

Towards an understanding of strategic control at a distance in public service delivery

Salman Ahmad¹; Ciaran Connolly²; Istemi Demirag³

Abstract:

Purpose- This paper explores how localized (organization-level) actors of policy initiatives that are inspired by neoliberal ideologies use management accounting and control practices. Specifically, it addresses the operational stages of a case study Private Finance Initiative (PFI) contract within the United Kingdom's (UK's) transport sector of roads for embedding government objectives in the underlying project road.

Design/methodology/approach- This paper adopts Dean's (2010) analytics of government to unpack the accounting-based control practices within the case study contract in order to articulate how, at the micro level, the government's objective of improving road-users' safety is enacted, modified and maintained through such regimes.

Findings- Drawing on a content-based analysis of UK government PFI policy and extensive case study-specific documents, together with interviews and observations, this research provides theoretical insights about how control practices, at a distance without direct intervention, function as forms of power for government for shaping the performance of the PFI contractor. We find that the public sector's accounting control regimes in the case study project have a constraining effect on 'real partnership working' between the government and private contractors and on the private sector's incentive to innovate.

Research limitations- By analyzing a single road case study PFI contract, the findings may not be generalizable.

Originality/value- This paper provides significant theoretically-informed insights about how public service delivery that is outsourced to private contractors is controlled by government at a distance within complex organizational arrangements (e.g. PFI).

Keywords: Private Finance Initiative (PFI); Public Private Partnership (PPP); Management Accounting; Controls; Governmentality.

Article Classification: Research paper

1. Introduction

Management control systems (MCS) can be deployed by governing authorities to implement their strategic (policy) goals (Spence and Rinaldi, 2014; Narayan and Stittle, 2018), with accounting

¹ Lecturer in Accounting, Aston Business School.

² Professor of Accounting, Queen's University of Belfast.

³ Professor of Accounting, Taltech, Estonia.

being perceived as essential to such interventions as it offers calculation and inscription practices which enable governing from a distance (Walker, 2016). Arguably, MCS become even more crucial in network models of organizations as they are the instruments or processes for *mediating* and *shaping* the performance of the partnering organizations towards the strategic goals of the governing authority (Zahir-ul-Hassan *et al.*, 2016).

The United Kingdom's (UK) enthusiasm for neoliberal policies is evidenced through the Conservative Government's privatization policies in the 1980s and the subsequent adoption of network or mixed models for public service delivery (Jupe, 2012; Chiapello, 2017). Networks involving only public sector organizations (public-public) are usually state regulatory interventions designed to foster inter-organizational collaboration and coordination (Barretta and Busco, 2011). In contrast, those driven by government agendas seeking to capture private sector innovation and management skills for public service delivery typically involve a public-private arrangement (Skelcher, 2005), with the private partner being a 'supplier' of public services rather than a passive investor (Sclar, 2015). As such, public-private networks support neoliberal ideals by promoting private sector management styles for public service delivery (Alonso *et al.*, 2015). Thus, the public procurement policy of Public Private Partnerships (PPPs) (popularly known in the UK as the Private Finance Initiative (PFI)⁴) is a manifestation of successive governments' commitment to continued neoliberalism (Baker *et al.*, 2009; Jupe, 2011).

Typically, the private partner in PFI contracts is a 'special purpose vehicle' (SPV) which subcontracts the finance, design, construction, maintenance and soft services to companies that are often related to its shareholders (Demirag *et al.*, 2012). Consequently, PFI contracts can be challenging to manage, not only due to their long-term nature, but also because operational issues are delegated to private contractors (Shaoul *et al.*, 2012). Moreover, the procuring government department typically has to develop the project objectives *a priori* that need to be operationalized over the length of the contract through the contractual MCS (e.g. performance monitoring and incentives) (Ahmad *et al.*, 2018). Hence, via the deployed MCS, PFI contracts constitute mechanisms of *self-government*⁵ for the contractors (Foucault, 1988).

As successive UK governments have justified the use of PFI on the basis that the embedded MCS induce private sector innovation and enhance project management in delivering the specified services (Her Majesty's Treasury (HMT), 2008), it is consistent with a neoliberal ideology which proposes sovereignty of the subjects (individuals) on the basis that "human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework" (Harvey, 2007, p. 2). However, while neoliberalism seeks to reduce state's role and thereby grant authority to the private sector for delivering public services, this has implications for accounting technologies (MCS) which need to create both an enabling and regulated environment (Jupe and Funnell, 2015).

In PFIs, this is particularly relevant to the incentive regime, mainly the payment mechanisms, which links the contractor's financial returns to the achievement of performance targets. Moreover, from a PFI perspective, as the contractor has a contractual obligation to meet performance targets, this arguably minimizes the scope for individual agency, with self-governance supposedly being

⁴ We use the term PFI to refer to PPPs. PFI typically involves the procurement of infrastructure assets whereby a private sector contractor provides construction and post-construction operations and maintenance services to a public sector purchaser in exchange for unitary payments.

⁵ Through technologies of the self, the individual is able to govern himself or herself based on some ideals; however, in doing so, he/she conforms to specified political rationales and technologies (Foucault, 1988).

established since contractors (should) have autonomy on *how to achieve* the performance targets. Thus, we consider the extent to which the deployed MCS enable (or otherwise) such freedom.

While previous studies emphasize the crucial role of MCS in operationalizing government policies and providing strategic directions for departments (Frame and Bebbington, 2012; Narayan and Stittle, 2018), little attention has been paid to how conflicts and disagreements between public and private parties are resolved and good practices rewarded (English and Baxter, 2010; Chung, 2016; Ahmad *et al.*, 2018). Furthermore, while the first tranches of UK PFIs involved roads (Edwards *et al.*, 2004), and internationally the transport sector of roads has remained the major recipient of PFI investment (Yehoue, 2013), management control issues within operational PFI-road contracts have received limited consideration (Shaoul *et al.*, 2007; Chung, 2016; Ahmad *et al.*, 2018). This represents a considerable gap in our understanding of PFIs as the operations and maintenance phases are very different from the initial contracting and construction stages with the former's greater uncertainty impacting upon public-private party relationships (Burke and Demirag, 2017), often due to performance measurement subjectivity because the outputs are not 'concretely' measureable (English and Baxter, 2010; Chung, 2016). This paper contributes to this deficit by providing a better understanding of *how* differences, together with penalty and incentive schemes, unfold and thus offers insight into the chameleonic strength and durability of accounting-based controls in supporting neoliberal initiatives such as PFI.

Using a single case study approach (Yin, 2012), this research explores how MCS in a major PFI-road project under the authority of the UK's Highways Agency (HA)⁶ operationalize the government's strategic objectives. The case study contract (Alpha) is one of the largest PFI-road contracts in Europe. Applying Dean's (2010) analytics of government, we explore how the objective of *improving road-users' safety* is operationalized within Alpha through MCS that predominantly involve performance monitoring and incentive regimes. More specifically, this research examines the *techniques and practices* (i.e. MCS) deployed in Alpha as a *means* for improving safety. Accident reduction and road-users' safety are fundamental objectives for the UK Department for Transport (DfT) (2000, 2004, 2015) and our purpose is not to critique these goals or PFI policy but rather to examine how accounting is implicated for achieving such objectives in complex networks using the case study Alpha.

Given our emphasis on examining MCS within Alpha as technologies of government, the contract is another such technology, inviting a debate about MCS vis-à-vis contracts (Minnaar *et al.*, 2017). Regimes of governing practices can be numerous and mutually influencing (Spence and Rinaldi, 2014), especially with PFI contracts that have multiple performative elements, together with MCS (Klijn and Koppenjan, 2016). However, since MCS, particularly performance monitoring and incentives, are at the heart of PFI-contract governance (HMT, 2003, 2007), these are the focus of analysis in Alpha.

In terms of structure, this paper proceeds by summarizing accounting-related research on control and governance issues in operational PFIs, followed by an explanation of Dean's analytics of government. Then, the background to Alpha and the methods applied for the empirical analysis are explained. Finally, the findings are discussed and conclusions drawn.

2. Prior research on operational PFIs

Accounting-related PFI research has focused on the macro (policy) perspective and pre/early operational decision-making (Andon, 2012), particularly with respect to how 'risk' and 'value for

⁶ In 2015, the HA became a government company, 'Highways England', with the existing PFI assets and liabilities (including Alpha) being transferred to the newly-formed company (Highways England, 2016).

money' (VFM) are conceptualized and operationalized (Opara and Rouse, 2018). While there is evidence that PFI projects have not provided VFM (Acerete *et al.*, 2011), letting projects fail is not good for any party, especially in terms of maintaining public service delivery and the reputation of government (Burke and Demirag, 2015; Shaoul *et al.*, 2012), with it being accepted that intervention must be carefully considered to ensure the appropriate use of public money and avoid setting a precedent.

An important research theme that has received limited attention is the role and effect of accounting practices on operational contract management (Chung, 2016; Caperchione *et al.*, 2017; Ahmad *et al.*, 2018). Appendix 1 indicates only nine studies (shaded rows) have empirically examined controls and inter-party relationships in operational PFIs. The remaining six papers provide a normative discussion (based upon a literature review) on the control and management of PFI contracts (Broadbent *et al.*, 2003; English *et al.*, 2010; Liu *et al.*, 2015) or a review of performance audits by independent bodies of operational PFIs (Pollock and Price, 2008). The nine highlighted papers utilize case study methods to explore the controls and inter-party relationships during the cases' operational phases. For example, Abdullah and Khadaroo (2020) examine the role of control in building trust in a school context, together with how trust in turn affects control. Chung (2016) illustrates how inter-party collaboration becomes performative in managing the hand-back of an Australian PFI-road project, while Ahmad *et al.* (2018) address the implementation of MCS in a UK-based PFI project, including how these are influenced by inter-party trust practices. Similar themes are tackled by English and Baxter (2010) in Australian prison PFI contracts, with Broadbent *et al.* (2004, 2008) and Edwards *et al.* (2004) exploring different aspects of MCS associated with managing risk and VFM during post-procurement.

Whilst the above research enhances our understanding of governance-related challenges and risks during the operational stages of PFI contracts, MCS effectiveness is not addressed. Moreover, aspects of the findings are conflicting. In some early PFIs, the private sector had little input into the MCS design (Broadbent *et al.*, 2004), whilst procuring government departments struggled to develop key performance indicators (KPIs) for the project, particularly for non-quantifiable (qualitative) outcomes, which caused dissonance among the contracting partners (Edwards *et al.*, 2004). In contrast, English and Baxter (2010), Chung (2016) and Ahmad *et al.* (2018) contend that difficulties in defining KPIs and other contractual clauses at the beginning of such long-term contracts, which might trigger performance and relational risks, can be addressed through (non-contractual) collaboration and trust practices in operational PFI contracts. Indeed, Abdullah and Khadaroo (2020) suggest that control *per se* and trust can evolve and co-exist.

Our paper provides a theoretically-informed examination of how the operationalized MCS in Alpha *construct* the project objectives such that the deployed control regimes strategically direct the contractors. This is important because, compared to other jurisdictions, as UK PFI contracts are typically more structured due to UK central government guidelines (Steijn *et al.*, 2011), it is imperative to understand the ongoing dynamics of MCS in operational PFI contracts (Ahmad *et al.*, 2018). Moreover, operationalized MCS in UK PFIs have evolved into stringent performance-based mechanisms (Shaoul *et al.*, 2007), with Alpha being a recent example, whereas previous PFI-road case studies have examined older shadow toll contracts (e.g. Edwards *et al.*, 2004). Consequently, this study provides insights about MCS regimes not investigated previously and identifies that, despite elaborate monitoring and incentive regimes compared to predecessor PFI-road contracts, difficulties remain for the underlying MCS to achieve their objectives.

3. Governmentality and analytics of government

Our conceptual perspective for understanding the role of MCS as forms of power (i.e. technologies of government) in Alpha draws from the governmentality literature (Foucault, 1991), specifically Dean's (2010) analytics of government.

Dean (2010) suggests that in neoliberal states central government does not attempt to achieve its objectives through direct controls, but power (governance) is exercised through a network of diverse elements as the role of government is reduced to enabling citizens to help themselves (Bujaki *et al.*, 2017). Foucault (1991, p. 102) terms this complex network of diverse constituents forming government as 'governmentality', defining it as "[t]he ensemble formed by the institutions, procedures, analysis and reflections, the calculations and tactics that allow the exercise of this very specific albeit complex form of power". As such, the implementation of policy objectives involves convergence of political discourse, knowledge and experts to present problematized (governable) issues and (discursively articulated) objectives as a form of truth. These are then pursued through an ensemble of regimes of governing technologies involving disciplinary and self-governing mechanisms (Rose and Miller, 1992; Nyamori, 2009). Consequently, accounting technologies (such as MCS) are a fundamental means for governing organizations (including network-models) (Eckersley *et al.*, 2014; Spence and Rinaldi, 2014) and society (Mennicken, 2010; Maran *et al.*, 2016; Walker, 2016) since, through calculative, inscription and recording practices, they have the capacity to mediate between the goals of the (localized) actors.

