatch between this [pointing to Schedule 18 of the contract] *and this* [pointing to a currently developed KPI document for the RCSP]. *What we tried to do was to bring the two together and that is why we created this document which is called the Network Business Plan. It is a practical document and what you can see here is how we look at all the strategic objectives and how we deliver against those on a year-by-year basis…. I would say it has limitations when you write it at this level* [again referring to the initially drafted Schedule 18]. (CEO-SPV)

Such collaboration was also viewed positively by the HA, with trust practices between the HA and the SPV involving collaboration consultants to facilitate risk-management dialogue:

I think we have also worked hard for building a kind of open dialogue about understanding each other's risks and concerns. We have employed ... collaboration consultants to help us come up with ways of defining acceptable behaviors.... What we try to do is to identify mutual risks, sort of high risks to one another. Collaboration and trust-building is really important for the visibility of our collective risks... and working jointly trying to resolve those. (Contract Manager-HA)

Lenferink *et al.* (2013) suggests that real partnership working (defined in this research as 'trust practices') between PFI partners could have significant (positive) impacts on project outcomes. Such trust practices could involve collaborative exploration and adoption of non-contractual management strategies for actively managing the project within a complex environment (Seal and Vincent-Jones 1997; Steijn *et al.* 2011). For instance, Chung (2016) highlights that PFI contracts usually omit formal guidance and controls for managing contract closure and asset hand back, with the absence of such clarity posing operational and relational risks. In the UK, there might be expected to be a greater need for PFI partners to utilize trust

practices over the operational stages for active network management than elsewhere in Europe since UK-based PFI contracts are more tightly structured by government (Steijn *et al.* 2011). While managing contract termination was not the focus of this research, the issue arose during discussions:

> *… I think the only test will be when the asset is handed back to the Agency. What happens is that if there is not enough cash in the contract to make the level of interventions that is required to maintain the network in a steady state, then that is a massive risk…. Things like the performance regime don't focus on that huge risk directly.* (Contract Manager-HA)

Contractors also expressed the need for regular collaboration with the HA to achieve project objectives as they only had limited influence over those (as discussed previously):

> *If you ask me to deal with … safety, actually if I am really going to have an impact on safety I should be working hand-in-glove with the Agency…. Similarly, in relation to congestion, the traffic officers there* [in the HA], *you have to ask yourself why aren't we one team?* (CEO-SPV)

Moreover, and consistent with Barretta *et al.* (2008), this research found that for managing complex (road) PFI projects such as the RCSP, trust practices are required not just between the public-sector client and the SPV, but the latter also has to work collaboratively with the sub-contractors to deliver project objectives, as the performance of the sub-contractors could impact the SPV's incentives:

> *In terms of relationship between us and the O&M-JV* [Operations and Maintenance Joint Venture], *I think there has been a lot of tension because our penalties have largely resulted from their lack of performance. So … we have a new initiative going on. Our goal and objective is to have an alliance programme.... We are also looking at …*

collaborative working on asset management…. So that is building bridges and I think that is working very well. (CEO-SPV)

With regards to the dis-incentives arising from the way payment mechanisms were functioning, both the public and private sector parties contended that the (original) formulation and operationalization of the payment regimes had delivered unexpected and unintentional results (as illustrated in the previous section), with the only way to fix those being collaboration and dialogue:

I think the main thing we didn't get right on these new [payment] *mechanisms is that we did not test them enough. Did we really want deductions in the first few years on safety mechanism or we didn't? … And there are similar issues with the congestion one…. A big issue for us is change and change management. I think we should have had in the business case the long term strategic risks of the Agency and how we intended to manage those with this contract. And in terms of change I think it is just damn hard work.* (Contract Manager-HA)

In order to address the anomalies with the payment mechanisms, particularly the SPA, the HA and the SPV have been negotiating changes to the underlying formulae in order to create appropriate incentives for the latter through these incentives:

We are looking at a strategic change of pay-mech to give them incentives and a bonus to go and do better things about safety and all other things. (Paymech Official-HA)

It follows from the above that trust practices involving collaboration, dialogue and the development of non-contractual project governance frameworks were important for overall strategic management including risk management over the whole life of the contract, and for adjusting MCS-related anomalies so that these could offer better incentives for the private sector to deliver the project's objectives. From the public sector's perspective, their

participation in trust practices is justified because of the reputational risk they bear for the continuity of the underlying contracted services (Shaoul *et al.* 2010, 2012):

> *What we want is the DBFO-Co to act as we would act in many ways. We expect from them that level of ownership. And they can only do that if we have a level of mutual understanding. And mutual understanding and trust are similar, not identical. I think mutual understanding is a kind of key point and trust I think is the next step on from that*. (Contract Manager-HA)

The notion that mutual understanding could enable development of a trust-based relationship in contractual inter-organizational settings is consistent with Minaar *et al*. (2016). They show that in order for contracting partners to develop relationships it might be important for them to show an understanding of each other's needs and to demonstrate the capability to translate these needs into strategic plans. Thus, an interactive review of the contract designed to develop a mutual understanding of each partner's needs could be constitutive of trust practices as well as contributing to the development of a trusting and collaborative relationship.

Similarly, from the private sector's perspective, it could be suggested that the adoption of trust practices was pursued by the SPV more enthusiastically for improving their understanding about the HA's output requirements and meeting performance expectations through non-contractual strategic management approaches, such as the Network Business Plan, in order to remain active in the PFI market:

> *Certainly, reputationally it is critically important that we deliver. That's why we have to have very proactive communication plans. We have to have very strong and dynamic risk assessments. We have to have a very integrated working with the HA. All this is pretty critical to make this contract work.* (CEO-SPV)

In sum, trust practices were important for the HA and the SPV for developing an agreed interpretation of the project outputs and outcomes; this led to the development of extra-

contractual strategic management efforts. Moreover, trust practices were also implicated for adapting the incentive regimes particularly the payment mechanisms, such that issues of dis-incentivization could be addressed. Overall, the trust practices played a significant role in mitigating performance and relational risk in the RCSP.

CONCLUDING REMARKS

Over the past two decades, the use of hybrid models, especially PPPs has increased globally for delivering strategic public infrastructure such as transport and particularly roads. However, to date, little is known about the operational dynamics of PPPs, particularly how accounting controls and inter-party trust practices (collaboration and joint-working) are employed in the governance of these contracts. Internationally, UK is recognized as a lead adopter of PPPs, with PFI being the most well-known. As mentioned above, previous PPP research has focused on the initial stages of PPP, with limited attention being given to examining operational projects (e.g. Shaoul *et al.* 2007; English and Baxter 2010; Toms *et al.* 2011; Andon 2012). In addition, prior research has tended to be critical of the outcome of the operational phase due to contract rigidity in the early phases of PPPs, with subsequent detrimental consequences for taxpayers (e.g. Broadbent *et al.* 2008; Shaoul *et al.* 2006, 2010; Demirag *et al.* 2012;).

Using a single case study approach, this paper examines how UK road PFI contracts are managed during their operational stages and develops our understanding of the roles and interplay of MCS and trust practices in achieving the government objectives in the RCSP. From an accounting and public administration perspective, a major theoretical and practical implication of the findings in this research is that, as the UK government's power to govern PFI projects through accounting and MCS may not guarantee achievement of the policy objectives, the additional enabling mechanism of trust practices is necessary. Indeed, this

research indicates that different ideologies and incentives between the parties can be negotiated and reconciled in practice through such practices. Thus, this research suggests that pragmatism (Rorty 1982) can overcome at least some of the difficulties anticipated in the PPP/PFI literature.

The analysis of the performance monitoring practices in the RCSP suggests that accounting provides the panoptical mechanisms for the HA to have knowledge about the performance of the SPV, thus enabling interventions in situations of under-performance. However, some elements of the performance monitoring mechanisms relating to original expectations on issues such as availability and safety, which have direct financial consequences on the SPV, functioned in a strict and bureaucratic style and did not provide positive feedback loops. Therefore, performance monitoring in the RCSP has limited positive impact on the performance and motivation of the SPV. The financial incentives, as practiced through the payment mechanisms in the RCSP, were also found to cause certain disincentives for the SPV and tensions with the HA. Firstly, certain elements within the payment mechanism did not incentivize the private sector appropriately to attain the relevant performance targets for accidents and congestions, as the contractors could not fully influence the factors responsible for their achievement. However, when the underlying HA's PFI transport policy objectives could be influenced by the contractors (e.g. managing road works during daytime), then the financial incentives were perceived to be effective in incentivizing the SPV (e.g. payment mechanism for lane availability). Secondly, payment mechanisms in the RCSP were failing to provide adequate incentives for the contractors against pursuing long-term strategic (and capital-intensive) performance targets (e.g. implementing safety and congestion-related improvement plans). This occurred because the underlying financial incentives were inadequate to fund such schemes. Thirdly, the RCSP reveals that the deployment of the payment mechanisms as per the government guidance could cause