Chiapello and Baker (2011) contend that governmentality provides a useful conceptual framework for studying neoliberal reforms that involve networking and increasing the private sector's role in public service delivery as it enables researchers to identify the relationship between governing rationalities and their associated regimes of governing (accounting) technologies. As Dean's (2010) analytics of government, which builds upon Foucault's (1982, 1991) lectures on 'governmentality' (Raffnsøe *et al.*, 2017), conceptualizes governmentality as requiring the elements of problematization, utopian ideals and regimes of practices, its application facilitates unbundling aspects of such regimes and an understanding of how policy objectives or rationalities are embedded into the associated governing technologies (Frame and Bebbington, 2012). While Dean's framework has been applied in accounting research on sustainability (Frame and Bebbington, 2012; Spence and Rinaldi, 2014), these studies acknowledge that it has the potential to provide new and distinctive explanations about regimes of practices by analyzing how they are linked to the underlying policy rationalities. Thus, this paper adds to existing governmentality-based accounting studies by adopting Dean's framework for analyzing a complex PFI organization and provides important insights about the effectiveness of MCS (in Alpha), together with the challenges for accounting-based governmentality when confronted by different operating logics.

3.1 Analytics of government

Commenting on government as 'conduct of conduct', Dean (2010) suggests that the verb means to guide, direct or lead, whereas the reflexive verb implies self-direction or self-regulation. Directing behavior towards certain ends is possible when there are standards or norms, together with when there are agents to ensure that the behavior complies with those standards or norms. This implies those agents, who are responsible for regulating (or controlling) the behavior of subjects, can also deliberate and intervene. Dean contends that governing practices are constitutive of self-governance, with intervention taking the form of programmes that shape the 'field of action' and empower the actors to choose how to act (Nyamori, 2009).

An analytics of government requires an examination of the agents and authorities, the forms of knowledge integrated with governance and the associated technologies of government. It addresses “how thought operates within our organized ways of doing things, *our regimes of practices*, and with its ambitions and effects” (Dean, 2010, p. 27) and is the means “by which the actual governing activity is achieved” (Frame and Bebbington, 2012, p. 252). As regimes can be institutionalized practices if they are routinized and ritualized (e.g. MCS within inter-organizational settings) (Mouritsen and Thrane, 2006), an analytics of government places regimes of practices at the heart of the analysis to ascertain their intrinsic logic (Spence and Rinaldi, 2014). This requires an examination of four aspects or dimensions of the regimes of practices, which Dean proposes as axes of governmentality: *fields of visibilities, knowledge, identities and techniques and practices* (Table 1). These four axes co-exist and interact, with no one reducible to another. The remainder of this section discusses these four axes, which form the basis of our empirical enquiry.

Table 1 Dimensions of the analytics of government

(a)	Problematization	(Identification of) social issues/problems in policy discourse that represent government’s recognition of the need to intervene through policy initiatives for rectifying the issues/problems.
(b)	Utopian Ideal	(Identification of) the objectives in policy discourse that are sought through government’s intervention and which direct the regimes of (governing) practices.
(c)	Regimes of Practices	The elements (axes) that form the activities, mechanisms, ways or technologies of government through which policy goals (which arise from the problematization and utopian ideals) are embedded in social, organizational and individual practices. Regimes of (governing) practices operate along four axes:
	(i) Fields of Visibilities	Distinguished attributes of governing created by the use of particular techniques and practices;
	(ii) Knowledge	Types of knowledge used and produced within the techniques and practices;
	(iii) Identities	Individual and collective identities that emerge from and support the governance processes. This includes professional or specialist knowledge through which programmes are made operable; and
	(iv) Techniques and practices	The means, mechanisms or technologies used by government to shape conduct (i.e. govern) to achieve their objectives (which may create visibilities, knowledge and identities).
<i>Source:</i> Dean (1999); Frame and Bebbington (2012).		

Fields of visibility:

Dean (2010, p. 41) argues that fields of visibility “...make it possible to ‘picture’ who and what is to be governed, how relations...are constituted...what problems are to be solved and what objectives are to be sought” (e.g. an architectural drawing, a management flow chart, graphs or tables). In applying the field of visibility analytics, we are seeking to understand the ways that ‘increasing road-users’ safety’ are perceived and framed as operational goals within Alpha, and how that constitutes the SPV as a (self-governing) subject.

Knowledge:

This represents the expertise and calculative techniques that inform or arise from governing activities. It is characterized by ways of thinking, reflection and questioning of government that rely on certain vocabularies and procedures that constitute truth (Foucault, 1991). In Alpha, we examine the focus (agendas), structure and outcome of the reports, meetings and other means of inter-party communications that are prescribed or practiced for safety-related performance review and management. An important issue in PFI projects, including Alpha, is the tension of producing objective data for (subjectively assessing) road-users’ safety.

Identities:

Dean (2010) argues that government programmes create regimes of practices that engender individual and collective roles, attributes, orientations and positions (i.e. *identities*) for both those who govern and those who are governed, which includes assigning agency for conducting upon others and oneself (Frame and Bebbington, 2012). For example, government programmes might conceptualize service users as customers and distinguish between desirable and less desirable public service organizations (Nyamori, 2009). Hence, given the individual and collective identities that emerge from and support the governance processes (e.g. professional or specialist knowledge through which programmes are made operable) (Spence and Rinaldi, 2014), it is important to understand those which the MCS construct for the SPV vis-à-vis the project objective of improving commuters’ safety.

Techniques and practices:

Dean (2010) contends that if government is to achieve its goals, it must use certain technical means for intervention that, linked to underlying policy (or political) rationales or values, limits decision making. For example, for the government to manage the economy, economic models that take account of matters such as the balance of payments or inflation are utilized (Dean, 2010). Thus, techniques of governmentality may be mundane systems of inscription and notation, vocabularies, trainings or professional expertise through which government is achieved (Miller and Rose, 1990). However, the deployment of such techniques may constrain achievable outcomes, create unexpected problems or even cause dissonance (Spence and Rinaldi, 2014). For Alpha, we focus on those aspects of the MCS (e.g. (financial) incentives) which empower the HA to intervene to achieve the safety-related goals.

4. The case study and research methods

4.1 Background

Alpha, which was signed during the late 2000s, is a 30-year contract, with the HA having executive responsibility for its management. Alpha is distinctive from other UK PFI-road projects because

of the complexity of its incentive regimes, particularly the payment mechanism, and their links to the performance outputs. The project's rationale was:

[Alpha] 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. (Alpha's Business Case)

Under the contract, the SPV was responsible for widening (construction) two motorway sections (approximately 40 miles), together with operations and maintenance over the contract period for the entire project road (approximately 242 miles, including certain bridges and tunnels). The operationalization of the project's objectives, to improve road-users' safety during the operations and maintenance stages, required the SPV to perform against performance measurement and incentives regimes informed by KPIs set by the DfT. These are discussed below.

4.2 Research methods

For governmentality-informed qualitative research, document analysis represents a primary component because an examination of the language and the artefacts employed in the governing documents enables researchers to develop a critical understanding of the underlying systems of thought and action (Maran *et al.*, 2016). This study is qualitative, with data being collected and analyzed in several stages. Our primary source was the case-related documents, including: Alpha's Business Case and Contract, obtained under a Freedom of Information Act (2000) request to the HA; HA online policy information about PFI-road procurement; HMT and National Audit Office (NAO) guidance on PFI-payment mechanisms, contract and inter-party relations management; and other related publicly-available reports and articles (Table 2). The principal document of analysis was 'Schedule 18 Contract and Performance Management' (Schedule 18), which is the main governance document for Alpha and which provides a detailed framework of the control regimes deployable during the project's operations and maintenance stages. Additional (confidential) documents addressing the day-to-day operations of the MCS were obtained during the authors' visits to the case study sites and through email correspondence with the contract representatives (these included safety-related performance reports produced by the SPV, charts levying the performance points, payments and other penalties and rewards and trends in accidents).

Initially, we familiarized ourselves with the relevant literature and the regimes of MCS in Alpha in terms of their elements, deployment and consequential outcomes. Then, applying the analytics of government as our guiding framework and relevant literature (Silverman, 2011; Frame and Bebbington, 2012), we created a hierarchy of base codes to categorize the data in terms of how it could be seen to be contributing to the governmentality (of road-users' safety) in Alpha. Next, the documents referred to above were imported and analyzed in NVivo-9.2 to identify patterns as to how the macro-level policy guidance (including HMT, NAO and HA guidelines) on managing PFI contracts is translated into the SPV's everyday activities. The subsequent coding focused on the safety-related KPIs, monitoring and incentive mechanisms (including the payment-based incentives) and frameworks for inter-party negotiations and contract management and how those were shaped by the macro-level guidelines.

To develop our understanding of the MCS in Alpha, semi-structured interviews were conducted with senior officials at the HA and SPV in order to appreciate the lived experiences of the actors (Qu and Dumay, 2011). As those involved in the day-to-day management of Alpha would likely have insights into its operational aspects, we initially contacted Alpha's Contract

Manager at the HA (who is also the Asset Delivery Manager) and the SPV's Chief Executive Officer (CEO) (who is the prime owner of the KPIs under the contract). Consequently, four (semi-structured) interviews were arranged and undertaken, two at the HA and two at the SPV (with each lasting approximately one hour). The Contract Manager in the HA (CM-HA) and two payment mechanism officials with responsibility for calculating the SPV's payments (hereafter PO-HA) were interviewed. In the SPV, the CEO (hereafter CEO-SPV) and finance director (hereafter FD-SPV) were interviewed. The interviews were audio recorded with the interviewees' permission and later transcribed. The interview themes were shaped by the literature review, theoretical insights and document analysis and focused on the effectiveness (or tensions) of the MCS, addressing issues such as the respondents' perceptions of and experience with the safety-related KPIs and underlying monitoring and incentive regimes. To enhance the relevance of the interviewees' responses, respondents were asked to illustrate their answers with practical examples (Marginson, 2004). Thus, the interviews not only provided opportunities for triangulating our findings from the document analysis, they also furthered our understanding of what we were seeking to investigate, that is, the enabling effects of the MCS for operationalizing Alpha's safety objectives through the KPIs and their associated monitoring and incentive regimes.

To confirm our understanding of the document analysis and interviews, the interviewees were provided with a summary of our analysis for comment. This facilitated two follow-up telephone interviews, each lasting approximately 45-minutes. Additionally, one of the co-authors visited the case road on a number of occasions to observe how safety-related performance issues were operationalized, including the private sector's intervention regarding safety improvement measures on the project road, and corresponded with the themes emerging from the analysis. However, as will be explained in the next section, besides the use of safety signs and implementation of speed limits, no other distinctive initiatives by the contractors were observed. Since we engaged with senior people involved in the day-to-day management of Alpha who gave freely of their time for interview, shared confidential documents and allowed on-site access to the case road, further interviews were deemed unnecessary in order to avoid data overload (Marginson, 2004; Qu and Dumay, 2011; Spence and Rinaldi, 2014; Bartocci *et al.*, 2019). Moreover, the various methods employed gave the authors comfort that a saturation of themes had been reached (NCRM, 2012; Power and Gendron, 2015).

By applying the theoretical lens of the analytics of government, the findings were framed from a governmentality perspective and written-up, and subsequently refined through iterative meetings and discussions with other research colleagues (Zahir-ul-Hassan *et al.*, 2016). These sequential stages permitted the authors to better understand the regimes of MCS deployed in Alpha and categorize the contents of Schedule 18 (and hence the associated coded data from other sources) from the perspective of the four axes of analytics of government (*fields of visibility, knowledge, identities and techniques and practices*).

Table 2 Key documents analyzed

Alpha[#]	HMT[#]	NAO^{**}
(i) Business Case (ii) Operations and Maintenance Contract including Schedule 18 (iii) Parliamentary, NAO and newspaper reports on Alpha (iv) SPV's Annual reports, performance reports and on-line project updates (v) HA's on-line policy narrative on PFI procurements (vi) Project control and governance documents obtained from interview respondents during field visits and through follow-up emails	(i) PFI: Strengthening Long-term Partnerships (2006) (ii) VFM Assessment Guidance (2006) (iii) Operational Taskforce Note 2 – Project Transition Guidance (2007) (iv) Standardization of PFI Contracts – Version 4 (2007) (v) OGC and HMT guidelines on Competitive Dialogues (2008) (vi) Infrastructure Procurement: Delivering Long-term Value (2008) (vii) Contract Expiry Guidelines, Operational Taskforce Note 4 (viii) Public Private Partnerships – Technical Updates (2010)	(i) Managing Relationships to secure a successful Partnership in PFI projects (2001) (ii) A Framework for Evaluating the Implementation of Private Finance Initiative Project, Vol. I and II (2006) (iii) From Private Finance Units to Commercial Champions: Managing complex capital investment programmes utilizing private finance - A current best practice model for Departments (2010)
* All NAO reports on UK-road PFIs were also analyzed. # The documentary data highlighted in this table comprised approximately 1,500 pages.		

Having outlined the background to Alpha and the research methods employed, the next section presents the empirical analysis.

5. An analytics of government in Alpha

A key rationale for adopting PFI is concerns over conventional public sector infrastructure procurement to deliver appropriate governance, control structures and hence VFM (Sclar, 2015). From a policy (rhetoric) perspective, successive UK governments have supported PFI, claiming its contractual controls can induce whole-life planning and execution of project services, thus enhancing VFM for government and services users (HMT, 2007, 2008, 2012). This section places these claims in the context of Alpha and explores the (hidden) rationality and mechanisms in place to govern the project road, specifically with respect its objective of improving road-users' safety.

5.1 Fields of visibility

By applying the 'visibility' analytic, we seek to understand how the UK government's aim of improving road-users' safety is perceived and constructed in Alpha. Our findings reveal that road-users' safety is given legitimacy and visibility at different strategic levels of (policy and decision-making) discourse and operations. At the macro-level, it is at the forefront of several transport policy documents that shape the broader political modernization objective (Jupe, 2011). From early 2000s, the DfT emphasized road network investment, modernization and expansion as primary capital investment objectives, with PFI being a major contributor to this (DfT, 2004). For example, DfT (2000) allocated £21 billion to the strategic highways network (which includes Alpha)⁷, of which 25% was allocated to PFI. Alpha's justification was driven by increasing demand for the underlying motorway, with severe congestion and causal accidents being problematized as justification for the contract:

...it was a comprehensive spending review in early 2000s...which identified a package of capital works on the Strategic Road Network. This indicated that 25% of that works was to be funded through private finance. There was a kind of overarching strategy to drive an element of private sector investment in that programme and [Alpha] was part of that. (CM-HA)

The DfT also uses Public Service Agreements as performance targets for the allocation of public expenditure (Micheli and Neely, 2010), with road-users' safety forming an important element of these:

The devastating impact of serious and fatal accidents mean that network safety remains the number one consideration of road users and a priority for those tasked with developing and managing the Strategic Road Network. (DfT, 2015, p. 59)

Road-users' safety has economic visibility, with government estimating that the cost associated with collisions on UK roads is £15 billion annually and intending to spend approximately £105 million on (additional) measures to boost safety, such as speed restrictions and new tunnel safety systems (DfT, 2015).

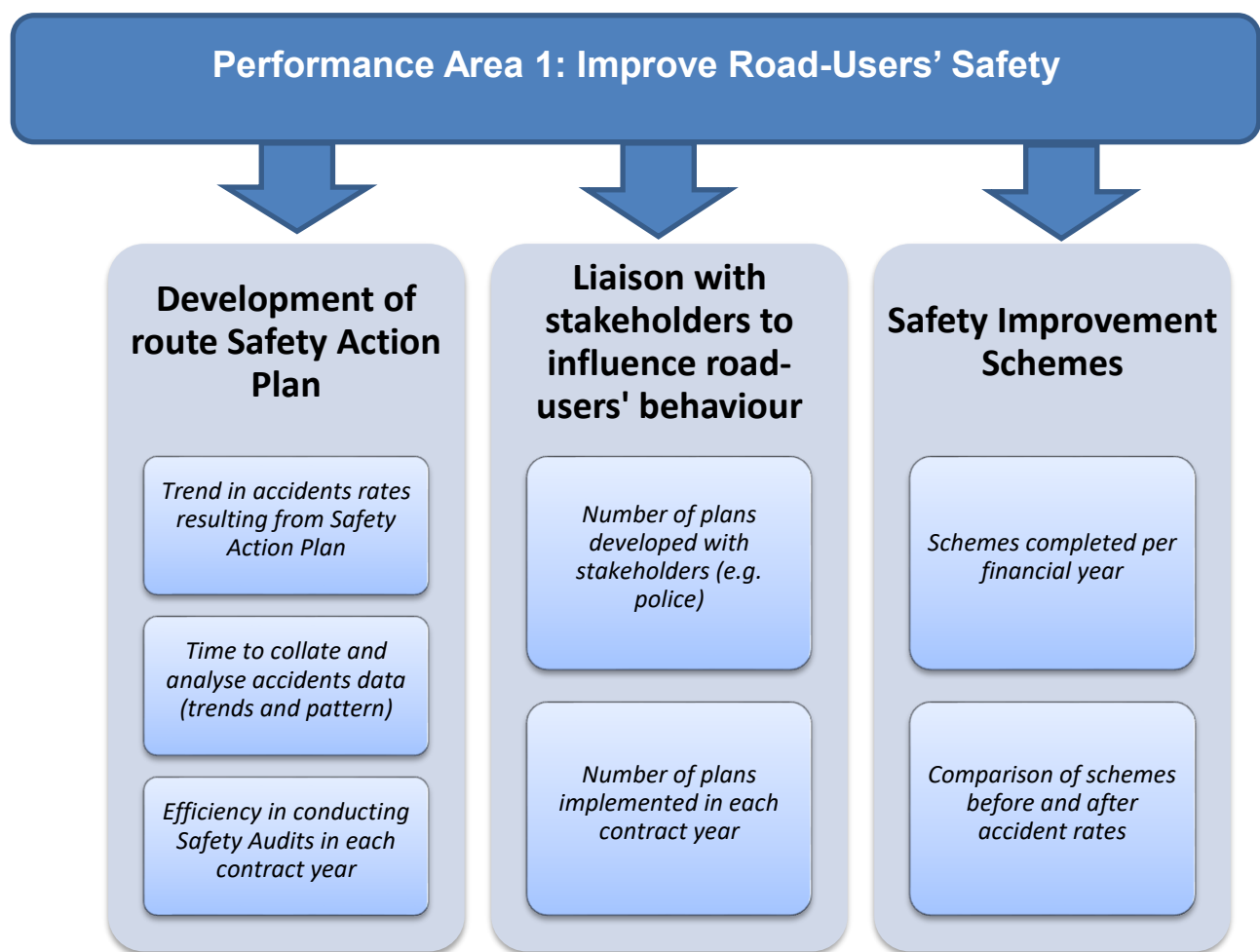
⁷ The HA (now Highways England) is responsible (as an agency of the DfT) for the construction and maintenance of England's Strategic Road Network. This Network, which comprises 1,865 miles of Motorways and 2,571 miles of Trunk-A roads, carries 33% of all traffic and 66% of all freight (DfT, 2015), making it the 'economic backbone' of the country (HA, 2012).

The SPV's corporate strategy focuses on commuter safety, together with that of contractors' staff and road workers. Safety is also represented visually on the SPV's and operations and maintenance sub-contractors' websites, with the slogan "Putting safety first" linked in bright red to safety-related performance statistics and publications. As per Schedule 18, 'safe roads' is Alpha's primary aim (followed by 'reliable journeys' and 'informed travelers'), with objectives supporting these aims being translated into four groups that are governed by performance measures and implementation plans. Safety, which is captured under the first group of project objectives, has two performance areas: firstly, to maintain the project road in a safe and serviceable condition; and secondly, response management to accidents, incidents and winter services. We focus on the first performance area as this involves life-cycle management and initiatives for road-users' safety (Figure A). Since achieving road-users' safety is made visible in Schedule 18 as a lever for achieving some of the other major corporate goals of the HA (i.e. sustainability and VFM), safety attains added legitimacy and priority.

Dean (2010) notes that the use of diagrams of power and authority can illuminate the operations of a particular regime. Figure A indicates that the most critical performance issues relate to mitigating accidents, particularly KSIs (Killed or seriously injured), with the SPV's operations and maintenance sub-contractors being required to develop and implement safety-related schemes and action plans (Safety Action Plans). While it might be expected that accident risk mitigation would focus on decreasing the overall number of collisions (including minor casualties), Alpha's payment mechanism (see Section 5.4) includes an exclusive financial (safety-related) incentive relating to reducing KSIs. If the risk mitigation measures are operationalized as strategically-funded schemes for improving road-users' safety, these become Safety Improvement Schemes (Figure A):

The Safety Improvement Schemes come out of the Safety Action Plans. If I drew a hierarchy, essentially you have the Route Safety Plan, which becomes a Safety Action Plan and then a Safety Improvement Scheme. Once an action plan is done, you get your funding, then it becomes an Improvement Scheme. (CEO-SPV)

Figure A KPIs for road-users' safety in Alpha



Source: Schedule 18

However, our findings reveal that the contractors were not incentivized to undertake Safety Improvement Schemes because these were not priority funding for the HA, despite safety being

the government's stated primary objective. Also, while Alpha enables the private sector to fund safety-related schemes, with possible rebates from the HA, the underlying payment mechanisms offered little incentive for the SPV to do this. This was acknowledged by private sector and HA interviewees:

There could be an argument that the idea is to incentivize the DBFO-Co⁸ to undertake their own schemes which they could implement by funding themselves...{T}he contract allows them to do this at their own cost if they believe it will provide them with a long-term benefit. I can't actually see them doing safety schemes because I don't think the incentive is so great. (PO-HA)

These *fields of visibility* indicate how government objectives of road-users' safety are framed and translated as project objectives in Alpha, with the HA (i.e. government) principally defining the contractors' performance measures since the KPIs in Figure A are derived from the HA's corporate aims. Moreover, the most critical performance area for the HA was reducing KSIs on the project road, with minor casualties receiving less attention. Thus, while government promotes road-users' safety as the primary strategic aim for the UK's Strategic Road Network and for Alpha particularly, it appears to be tempered with respect to implementing safety schemes. This raises concerns about UK government outsourcing policies for public services, specifically PFIs, as these could have limited capacities for transferring (and mitigating) operational risks and hence for delivering VFM (Jupe, 2012). It also raises doubts about the effectiveness of performance measures relating to public service delivery given there are gaps (loose coupling) between their underlying aspirations and actual implementation, as illustrated by the HA's restrained motivation and SPV's limited incentivization to fund Safety Improvement Schemes.

We now turn to the remaining three axes of governmentality to further illustrate the regimes of governance and control in Alpha for embedding the government's objective of improving road-users' safety.

5.2 Knowledge

Governing practices have a cognitive element that inform the rationalities, together with the technologies of government (Dean, 2010; Foucault, 1991). "[T]he way we think about exercising authority draws upon the expertise, vocabulary, theories, ideas, philosophies and other forms of knowledge that are given and available to us....[T]hese mentalities are often derived from the human sciences (such as psychology, economics, management [accounting] or medicine)" (Dean, 2010, p. 25). Thus, expertise and specialism (e.g. accounting) augments the knowledge that forms part of governing. As an axis of governmentality, the *knowledge* analytic allows us to focus on the language of discourse, norms and values entailed in the governing practices through which the conduct of the actors (subjects) is (re)organized (Dean, 2010). In applying this dimension to Alpha, we concentrate on the road-users' safety-related performance review practices during the contract's operations and maintenance stages. Performance review in Alpha relied primarily on complex information technology-based (IT) information flows.

Self-reporting by the SPV regarding achievements or performance lags is a key feature in Alpha, with performance reports being produced monthly, quarterly and annually. Schedule 18 establishes monthly reports as the primary performance assessment mechanism, with actual

⁸ DBFO (Design, Build, Finance and Operate) is a UK term for PFI. Some interviewees used the term 'DBFO-Co' when referring to the SPV.

activity being color coded against 250-300 targets. The SPV and sub-contractors produce performance dashboards containing graphical and bulleted information showing performance against KPIs on a month-by-month rolling basis, together with three-month projections. For example, relating to safety, the dashboards report numbers and trends in KSIs. Moreover, the SPV must maintain a register of Remedial Action Plans, with progress on remedial actions and the addition of new plans being important agenda items at the monthly management meetings.