dissonance, particularly if the contractors do not perceive that their performance is being measured and rewarded fairly. This was particularly observed in the case of how the SPA and PMR constantly penalized the SPV.

Although the monitoring and incentive regimes in the RCSP are elaborate and extensive, since they were deployed in a bureaucratic style they failed to induce trust-based cooperation between the HA and the SPV. This is consistent with Coletti *et al.* (2005) who argue that the trust-building benefits of MCS may not be experienced without feedback mechanisms. From a policy and practical perspective, while Coletti *et al.* (2005) contend that a strong MCS (i.e. increased monitoring and incentives) may be deployed earlier, the findings from this research suggest that given PFI contracts may include elaborate control regimes, they should be employed from the contract's commencement more *interactively* with opportunities for testing and adapting the regimes. This might substantially reduce the cost related to the deployment of, and subsequent changes to, MCS since early interaction and cooperation would foster a trusting relationship and could facilitate the (effective) operation of the controls. It is contended that PFI parties may instigate mechanisms for anticipated operational lifecycle re-negotiations. The availability of clear mechanisms and contractual guidelines for re-negotiations could avert substantial (avoidable) costs which otherwise would occur due to elaborate systems of arbitration (Bajari *et al.* 2014; Ross and Yan 2015). In particular, changes to existing MCS could be challenging as these performance measures are driven by complicated contractual agreements determined by the DfT and HMT guidelines, and they also involve significant financial outcomes together with complicated calculations and risk assumptions.

Furthermore, the analysis of the enactment of trust practices in the RCSP suggests that they enable spontaneous and un-programmed opportunities for the SPV and the HA for agreeing on revisiting certain MCS elements. This is consistent with Minnaar *et al.'s* (2016)

assertion that trust can emerge as a 'quasi' actor in inter-organizational networks as a result of the assignment of 'properties of trust' to the contract (MCS in this case). Moreover, given PFI's complex nature, the pattern of trust practices and its implication for reshaping accounting and MCS in the RCSP could be an 'organizational response' stimulated by institutional complexity (Fossestøl *et al.* 2015). In PFIs, institutional complexity may be imposed by the plurality of players involved in the design and execution of the contract (e.g. HMT, Partnerships UK, private consultants, contractors and financiers). This could potentially cause mission-misalignment because of the multiple (conflicting) objectives involved (Lethbridge 2014). With such complexity, PFI contracts remain under stress and could raise governance and control challenges for the principal (state), as it is difficult to terminate an existing PFI contract and replace parties (e.g. contractor) (House of Commons Public Accounts Committee 2003; NAO 2006; Jupe 2011). Thus, inter-party trust practices in PFI are essential for sustaining partnership between the parties.

This argument is consistent with literature on governance of public-sector networks. For example, Lenferink *et al.* (2013) contend that interactive dialogue and collaboration between public and private sector partners could span the planning, procurement and post-procurement lifecycles. The authors argue that this could enable the partners to gain continuous insight into each other's mission and issues (i.e. goal congruence), leading to improved relations and development of trusting relationship (Cuevas *et al*. 2015). Our findings on how trust practices are used in the RCSP for achieving the project objectives are also supported by Steijn *et al*. (2011), who posit that it is managerial (i.e. network management) strategies within PFIs which could have a significant impact on the project outcomes. Such managerial strategies involve efforts for collaboration, joint working and greater exchange of information (what we conceptualize here as trust practices), without which it is difficult, or perhaps almost impossible, to achieve desired outcomes (Meier and O'Toole 2007; Klijn *et al.* 2010). Thus,

the contract managers from the public and private sector partnering organizations in PFIs (at least in the UK roads sector) would have to perform (additionally) as network managers (Steijn *et al.* 2011). This could be challenging for these managers as UK PFIs are structured by relatively tighter contracts than their counterparts in rest of the Europe. This provides some interesting research avenues in a sense that accounting or public administration researchers analyzing the translation of NPM-based MCS within contemporary public-sector networks could consider studying the role of trust practices as well as network managers, as enablers.

Because of differences across countries in terms of policy interventions and institutional arrangements for public service delivery, PPPs (and PFIs) are an area of great diversity (Warner and Bell 2008; Hodge and Greve 2017). This RCSP is a special case within the UK's road PFI context, and this may limit the extent to which these research findings can be generalized. However, given that there exists scarce empirical evidence about the micro-level operational management and relationship practices for these hybrid organizations (Steijn *et al.* 2011; Andon 2012; Chung 2016), our study provides new insights which could form the basis for further research using comparative case studies. Research is also needed to analyze the significance of the performance-based incentives in financial terms. This is important given that PFI investors are reported to have earned high returns (Acerete *et al.* 2010; Hellowell and Vecchi 2012). Also, it is contended that the private sector could influence the terms of the contract in their favour, thus undermining the public-sector planning process and objectives of public goods and VFM (Bel *et al.* 2014; Sclar 2015). These controversies surrounding PFIs raise concerns about the significance of the performance-based payment mechanism as a control tool, with consequent implications on whether (and when) PFI is an appropriate policy tool.

This research studies the effectiveness of the deployed MCS in the RCSP with respect to their impact on achieving the HA's objectives. However, in terms of government's mission in

PFIs and its accountability, we suggest that an analysis of users' (commuters') satisfaction could be conducted in future research projects (Greiling *et al.* 2014), together with what MCS are adopted by consortium members and how trust practices among the private partners play a role in delivering project objectives. This might facilitate an assessment of whether (and how) PFI can deliver VFM for taxpayers.

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Notes

[a] Internationally PFI-type procurement models may be referred to as, Privately Financed Projects (PFPs) or Public Private Partnerships (PPPs or P3). This paper uses the UK-specific term, PFI. This is a long-term arrangement under which a government department can buy (through competitive bidding) construction services for public infrastructure (e.g. a road), as well as post-construction maintenance and operations of the infrastructure, from the private sector under a single contract in return for unitary payments which are linked to the latter's performance with respect to the contracted services. Procurements under PFI are mainly privately financed, with contracts typically running for 25-30 years (Her Majesty's Treasury 1995, 2008).

[b] In 1994, the UK government established the HA as an executive agency of the Department for Transport with responsibility for the construction and maintenance of England's strategic road network. In April 2015, the HA became a government company, 'Highways England'. The existing PFI assets and liabilities (including the RCSP discussed in this paper) were transferred to the newly formed company (Highways England 2016).

[c] Throughout this paper, such control regimes are referred to as MCS (management control systems), particularly those deployed within public-sector networks where a government department uses them to control service-delivery organizations with the purpose of influencing the latter's behavior in order to achieve desirable or predetermined outcomes (Marques et al. 2011, p. 271).

[d] Which cannot be cited for confidentiality reasons.

[e] Which cannot be cited for confidentiality reasons.

[f] Two other sections were considered for later widening and were assessed as suitable for using hard shoulder at an initial stage. The shortest section of the five was combined with an existing improvement scheme on another road under the HA.

[g] As elements of these documents were redacted including the financial values related to the payment mechanism, it was not possible to analyze the payment-based incentives from a financial perspective.

[h] Key Performance Indicators.

[i] Figure B illustrates the KPIs for the RCSP's primary project objectives of reducing congestion and improving road safety. These KPIs were selected through the analysis of the RCSP's Business Case and Schedule-18 of the contract, on the basis of the following guiding principles:

- significance of the KPIs in terms of concurrence with government's strategic goals regarding improving safety and reducing congestion (Department for Transport 2000a, b, 2004); and
- ensuring that the associated incentives regimes for the (selected) KPIs have been fully operational since the commencement of the project.

[j] The partnering organization expects to gain an economic or strategic benefit from cooperating (Marques et al. 2011).

[k] If the partnering organization does not cooperate it will receive sanctions or penalties (Marques el al. 2011).

[l] In older HA road PFI contracts, these were called 'penalty points'. During the interviews, it was acknowledged that the term has been changed to avoid the negativity associated with the word 'penalty'.

[m] Killed or seriously injured.