Information flows are an essential MCS component, particularly in inter-organizational settings (Tomkins, 2001). In Alpha, the performance management plans are linked with information management plans and the SPV is required to maintain sophisticated IT-based information flows that can produce usable performance information:

What we really want from them is that they gather the right intelligence, they come up with the right interventions, which deliver good value for money. (CM-HA)

The primary KPIs for road-users' safety relate to the number and trend of KSI accidents on the project road (Figure A), with the Safety Performance Adjustment (SPA) (payment mechanism) (Figure D) feeding into this indicator as it involves comparison with other (comparator) roads. Under the contract, the SPV maintains a live interface ('Knowledge Management Center') as the focal point of information management across the project, with activities including the monitoring of (safety-related) performance information and live feeds (e.g. from cameras). Hence, the Knowledge Management Center's role is to collect and communicate information to appropriate contractor and HA personnel:

We have real-life reporting and real-life dashboards that go with this. We have a live dashboard to show how that is being done and which ones are being addressed. This is how performance is managed. (CEO-SPV)

Moreover, under Alpha's information management plan, the SPV maintains an integrated IT interface ('One Place System') which provides visibility and control of processes and procedures to relevant parties, including the identification of activities affecting specific KPIs. The Knowledge Management Center is an integral component of the One Place System, with these systems facilitating informed decision making. As provision of public benefits is a primary objective of PFIs (Brinkerhoff and Brinkerhoff, 2011), one would expect that the commuting public to also have access to key performance information within the One Place System (Shaoul *et al.*, 2012; Florio, 2014). In this regard, the contract requires the SPV to ensure efficient transmission of incidents and weather-related traffic disruption data from the Knowledge Management Center to HA's traffic management systems called Regional Control Centers. Moreover, information from customer surveys conducted at the call centers may be transmitted to the Knowledge Management Center.

The HA is allowed continuous access to the Open Place System and Knowledge Management Center, illustrating its self-identification as an agent for road users. Consequently, while the Knowledge Management Center and One Place System offer self-governance opportunities for the SPV and sub-contractors by allowing them to review the impact of their (remedial) interventions, as the HA can monitor information hubs which are *internal* to the contractors' decision-making these may serve as *panoptical* mechanisms for the HA. Thus, the freedom for the SPV (and subcontractors) to self-govern could be undermined (Eckersley *et al.*, 2014).

The idea of a panopticon (a metaphor embraced by Foucault (1977) for discipline and control) is that if people believe they might be under surveillance, they would discipline themselves by conforming to desired norms (Eckersley *et al.*, 2014). Within Alpha, accounting (numbers) is integrally entwined in these information systems through the *language* for inputs and outputs (e.g. trend in accidents). Accordingly, accounting enables the HA to govern the SPV's (safety) performance, by instituting standards, rules and guidelines that establish norms (in the form of KPIs) and secure compliance (Walker, 2016). However, this implies that despite PFI being a network (partnership) form of organization where one would expect relational and flexible contracting to enable contractor innovation and inter-party negotiations (English and Baxter, 2010), Alpha's *knowledge* analytic reveals a non-democratic, hierarchical (panoptical) approach.

The monthly management meetings also focus on areas where performance targets are not achieved, with little opportunity for discussing private sector innovation, despite this being espoused as a PFI benefit (Rangel and Galande, 2010). For example, the agenda for these meetings includes:

- areas where performance targets have not been achieved;
- areas where either party believes performance targets are unlikely to be achieved;
- areas identified in the monthly report where performance is falling below the Agreement's required standards; and
- the Performance (penalty) Point Events register (see Section 5.4).

Overall, monthly management meeting agenda comprises nine items, of which eight 'question' performance and only one addresses (safety) proposals. This performance measurement approach is amplified across Alpha's MCS regime. For instance, an analysis of the Performance Point Event register reveals that there are only provisions for issuing points to the SPV for not meeting certain performance criteria, not for rewarding acceptable performance. Moreover, the monthly management meetings tend to be bureaucratic rather than designed to facilitate constructive feedback flows:

Do they believe that they are getting the best service? I feel that the answer is 'no'. But maybe they are pre-conditioned to say no. Do we believe that we are trying to give them the best? Yeah! Do we believe we are trying to give them value? Yeah! Do we believe we are on the right side of doing the best we can to make sure this works? Yes! On that basis, it is very difficult to bridge the two. (CEO-SPV)

Relatedly, the CM-HA commented:

If you look at the agenda of the monthly management meeting, the way it is described in the contract is about how are we going to beat them with a stick for the things that they are doing wrong. There is nothing positive in it. (CM-HA)

The HA uses a scorecard ('Proactive Management Review' (PMR)) (Figure D) for measuring the SPV's performance annually. The PMR performance areas do not address safety-related issues specifically (e.g. KSIs). Instead, they are divided into four performance-based attributes, with each measured according to certain indicators. The four attributes are the contractor's competence in: (i) understanding the project needs; (ii) understanding the HA's needs; (iii) pro-activeness in proposing solutions; and (iv) demonstrating added value. However, we found disagreement about how the PMR was operating, especially concerning its subjectivity:

Off the record, they haven't received PMR bonus as yet. Payment against PMR starts at score [y]. At the moment they have been scoring less than [y]. (PM-HA)

Contractor discontent was clearly evident:

The score this year was [x] out of [y], that's like 4 out of 10. So is the contract which you are seeing on the ground is a 4 out of 10 contract? Clearly it is not. (CEO-SPV)

The inadequacy of the PMR financial incentives was also raised:

I think the Proactive Management Review could be better incentivized. If there was an incentivization for say £10 million then it might be worth pushing innovation and pushing excellence. Then they would genuinely get some value out of it. (CEO-SPV)

These issues highlight the challenges and contradictions about how performance for qualitative areas (e.g. impact of safety schemes) is measured and used for allocating incentives. This illustrates a limitation of accounting as numbers used or produced by (accounting) control regimes may not be trusted as *scientific*; rather these could be (at times) judgmental and subjective (Broadbent *et al.*, 2008; Spence and Rinaldi, 2014).

Besides the regular performance reporting practices discussed above, the HA audit safety-related interventions by contractors (Figure A) again depict its self-identification as agents of road users and therefore could dominate and influence SPV designs and interventions. However, given the SPV must satisfy the HA as the client in order to safeguard its commercial interests, it takes safety audits seriously:

Although there are no financial incentives attached for doing safety audits, there is reputational incentive.... We want to be known as the safest network for the Agency. (CEO-SPV)

The perspectives presented under the *knowledge* dimension of governmentality in Alpha demonstrate that IT, together with generated information flows, is fundamental for MCS in complex inter-organizational settings. However, from a governmentality perspective, (accounting-based) knowledge applied for control and governance might not always be perceived as precise, particularly given the separate operating logics of network members (Pettersen, 2015). Organizational operating logics may be understood as the 'rules of games' for meeting objectives and solving problems (Billis, 2010) or over-arching principles for interpreting organizational reality, what constitutes appropriate behavior and how to succeed (Bartocci *et al.*, 2019).

Particularly for PFI organizations, whilst important, developing mutual understanding about the interests (logics) of the actors coming together as partners is challenging (Brinkerhoff and Brinkerhoff, 2011). In PFIs, as observed from the contentions under Alpha's *knowledge* analytic, the procuring authority's operating logics which are dominated by public values (Koppenjan *et al.*, 2008) interact with (and dominate) the private sector's commercial logics. Multiple operating logics in PFIs could also exert competing accountability pressures, particularly for the private sector (Gebreiter and Hidayah, 2019). While the procuring authority is ultimately accountable to

the public, the contractors are accountable to the client (government) as well as their shareholders and financiers (Demirag *et al.*, 2012):

I think we always have had good relations with the banks. At one point, we went over 2000 performance points and we had to write a report.... (CEO-SPV)

Therefore, PFI involves multiple operating logics that could challenge the reliance and usefulness of accounting controls for producing performance measures that are deemed legitimate and useful for feedback by the partners. This is consistent with previous PFI literature that contends that the contracting partners could have different notions about what constitutes VFM (Demirag and Khadaroo, 2008), as we find in Alpha:

When you said there are too many [performance measures], there may well be. But as I said to the Treasury, if that is the measure of a good performing contract then what you are paying for, you are getting. What it [MCS] doesn't do is to say what extra we are to do, which then would come into this definition of value for money, which in my personal opinion is not possible to get a rational view about. (CEO-SPV)

We now consider the formation of the *identities* and *techniques and practices* analytics in Alpha.

5.3 Identities

Accounting (i.e., MCS) can be instrumental in identity formation as through the processes of measurement, reporting and making (subjects) visible, it impacts on subjects and the relationships they have with themselves and the governing authorities (Walker, 2016; Bujaki *et al.*, 2017). Understanding the identity created for the SPV is important given PFI policy discourse contends that the private sector can bring improved services, innovation and hence VFM (Shaoul *et al.*, 2007; Rangel and Gelande, 2010). Thus, through the *identities* analytic, we are seeking to explore the SPV's roles in terms of its standing with respect to the capacities (agencies) assigned to it and how it is ranked or prioritized with respect to the client (HA), users and other stakeholders, together with how the MCS influence the SPV's conduct, capacities and aspirations with respect to it achieving the project's road-users' safety objectives.

In the preceding *knowledge* analytic, we demonstrated that a primary function of Alpha's MCS is to safeguard and manage the underlying public services. Thus, as would be expected, the commuting public are recognized as SPV's primary stakeholder:

...delivery of high quality...service that puts customers first. (Schedule 18)

However, despite the SPV being charged with this, authority for defining the project's objectives and reviewing performance lies with the Secretary of State for Transport through the HA. Moreover, whilst the contract requires the SPV to engage with stakeholders, including commuters, for learning and sharing best practices, the SPV is enforced rather than encouraged or incentivized to undertake such consultations as these are measured as performance indicators (Figure D) (with the learning or feedback from these activities being difficult to implement as discussed further below):

The DBFO-Co will listen to what they tell the DBFO-Co, then change and improve the DBFO-Co's approach accordingly. (Schedule 18)

Besides survey-based feedback (see Section 5.2), the SPV can consult with the public via thematic conferences:

I have a conference each year and the theme of last year's was 'service excellence within a changing organization and a changing environment'. What we have to do is to prove, whether it be safety, congestion, investment, asset-management or other issues, that we are number one in terms of performance within the Agency. (CEO-SPV)

Although, the SPV believed such activities had little effect on achieving optimal safety outcomes as it did not have authority to operate or manage traffic:

Our job is to manage the network from the road-users' perspective but we don't have much authority because we are not the operators of the network, the Highways Agency is. The most important thing is we try to educate them [public] as much as possible about what we do and how we do it. And a lot of this has to do with the government and the Highways Agency.... (CEO-SPV)

HA interviewees also acknowledged that the SPV (alone) had limited influence on road-users' safety:

In case of safety...what the DBFO-Co controls is the engineering of the network. It doesn't control drivers' behavior, it doesn't control enforcement, it doesn't control the education of the road users. (CM-HA)

This is compounded by the SPV's contention the HA could veto (and hence restrain) SPV safety proposals:

We wanted to put a VMS sign [variable message sign] to tell the travelling public that there was a commissioning going on at the [xyz] tunnel. And the Agency said, you are not putting those up because they are not approved. I believe it would have helped people drive better through the works but we weren't allowed to do it. (CEO-SPV)

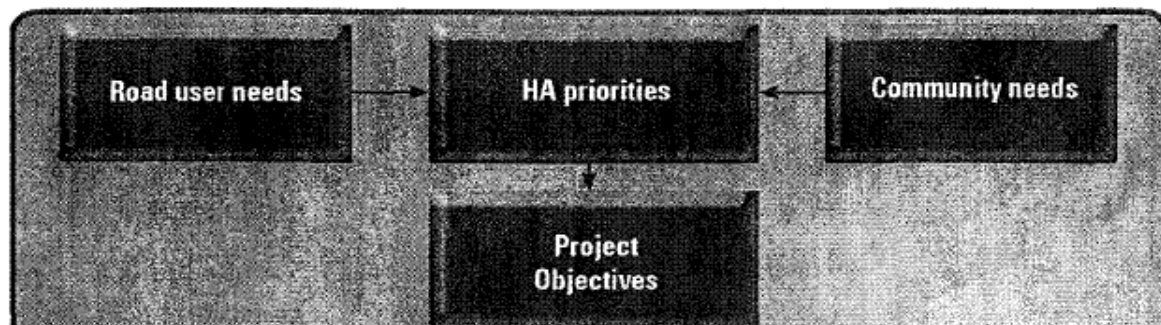
Previous studies about UK PFI-road projects report similar difficulties for contractors in introducing change during operations and maintenance stages as the HA typically adheres to approved designs and operational codes, with approving change being time consuming as proposals must pass several levels of screening (Edwards *et al.*, 2004). Moreover, our HA respondents emphasized that consideration of the safety implications of SPV would be paramount:

...if you put some road signs or markings, then someone will go along and drive through it, walk through it, look at it... and see if that scheme introduces any safety issues. So you can end up in things like, well, that sign is in middle of the foot-path. (CM-HA)

Such conflicting views on what constitutes a ‘safety-measure’ intervention substantiate the arguments developed in the preceding *knowledge* analytic that different operating logics within network forms of organizations can make defining processes and outcomes difficult, leading to increased tensions and reduced MCS effectiveness of the MCS (Pettersen, 2015).

Although the SPV is charged with achieving the project’s safety objectives and the travelling public is its primary stakeholder, our findings reveal that the government represented by the HA is *the* most important stakeholder as the control and accountability of the SPV is directed to the HA rather than the travelling public. Figure B depicts the self-identification of the HA as an agent of the public.

Figure B Self-identification of the HA as the public’s agent



Note: This partial reproduction of the Performance Management Framework from Schedule 18 depicts that the HA is *self-identified* in the contract as an agent of the (commuting) public.

Such contractual arrangements are a characteristic of UK PFIs (Steijn *et al.*, 2011), with Figure C illustrating Alpha’s strong contract-based governmentality and the HA’s (i.e. government’s) authority to influence the SPV’s activities relating to safety and other project objectives. This hierarchy is enforced through contract clauses requiring the SPV to take ownership of performance by employing individual and team-level performance measures and incentives. Indeed, such cascading of HA’s corporate goals down to the SPV is described in the contract as the foremost ‘critical success factor’, with the definition of ‘success’ providing a (de facto) authority to government:

The DBFO-Co will develop and deliver a high-quality service to meet and exceed the expectations of the Secretary of State and stakeholders. (Schedule 18)

Figure C Artefact of governmentality in Alpha



Source: Adapted from the Performance Management Framework in Schedule 18

In addition to design and construction, innovation in maintenance methods is one of the *desirable* outcomes in Alpha's Business Case. However, given the HA's propensity to adhere strictly to contractual controls, this potentially diminishes the espoused benefits of private sector innovation:

It is holding the DBFO-Co to account for what they are required to do under the contract. The core thing is that the base contractual requirements of managing the network and maintenance have to be met. (PO-HA)

Furthermore, the HA's power to shape the SPV's performance and innovation through performance monitoring contradicts the neoliberal ethos of the state's diminished role in public service delivery (Maran *et al.*, 2016).

The identities created in Alpha indicate that the SPV's roles are sometimes mutually conflicting and constraining. Despite the SPV being charged with achieving the project's road-users' safety objectives, authority for defining these and reviewing performance lies with the Secretary of State for Transport through the HA, thus subjugating the SPV to the HA and the Secretary of State. Also, consistent with the *knowledge* analytic, the *identities* analytic reveals that Alpha constrains (rather than facilitates) opportunities for drawing on private sector innovation. This could limit the contract's potential if the HA and the SPV do not work as partnering organizations to manage risks and improve road-users' safety (Klijn and Koppenjan, 2016). However, whilst acknowledging the potential negative consequences for VFM, a more flexible approach to contract management might facilitate trust building and engender a *quid pro quo* relationship (English and Baxter, 2010; Brinkerhoff and Brinkerhoff, 2011; Burke and Demirag, 2017).

5.4 Techniques and practices

Intervention is an important part of governance and, without the technical means of intervention, intended outcomes will not be achieved (Rose and Miller, 1992; Spence and Rinaldi, 2014). We apply the *techniques and practices* analytic to better understand how the accounting-based incentive regimes deployed in Alpha shape the SPV's performance, particularly for delivering safety-related project objectives (Figure A). Additionally, deployment of (accounting-based) technical means of governance could limit what can be achieved and cause dissonance among partnering organizations (Speklé and Verbeeten, 2014; Ahmad *et al.*, 2018). Therefore, we also consider the unintended consequences of the incentive regimes operationalized in Alpha for road-users' safety.

The incentive regimes deployed in Alpha for controlling the SPV's performance are financial and non-financial (Figure D). The four non-financial incentives (Figure D) are activated when there are performance failures by the SPV. We found that the HA widely uses performance points, with their accumulation leading to increased compliance costs for the SPV (at 500 points) or a loss of bonuses (at 600 points). Moreover, if under-performance or an unrectified breach during the operations and maintenance stage leads to the accumulation of more than 3,500 points, this could result in contract termination. However, termination must be considered in light of the availability of alternative delivery mechanisms (NAO, 2006). As the HA has issued performance points since contract inception, the SPV is mindful of this. In terms of the effectiveness of performance points contributing to the achievement of the contract's objectives, the regime is believed to incentivize day-to-day operational targets rather long-run outcomes. Both parties acknowledged that performance points influence contractor operational priorities:

If there has been a breach but we have some mitigation against it then the points that are attributed to that breach come down. But when there is no mitigation then we get the full points. If we didn't have a Safety Action Plan then it would come with a whole lot of

performance points. Your incentivization is actually to keep all of your points down. (CEO-SPV)

The HA concurred:

I think when you look at the performance regime it is about breach of obligation. What you find is that there are certain obligations which are defined at quite a high level, at an outcome level and it is quite difficult for them to breach those. And there are certain obligations which are defined at quite a detailed input level, and it is quite easy for them to accumulate performance points against those. I think there is a question about whether the performance regime tends to be more effective in dealing with operational and day-to-day things than dealing with long-term strategic issues. But having said all that, it does incentivize them, it puts these issues on their radar. (CM-HA)

Thus, the performance points regime acts as a technology of government for achieving, or at least prioritizing, day-to-day operational tasks. However, as revealed under the *knowledge* analytic, the contract triggers for issuing performance points discourage private sector innovation, which is often cited as justification for PFI, as points are issued for breaches with there being no potential for rewards or bonuses.

As a further controlling accounting technology, Alpha deploys financial incentives. Figure D indicates six performance-based payment mechanisms, with only the SPA (shaded row in the payment mechanism table in Figure D) closely representing the KPIs depicted in Figure A. Therefore, this is our focus of analysis. Of the other five mechanisms, three (lane availability, route performance and unplanned event management) address the project objective of reducing congestion, one relates to asset maintenance (road condition) and the PMR bonus is associated with the annual PMR scorecard (*knowledge* analytic). From our document analysis, it is evident that Alpha's performance-based payment mechanisms are more extensive than contemporary PFI-road projects, particularly in the UK. This was confirmed by our interviewees:

In payment mechanism terms Alpha has got real financial teeth. There are payment mechanism adjustments that can be way up to £5-6 million a year. (FD-SPV)

Furthermore, as mentioned previously (see Sections 1 and 2), Alpha's MCS regimes are more elaborate than preceding PFI-road contracts with there being greater focus on the MCS measuring performance rather than prescribing outputs:

[T]he performance requirements in this contract were much harder. So those people were actually in a mind-set of being told what to do while in this contract they had to self-manage themselves through a quality management system.... On [Alpha] what you have got is a much more complex [MCS] mechanism that seeks to align the interest the DBFO-Co against all the Agency's objectives. (CM-HA)

We accept that performance related to lane availability, road condition, route performance and unplanned event management (Figure D) also (indirectly) affect road-users' safety objectives,

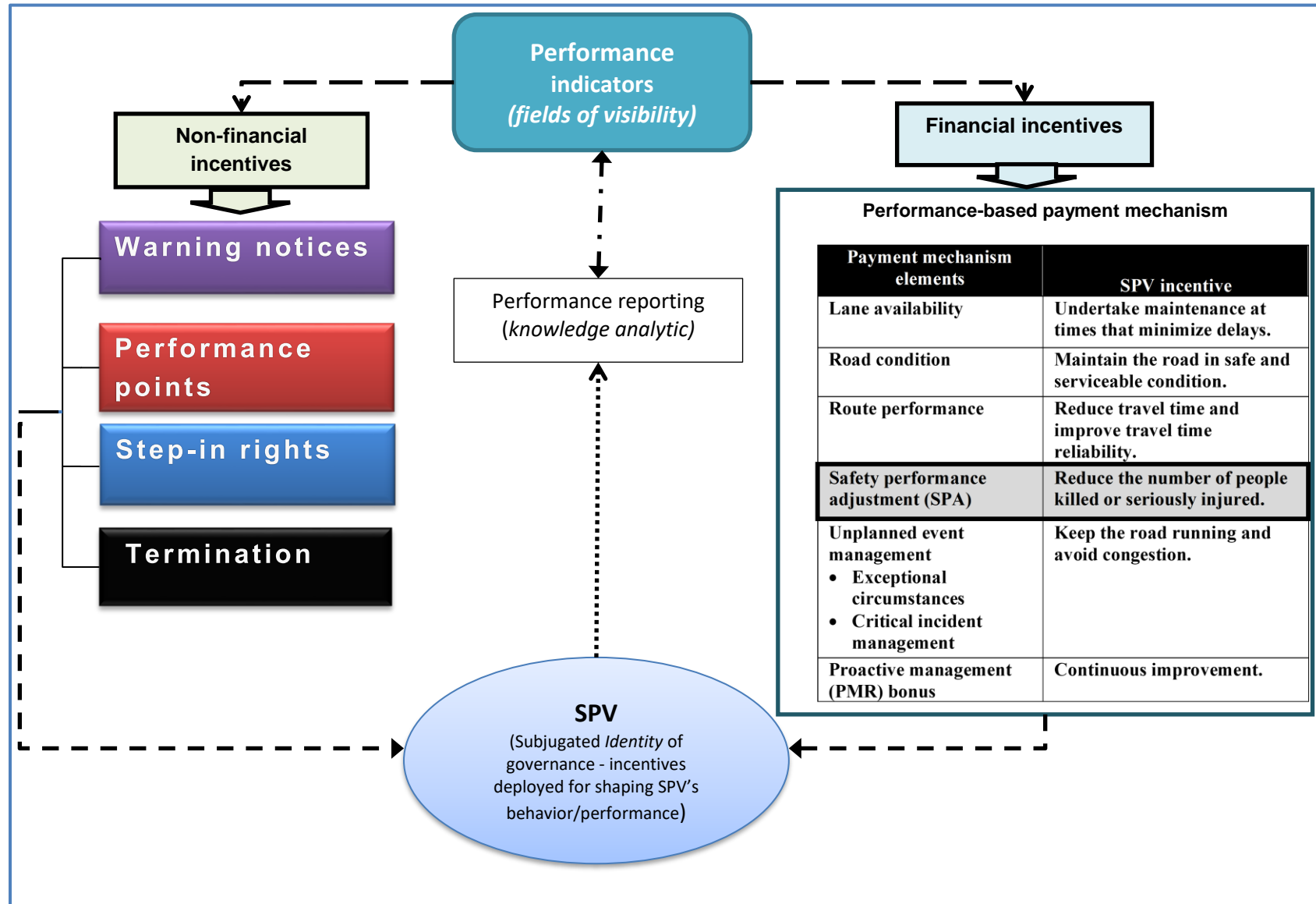
together with other HA priorities⁹. However, these areas are measured by KPIs indirectly related to safety, addressing asset management-related measures such as: managing roadworks, monitoring journey times and delays, road-surface maintenance (e.g. winter arrangements) and response to defects (e.g. lighting and pollutant levels). Whilst acknowledging that the performance elements of the payment mechanisms align with the HA's corporate objectives, since this paper explores how accounting becomes implicated in complex neoliberal organizations as regimes of governing practices (see Section 1), we now consider road-users' safety-related KPIs and the underlying control regimes (i.e. SPA and PMR) further.

Sargiacomo (2008, p. 687) argues that disciplinary mechanisms for shaping the conduct of subjects should comprise punishment and gratification as they can be deployed to “align, allure and even seduce” the conduct of the subjects. Alpha's financial incentives have features of punishment (i.e. payment deductions) and rewards (i.e. bonuses). The SPA (Figure D), which can be an annual deduction or a bonus, is capped at £1 million a year¹⁰.

⁹ At the time of writing, the route performance payment incentive was not operationalised due to technical difficulties related to acquiring the underlying data.

¹⁰ This amount was revealed by the interviewees *by way of generosity*, reflecting the rapport developed while undertaking the research (see Section 4.2); however, none of the interviewees was able to explain the basis for this amount. A financial analysis of the payment mechanisms was not possible as most of the financial information in the case documents was redacted for commercial reasons.

Figure D Accounting-based incentive regimes in Alpha



With respect to the objective of improving road-users' safety by reducing the number of serious accidents, the SPA was the only (financial) incentive operationalized through Alpha's payment mechanisms. This adjustment is not specifically linked to the safety-related KPIs shown in Figure A, being associated with the overall outcome (i.e. decrease in KSIs) and measured against KSI trends on comparable motorways and Trunk-A roads. We found that since the commencement of operations and maintenance services, while the number of KSIs on Alpha has declined, the SPA has remained a deduction, effectively *but unintendedly* penalizing the SPV:

The SPA has been negative each year but this does not imply that the DBFO-Co has been underperforming against the safety standards. The reason why the adjustments have been negative is because it is measured against comparator roads. So, if the DBFO-Co in a year achieves a reduction [in KSIs] but the reduction was greater on the comparator road, then that may not necessarily mean that they generate a bonus. (PO-HA)

The underlying SPA formula compares the relative decline in KSI accidents on Alpha with comparator roads. This has resulted in persistent reductions (penalties) for the SPV as the percentage decline in Alpha's KSIs is lower than on comparator roads; although the SPV has questioned the validity of the comparative data, expressing dissatisfaction with the SPA calculation:

...[W]e have a formula that was based upon 20[X1] – 20[X5] data. In doing that and the way it is structured automatically gave us a loss. So we have a cap of £1.0 million and that cap was a cut in year 1, 2, 3, and 4, because in our view the formula was wrong. So there was no incentivization....This shouldn't have been base-lined for 20X1-20X5, it should have been base-lined for 20[Y1] - 20[Y5] which is when we started. (CEO-SPV)

The HA acknowledged that there were technical issues related to the SPA's design and operationalization:

Did we really want deductions in the first few years on safety mechanism or no we didn't? We didn't test the mechanism enough to get it right in the first few years. (CM-HA)

At the time of this research, the HA and SPV were considering reviewing the SPA to make it more acceptable to all parties whilst enabling it to be an effective incentive-based governing technology. The HA accepted that Alpha's accounting regimes were supposed to incentivize the contractors to perform better:

I mean managing [Alpha] is a big job and the reason why we are looking at strategic change to the pay-mech is to give them incentives and bonus to go and do better things about safety and all other things. (PO-HA)

However, making contractual changes is cumbersome and time consuming, involving engagement with major stakeholders including the financiers:

Any review of SAP [Safety Action Plans], I suspect that the banks are going to be involved because it is going to affect the payment that goes to the DBFO-Co. For any change they have

to have lenders' consent. ... [I]f the change is going to have a significant effect on payments then banks might even send their financial people. (PO-HA)

Relatedly, a SPV respondent not only concurred but was critical about the inflexibility of UK PFIs:

And I have seen this not just on this project but on hospital projects as well where the consent process is nothing else but very time-consuming and is normally quite expensive because its time consuming. And its lawyers and accountants and senior commercial officers whose time is being spent and there is very little to show at the end of it.... (FD-SPV)

The perceived difficulties in changing (tight) contractual terms have two implications for this paper. Firstly, and related to the *identities* analytic discussion, whilst the SPV is responsible for achieving the project's road-users' safety objectives and the commuting public is its primary stakeholder, the contract exerts multiple accountability logics on the SPV such that it has to respond to the client's (HA) performance requirements and be cognizant of the financiers' commercial interests (Demirag *et al.*, 2012; Shaoul *et al.*, 2012). Secondly, as PFI contracts have now operated for a reasonable period, there is a growing recognition that project outcomes may be enhanced by developing collaborative approaches to governance rather than tight (arms-length) arrangements, especially given the long-term and uncertain nature of PFI contracts (Chung, 2016; Ahmad *et al.*, 2018).

When interviewees were asked about the SPA's effectiveness as a driver for delivering safety-related action plans and improvement schemes (Figure A), it was recognized that safety is a long-term objective requiring strategic as well as capital-intensive planning and initiatives. As discussed under *fields of visibility* (see Section 5.1), the HA or SPV may fund safety improvements schemes. However, as a SPV-proposed safety scheme must meet the same assessment criteria deployed by the HA for evaluating business proposals, there are no prioritized funding opportunities for safety schemes. Moreover, we found clauses in the PMR (Figure D) discouraging the SPV from seeking funding from the HA for improvement schemes. For example, one of the PMR's scoring criteria requires the SPV to propose solutions and plans "*often without calling on additional funding from the HA*"; while another PMR performance parameter emphasizes that the SPV should "*understand and work within the HA's budget constraints*". It is unlikely that the SPV will self-fund such schemes as the only (directly-related) financial incentive available for safety outcomes is the SPA, which lacks proper incentivization given its calculation has resulted in deductions and the bonus is capped at £1 million:

There aren't any quick fixes really on safety performance, it is a long-term trend that you are trying to influence. Now there are issues with the precise way the safety performance measurement is calculated. (CM-HA)

This is further evidenced by government's risk-management perspective:

The influences on these performance elements [safety] is much wider and that is why their payment incentives are capped because there will be a high-risk premium if we didn't cap them. (CM-HA)

Unsurprisingly, the private sector has a different perspective on capping the SPA. While for government it is a risk-management strategy, particularly where it is perceived that the underlying

risk cannot be fully influenced by the contractors, the SPV considered it a *trade-off* against their incentivization for addressing long-term strategic (safety) objectives:

Particularly in case of Safety Action Plans, there is no financial incentive The plan has been produced each year by the sub-contractors, but I think the money is so small I wouldn't be able to say whether they [the HA] have got their value for money through that. (CEO-SPV)

Further, our analysis of the PMR framework as articulated in Schedule 18 and other relevant schedules reveals that it is a tool (scorecard) that attempts to quantify and make calculable UK government's rationalities for engaging with the private sector (SPV in our case) as a *better* provider of public services. The PMR assigns broad competence-based attributes to the SPV articulated as four broad performance areas, with each performance area supported by a set of performance measures based on a Likert-type rating (scoring) scale (see Section 5.2). However, despite being a multi-dimensional performance measurement tool, we find, consistent with our *knowledge* analytic discussion (see Section 5.2), conflicting weights (ranks) assigned to different stakeholders. While some PMR performance measures score the SPV on the basis of its engagement with road users and other stakeholders and responding to their needs, greater emphasis and hence scoring is placed upon aligning the SPV's functions to the HA's goals. Thus, the HA assumes the identity of an agent for road users and other stakeholders:

Schedule 18 [...] requires the Operator to assist DBFO-Co to achieve the Secretary of State's objectives ... through continuous improvement and the generation of realistic and implementable ideas, proposals and schemes.... If DBFO-Co is successful in meeting its obligations under the DBFO Contract and not otherwise performing badly under the Contract, a bonus payment will be payable by the Secretary of State to DBFO-Co. (Schedule 25)

As discussed under *fields of visibility* (see Section 5.1), the SPV is obligated under the contract to deliver continuous improvement by developing and initiating improvement schemes for the key project objectives in Alpha, including safety. Two of the PMR's performance attributes, 'proposing solutions' and 'demonstrating added value' (see Section 5.2), place emphasis on the SPV to work continuously towards this end; albeit, the highest scores against these performance areas demand the SPV to self-fund such schemes.

Consistent with Chang (2009) and Speklé and Verbeeten (2014), the conflicting weights and subjectivity embedded in performance measurement systems decouple them from their underlying strategic management objectives:

I don't think we have got a mechanism that properly focuses on the most important issues. It is very driven by how an obligation is defined, how significant a performance-point risk is, not how important that obligation is. And then some of the detail things... mixes the cause and effect, which isn't really very helpful. It should have been clearer as to whether we are more worried about the cause or are worried about the potential effect. (CM-HA)

Similar perceptions prevailed about the PMR within the SPV:

Once a year we score against this matrix. If you look at it, it could become a vehicle for measuring excellence. However, if you look at the description under each of these boxes, they

are quite subjective in their own right.... So there is a lot of interpretation that needs to be put into this. (CEO-SPV)

However, while stringent controls may be necessary to reduce the risk of excessive SPV profits, PFI's contractual nature should not necessarily inhibit relationship development (e.g. if there is some leeway with penalties or the contractor receives a contribution towards introducing safety initiatives) (Reeves, 2008) and trust-based relationships with formal and informal structures can enhance stakeholder relationships (Brinkerhoff and Brinkerhoff, 2011).

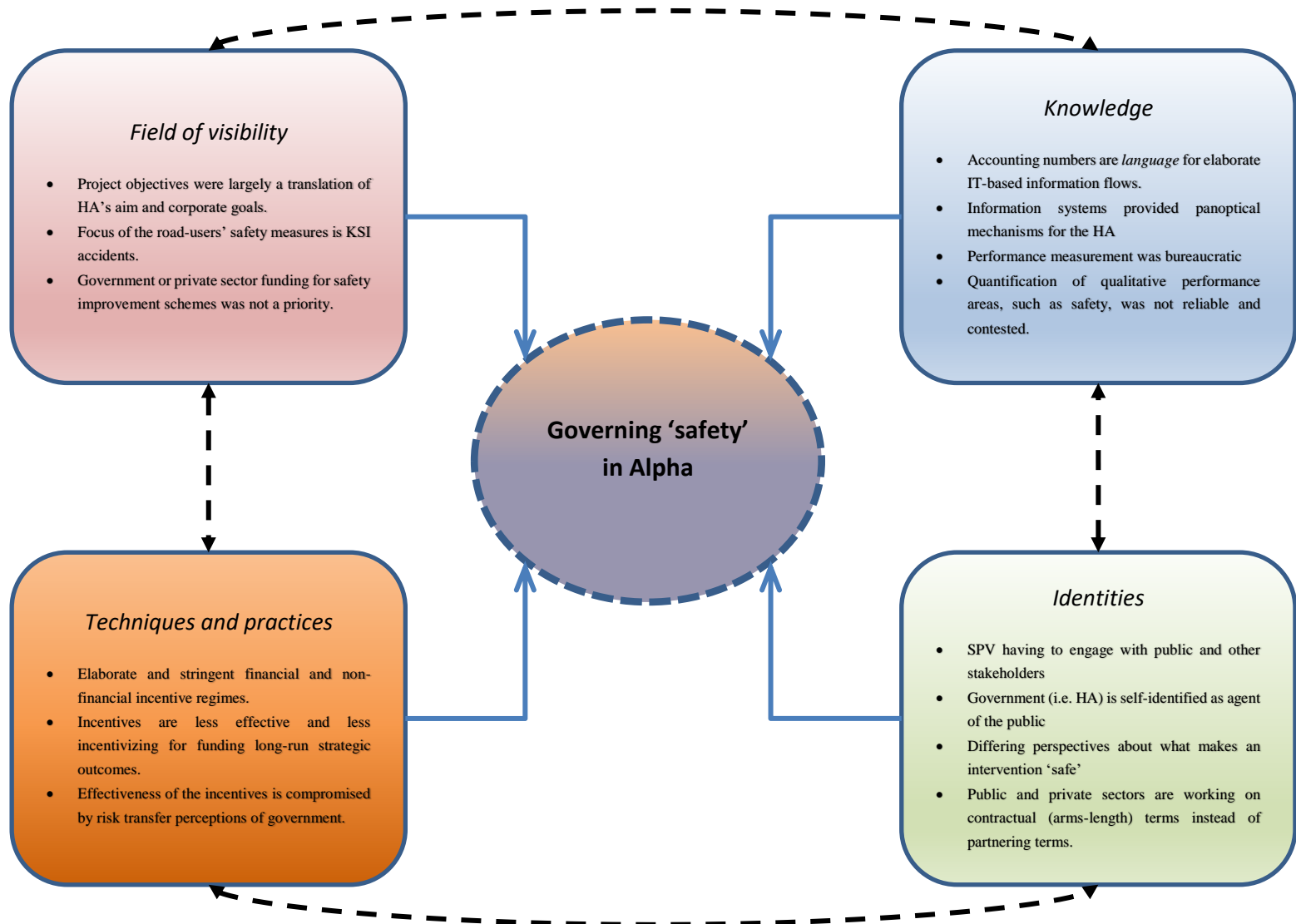
6. Discussion and conclusion

This paper analyzes the accounting-based MCS regimes in a UK PFI-road project as the means for government to operationalize commuters' safety-related objectives in the project road. It explores how accounting becomes implicated in complex neoliberal organizations as regimes of governing practices rather than critiquing UK government's PFI or transport sector policy objectives. To address this, we examined road-users' safety-related KPIs and the underlying control regimes in Alpha.

This research provides significant theoretically-informed insights about how government uses accounting to control public service delivery that is outsourced to private contractors, within complex organizational PPP/PFI arrangements. Specifically, we combine governmentality theory and Dean's (2009) analytics of government to explore how UK governments control transport policies through PFIs. Whilst Spence and Rinaldi (2014) also apply Dean's framework, they examine the introduction of sustainability accounting in a supply chain organisation, focusing on how senior managers frame and use sustainability accounting for disciplinary purposes albeit supposedly to further social and environmental goals. In contrast, based upon an analysis of UK government PFI policy and case study-specific documents, together with interviews and observations, we consider how control mechanisms and their performance measures work in a PPP context where there is significant contractual misalignment on how to improve road safety and accidents. Thus, whereas Spence and Rinaldi (and Frame and Bebbington (2012)) concentrate upon traditional top-down governmentality regimes, in Alpha regimes of practices are deployed to shape the decision and actions of organizations as 'collectives' (Boomsma and O'Dwyer, 2019). This allowed us to reveal that partners' different operating logics can have a constitutive impact on governmentality.

Our primary interest for investigating the control regimes in Alpha was to understand their effect as technologies of government on the service-providing organization (i.e. the SPV). From governmentality and management accounting research viewpoints, this study is important as it furthers our understanding of how: controlling accounting regimes are utilized as technologies of government by governing authorities to formulate and implement strategic goals (Frame and Bebbington, 2012; Narayan and Stittle, 2018); and the regimes constitute the local actors as self-governing subjects (Dean, 2010), with the implications for achieving (neoliberal) government objectives. Moreover, from an accounting perspective, it makes an important contribution as the limited prior research on the management of operational PFI contracts does not provide a general theoretical framework that addresses the controversial accounting tools/concepts raised in PFI contracts (Shaoul *et al.*, 2007; Andon, 2012; Ahmad *et al.*, 2018).

Figure E Governmentality of road-users' safety in Alpha



In this regard, the analytics of governmentality presented in Figure E, which enables the problematization and exploration of the MCS deployed in Alpha, raises doubts about the linkages between political intent and localized practices. At the macro-level (UK government policy discourse), road-users' safety appears paramount. However, we find in Alpha that safety, as a long-term objective, is not supported by the deployed MCS, with the economic priority for improving road-users' safety diminishing at the project level. Alpha's project objectives and their KPIs are shaped by the HA's corporate goals, with the funding of safety-related schemes proposed by the contractors not being prioritized by either party. For Alpha, the governance focus on road-users' safety remains improving the trend and numbers of KSIs, which are measured by elaborate and IT-supported information flows, with self-reporting by the SPV being a key feature. However, the *knowledge* analytic (see Section 5.2) reveals that how the accounting numbers are used to manage performance in Alpha is contested, leading to calls for elements of the MCS, such as the SPA, to be revised. Moreover, as the numbers are employed in a diagnostic manner for performance monitoring, this constrains opportunities for positive feedback for the contractors and potentially hinders incentives and opportunities for private sector innovation. Similar constraining effects of the MCS were found under the *identities* analytic (see Section 5.3), with the HA (public sector) and the SPV (private sector) appearing not to be working on a relational basis. Instead, although the SPV is responsible for accomplishing Alpha's road-users' safety objectives, it is subjugated to the HA, which is established in the contract as the most powerful and influential stakeholder and as a self-identified agent for the public. Likewise, our *techniques and practices* analytic (see Section 5.4) reveals that Alpha's incentive regimes do not incentivize the SPV to initiate long-run safety-related improvement schemes. In particular, the SPA is complex and produces unintended deductions. This supports an important, albeit overlooked, aspect of governmentality that, once rendered calculable, it is difficult for organizations to install monitoring, reporting and recording systems that are consistent and cumulative over time (McKinlay *et al.*, 2010), with the political rationalities and supporting regimes of practices potentially causing unintended consequences (Diefenbach, 2009; Speklé and Verbeeten, 2014).

An emerging argument is that, although PFI in the UK has been politically supported and sustained by successive governments under the banner of public private 'partnerships', Alpha's MCS are not facilitating real partnership working between the HA and the SPV. Thus, as Hodge and Greve (2018) posit, whilst tight governance is needed to protect the public interest, weaker (partnering/relational) governance is also required to enable risk-taking and innovation. Our findings suggest government agencies and private sector managers have a different perspective as to how accounting information should contribute to performance measures, with the former viewing accounting information primarily for bureaucratic control purposes for implementing government policies. This has important policy and practice implications given the evidence that poor communication and collaboration during the operational stages has contributed to the failure of certain UK government outsourcing contracts (NAO, 2009; Demirag, 2018). Whilst acknowledging the need for control, especially during contract procurement and early implementation phases, as a contract evolves during implementation and trust is developed (e.g. if performance targets are met or the SPV proposes innovative solutions to problems), a shift away from formal control to more flexible informal control may be beneficial (Burke and Demirag, 2017; Abdullah and Khadaroo, 2020).

Furthermore, our findings imply a detachment between the underlying political rhetoric and its operationalisation (Maran *et al.*, 2016), with the HA promoting safety-related objectives externally whilst simultaneously working within its own budgetary objectives and (largely) requiring the SPV to fund safety-related improvements. Whilst it is understandable that our SPV

interviewees would contend that more autonomy and greater financial incentives from the HA would enhance performance, the HA's stance is equally comprehensible given recent PFI failures. Notwithstanding this, in our opinion, how MCS are designed and deployed is fundamental to the achievement (or failure) of PFIs and other such models as research indicates that projects involving flexible and collaborative MCS are better at managing risks and uncertainties (Barretta *et al.*, 2008; English and Baxter, 2010; Chung, 2016). Thus, a key policy consideration emerging from this study is that governmentality in complex networks such as PFIs is an evolving phenomenon as each partnering organisation has to deal with individuals and organisations outside their sovereign realm. The lessons from failures like Carillion and London Underground can inform the governmentality of future complex network organisations of public service delivery.

Based upon our analysis of the SPV's practices, deviation from the incentivized standards and variations in the partners' perceptions did not stem from resistance to the controls or in pursuance of opportunistic behavior. Instead, on several occasions during the fieldwork, the contractors appeared motivated to be the best performers in the industry. Thus, the tension about how accounting (i.e. MCS in Alpha) is used for managing the SPV's performance signal the presence of differing operating logics (Gebreiter and Hidayah, 2019). For the contractors, their logics appear powerful in guiding their cognition and decision-making. These contentions and practices of re-negotiations in complex PFI-type networks could be evidence of the struggle by the contractors to gain support for their logics and hence infuse their (version of) practices (Lounsbury, 2008). Although, there is emerging evidence of re-negotiation and extra-contractual collaborations for managing complex operational stages (Chung, 2016; Ahmad *et al.*, 2018). We therefore suggest that another *lens* be added to Dean's (2010) analytics of government, that is, the 'extra-contractual regimes of practices' which could focus on why and how localized inter-party collaboration and negotiations in PFI or other complex networks emerge in response to contentions arising from MCS elements. For example, it would be interesting to follow how Alpha's SPA is reviewed and revised. This paper also provides insights about risk transfer and management issues in operational (road) PFIs. While previous accounting research on how risk in operational UK PFI contracts is transferred and managed has focused on private sector perceptions and practices (Demirag *et al.*, 2011, 2012), this study draws on public and private sector perceptions about these issues. We find that capping financial incentives is influenced by the public sector's perception of 'optimal' risk transfer, which might be different to the private partners' perceptions. Moreover, we find that capping financial incentives (i.e. bonus payments) could compromise the incentives' effectiveness. However, since we could not perform a financial analysis of these issues, future research could investigate why and how the amounts and caps for performance-based incentives are determined, and their adequacy as effective incentive regimes, given the criticism that PFI contracting companies already earn substantial profits (Hellowell and Vecchi, 2012).

We acknowledge that by analyzing a single road case study PFI contract the findings may not be generalizable. However, this paper provides constructive and new nuanced understandings about control and governance of a public service supply chain partner in the context of PFI. Previous accounting research on supply chain controls and management has focused on the private sector (Spence and Rinaldi, 2014). We encourage accounting scholars to explore the roles of accounting as technologies of government within different structural and contextual arrangements of supply chains for public services.

References

- Abdullah, A. and Khadaroo, I. (2020), "The trust-control nexus in public private partnership (PPP) contracts", *Journal of Accounting and Public Policy*, forthcoming, 10.1016/j.jaccpubpol.2020.106768.
- Acerete, B., Stafford, A. and Stapleton, P. (2011), "Spanish healthcare public private partnerships: The 'Alzira model'", *Critical Perspectives on Accounting*, Vol. 22, No. 6, pp. 533-649.
- Ahmad, S., Connolly, C. and Demirag, I. (2018), "A study of the operationalization of management controls in United Kingdom Private Finance Initiative contracts", *Public Administration*, DOI: 10.1017/padm.12401.
- Alonso, J.M., Clifton, J. and Díaz-Fuentes, D. (2015), "Did New Public Management matter? An empirical analysis of the outsourcing and decentralization effects on public sector size", *Public Management Review*, Vol. 17, pp. 643-660.
- Andon, P. (2012), "Accounting-related research in PPPs/PFIs: Present contributions and future opportunities", *Accounting, Auditing & Accountability Journal*, Vol. 25 No. 5, pp. 876-924.
- Baker, K., Justice, B.J. and Skelcher, C. (2009), "The institutional design of self-governance: insights from public private partnerships", in Sorensen, E. and Triantafyllou, P. (Eds), *The Politics of Self Governance*, Ashgate, pp. 77-94.
- Barretta, A. and Busco, C. (2011), "Technologies of government in public sector's networks: In search of cooperation through management control innovations", *Management Accounting Research*, Vol. 22 No. 4, pp. 211-219.
- Barretta, A., Busco, C. and Ruggiero, P. (2008), "Trust in project financing: An Italian health care example", *Public Money & Management*, Vol. 28 No. 3, pp. 179-184.
- Bartocci, L., Grossi, G. and Mauro, S.G. (2019), "Towards a hybrid logic of participatory budgeting", *International Journal of Public Sector Management*, Vol. 32 No. 1, pp. 65-79.
- Billis, D. (2010), "Towards a theory of hybrid organizations", in Billis, D. (Ed.), *Hybrid Organizations and the Third Sector: Challenges for Practice, Theory and Policy*, Palgrave Macmillan, New York, NY, pp. 46-69.
- Boomsma, R. and O'Dwyer, B. (2019), "Constituting the governable NGO: The correlation between conduct and counter-conduct in the evolution of funder-NGO accountability relations", *Accounting, Organizations and Society*, Vol. 72, pp. 1-20.
- Brinkerhoff, D.W. and Brinkerhoff, J.M. (2011), "Public-private partnerships: Perspectives on purposes, publicness, and good governance", *Public administration and development*, Vol. 31 No. 1, pp. 2-14.
- Broadbent, J., Gill, J. and Laughlin, R. (2003), "Evaluating the Private Finance Initiative in the National Health Service in the UK", *Accounting, Auditing & Accountability Journal*, Vol. 16 No. 3, pp. 422-445.
- Broadbent, J., Gill, J. and Laughlin, R. (2004), *The Private Finance Initiative in the National Health Service: Nature, Emergence and the Role of Management Accounting in Decision Making and Post-Decision Project Evaluation*, Chartered Institute of Management Accountants, pp. 1-84.
- Broadbent, J., Gill, J. and Laughlin, R. (2008), "Identifying and controlling risk: The problem of uncertainty in the private finance initiative in the UK's National Health Service", *Critical Perspectives on Accounting*, Vol. 19 No. 1, pp. 40-78.
- Bujaki, M.L., Gaudet, S. and Iuliano, R.M. (2017), "Governmentality and identity construction through 50 years of personal income tax returns: The case of an immigrant couple in Canada", *Critical Perspectives on Accounting*, Vol. 46, pp. 54-74.
- Burke, R. and Demirag, I. (2015), "Changing perceptions on PPP games: Demand risk in Irish roads", *Critical Perspectives on Accounting*, Vol. 27, pp.189-208.

- Burke, R. and Demirag, I. (2017), "Risk transfer and stakeholder relationships in Public Private Partnerships", *Accounting Forum*, Vol. 41 No. 1, pp. 28-43.
- Caperchione, E., Demirag, I. and Grossi, G. (2017), "Public sector reforms and public private partnerships: Overview and research agenda", *Accounting Forum*, Vol. 41 No. 1, pp. 1-7.
- Chang, L.C. (2009), "The impact of political interests upon the formulation of performance measurements: The NHS star rating system", *Financial Accountability & Management*, Vol. 25 No. 2, pp. 145-165.
- Chiapello, E. (2017), "Critical accounting research and neoliberalism", *Critical Perspectives on Accounting*, Vol. 43, pp. 47-64.
- Chiapello, E. and Baker, C.R. (2011), "The introduction of French theory into English language accounting research", *Accounting, Auditing & Accountability Journal*, Vol. 24 No. 2, pp. 140-160.
- Chung, D. (2016), "Risks, Challenges and Value for Money of Public-Private Partnerships", *Financial Accountability & Management*, Vol. 32 No. 4, pp. 448-468.
- Dean, M. (2010), *Governmentality: Power and rule in modern society*, 2nd Edition, Sage Publications.
- Demirag, I. and Khadaroo, I. (2008), "Accountability and value for money in private finance initiative contracts", *Financial Accountability and Management*, Vol. 24 No. 4, pp. 455-478.
- Demirag, I., Khadaroo, I., Stapleton, P. and Stevenson, C. (2011), "Risks and the financing of PPP: Perspectives from the financiers", *The British Accounting Review*, Vol. 43, pp. 294-310.
- Demirag, I., Khadaroo, I., Stapleton, P. and Stevenson, C. (2012), "The diffusion of risks in public private partnership contracts", *Accounting, Auditing & Accountability Journal*, Vol. 25 No. 8, pp. 1317-1339.
- Demirag, I. (2018), "Sourcing public services: lessons learned from the collapse of Carillion inquiry". Written evidence submitted to Public Administration and Constitutional Affairs Committee, UK Parliament, (LCC 34).
- Department for Transport (DfT) (2000), *Transport ten-year plan 2000*, London.
- DfT (2004), *The future of transport: A network for 2030*, London.
- DfT (2015), *Road Investment Strategy: for the 2015/16 – 2019/20 Road Period*, pp. 1-30, www.gov.uk/government/publications (accessed 24 December 2018).
- Diefenbach, T. (2009), "New Public Management in public sector organizations: The dark sides of managerialistic 'enlightenment'", *Public Administration*, Vol. 87, pp. 892-909.
- Eckersley, P., Ferry, L. and Zakaria, Z. (2014), "A 'panoptical' or 'synoptical' approach to monitoring performance? Local public services in England and the widening accountability gap". *Critical Perspectives on Accounting*, Vol. 25, pp. 529-538.
- Edwards, P., Shaoul, J., Stafford, A. and Arblaster, L. (2004), *Evaluating the operation of PFI in roads and hospitals*, ACCA Research report 84, The Certified Accountants Educational Trust (CAET) Limited, London, pp. 237.
- English, L. and Baxter, J. (2010), "The changing nature of contracting and trust in public private partnerships: The case of Victorian PPP prisons", *Abacus*, Vol. 46 No. 3, pp. 289-319.
- English, L.M., Guthrie, J., Broadbent, J. and Laughlin, R. (2010), "Performance Audit of the Operational Stage of Long-Term Partnerships for the Private Sector Provision of Public Services", *Australian Accounting Review*, Vol. 20 No. 1, pp. 64-75.
- Florio, M. (2014), "Contemporary public enterprises: Innovation, accountability, governance", *Journal of Economic Policy Reform*, Vol. 17, pp. 201-208.
- Foucault, M. (1977), *Discipline and Punish*. A. Sheridan (Trans.). London: Allen Lane.
- Foucault, M. (1982), "The Subject and Power", *Critical Inquiry*, Vol. 8, no. 4, pp. 777-795.

- Foucault, M. (1988), "Technologies of the self", in Martin, L.H., Gutman, H. and Hutton, P.H. (Eds.), *Technologies of the Self*, A Seminar with Michel Foucault, University of Massachusetts Press, Amherst, MA.
- Foucault, M. (1991), "Governmentality", in Burchell, G., Gordon, C. and Miller, P. (Eds.), *The Foucault Effect: Studies in Governmentality*, The University of Chicago Press, Chicago, pp. 87-104.
- Frame, B. and Bebbington, J. (2012), "A comparison of the national sustainable development strategies for New Zealand and Scotland", *International Journal of Sustainable Development*, Vol. 15 No. 3, pp. 249-276.
- Gebreiter, F. and Hidayah, N.N. (2019), "Individual responses to competing accountability pressures in hybrid organisations: The case of an English business school", *Accounting, Auditing & Accountability Journal* [Accepted/Article in press].
- Hellowell, M. and Vecchi, V. (2012), "An Evaluation of the Projected Returns to Investors on 10 PFI Projects Commissioned by the National Health Service", *Financial Accountability & Management*, Vol. 28 No. 1, pp. 77-100.
- Highways Agency (HA) (2012), *Highways Agency Annual report and accounts 2011/12*, <http://www.highways.gov.uk/our-road-network/our-network/> (accessed 19 November 2013).
- HA (2015), *Highways Agency Annual report and accounts 2014/15*, www.gov.uk/government/publications (accessed 6 June 2015).
- Harvey, D.A. (2007). *A brief history of neoliberalism*. Oxford: Oxford University Press.
- Highways England (2016), *Highways England Annual Report and Accounts 2015-2016*, HC 529, Her Majesty's Stationery Office, London.
- HM Treasury (HMT) (2003), *PFI: Meeting Investment Challenge*, London
- HMT (2007), *Standardisation of PFI contract*, Version 4, London.
- HMT (2008), *Infrastructure procurement: Delivering long-term value*, London.
- HMT (2012), *A new approach to public private partnerships*, London.
- Hodge, G. and Greve, C. (2018), "Contemporary public-private partnership: Towards a global research agenda", *Financial Accountability and Management*, Vol. 34 No. 1, pp. 3-16.
- Jupe, R. (2011), "The modernisation and fragmentation of the UK's transport infrastructure", *Financial Accountability and Management*, Vol. 27, pp. 43-62.
- Jupe, R. (2012), "The privatization of British Energy: Risk transfer and the state", *Accounting, Organizations and Society*, Vol. 37 No. 2, pp. 116-129.
- Jupe, R. and Funnell, W. (2015), "Neoliberalism, consultants and the privatisation of public policy formulation: The case of Britain's rail industry", *Critical Perspectives on Accounting*, Vol. 29, pp. 65-85.
- Klijn, E.H. and Koppenjan, J. (2016), "The impact of contract characteristics on the performance of public-private partnerships (PPPs)". *Public Money & Management*, Vol. 36 No. 6, pp. 455-462.
- Koppenjan, J. Charles, M.B. and Ryan, N. (2008), "Editorial: Managing competing public values in public infrastructure projects", *Public Money & Management*, Vol. 28 No. 3, pp. 131-134.
- Liu, J., Love, P.E., Smith, J., Regan, M. and Palaneeswaran, E. (2015), "Review of performance measurement: implications for public-private partnerships", *Built Environment Project and Asset Management*, Vol. 5 No. 1, pp. 35-51.
- Lounsbury, M. (2008), "Institutional rationality and practice variation: New directions in the institutional analysis of practice", *Accounting, Organizations and Society*, Vol. 33 Nos. 4-5, pp. 349-361.

- Maran, L., Bracci, E. and Funnell, W. (2016), "Accounting and the management of power: Napoleon's occupation of the commune of Ferrara (1796–1799)", *Critical Perspectives on Accounting*, Vol. 34, pp. 60-78.
- Marginson, D.E.W. (2004), "The case study, the interview and the issues: A personal reflection", *The Real-Life Guide to Accounting Research: A Behind the Scenes View of Using Qualitative Research Methods*, Elsevier Ltd, pp. 325-337.
- McKinlay, A., Carter C., Pezet, E. and Clegg, S. (2010), "Using Foucault to make strategy", *Accounting, Auditing & Accountability Journal*, Vol 23 No. 8, pp. 1012-1031.
- Mennicken, A. (2010), "From inspection to auditing: Audit and markets as linked ecologies", *Accounting, Organizations and Society*, Vol. 35 No. 3, pp. 334-359.
- Micheli, P. and Neely, A. (2010), "Performance Measurement in the Public Sector in England: Searching for the Golden Thread", *Public Administration Review*, Vol. 70 No. 4, pp. 591-600.
- Miller, P. and Rose, N. (1990), "Governing economic life", *Economy and Society*, Vol. 19, pp. 1-31.
- Minnaar, R.A., Vosselman, E., van Veen-Dirks, P.M. and Zahir-ul-Hassan, M.K. (2017), "A relational perspective on the contract-control-trust nexus in an interfirm relationship", *Management Accounting Research*, Vol. 34, pp. 30-41.
- Mouritsen, J. and Thrane, S. (2006), "Accounting, network complementarities and the development of inter-organisational relations", *Accounting, Organisations and Society*, Vol. 31, pp. 241-275.
- National Audit Office (NAO) (2006), *A framework for evaluating the implementation of Private Finance Initiative projects*, Volume 2, The Stationary Office, London.
- NAO (2009), *Department for Transport: The failure of Metronet*, The Stationary Office, London.
- Narayan, A. and Stittle, J. (2018), "The role of accounting in transforming public tertiary institutions in New Zealand", *Accounting, Auditing & Accountability Journal*, Vol. 31 No. 2, pp. 503-530.
- NCRM (2012), *How many qualitative interviews is enough? Expert voices and early career reflections on sampling and cases in qualitative research*, Review Paper, National Centre for Research Methods, Southampton, pp. 1-42.
- Nyamori, R.O. (2009), "Construction and effects of markets in a local authority in New Zealand", *Accounting, Auditing & Accountability Journal*, Vol. 22 No. 7, pp. 1055-1086.
- Opara, M. and Rouse, P. (2018), "The perceived efficacy of public-private partnerships: A study from Canada", *Critical Perspectives on Accounting*, <https://doi.org/10.1016/j.cpa.2018.04.004>
- Pettersen, I.J. (2015), "From metrics to knowledge? Quality assessment in higher education", *Financial Accountability & Management*, Vol. 31 No. 1, pp. 23-40.
- Pollock, A.M. and Price, D. (2008), "Has the NAO audited risk transfer in operational Private Finance Initiative schemes?", *Public Money & Management*, Vol. 28 No. 3, pp. 173-178.
- Power, K.M. and Gendron, Y. (2015), "Qualitative Research in Auditing: A Methodological Road Map", *Auditing: A Journal of Practice and Theory*, Vol. 34 No. 2, pp. 147-65.
- Qu, S.Q. and Dumay, J. (2011), "The qualitative research interview", *Qualitative Research in Accounting and Management*, Vol. 8 No. 3, pp. 238-264.
- Raffnsøe, S., Mennicken, A. and Miller, P. (2017), "The Foucault Effect in Organization Studies", *Organization Studies*, DOI: 10.1177/0170840617745110.
- Rangel, T. and Galende, J. (2010), "Innovation in public-private partnerships (PPPs): the Spanish case of highway concessions", *Public Money & Management*, Vol. 30 No. 1, pp. 49-54.

- Reeves, E. (2008), "The practice of contracting in public private partnerships: Transaction costs and relational contracting in the Irish Schools Sector", *Public Administration*, Vol. 86 No. 4, pp. 969-986.
- Rose, N. and Miller, P. (1992), "Political power beyond the state: Problematics of government", *The British journal of sociology*, Vol. 43 No. 2, pp. 173-205.
- Sargiacomo, M. (2008), "Accounting and the "art of government": Margaret of Austria in Abruzzo (1539-85)", *European Accounting Review*, Vol. 17 No. 4, 667-95.
- Sclar, E. (2015). "The political economics of investment Utopia: Public-private partnerships for urban infrastructure finance", *Journal of Economic Policy Reform*, Vol. 18, pp. 1-15.
- Shaoul, J., Stafford, A. and Stapleton, P. (2007), "Evidence-based policies and the meaning of success: the case of a road built under Design Build Finance and Operate (DBFO)", *Evidence and Policy: A Journal of Research, Debate and Practice*, Vol. 3 No. 2, pp. 159-179.
- Shaoul, J., Stafford, A. and Stapleton, P. (2012), "Accountability and corporate governance of public private partnerships", *Critical Perspectives on Accounting*, Vol. 23 No. 3, pp. 213-229.
- Silverman, D. (2011), *Interpreting Qualitative Data: Methods for Analysing Talk, Text and Interaction*, 3rd Edition, Sage, London.
- Skelcher, C. (2010), "Governing partnerships", In G.A. Hodge, C. Greve and A.E. Boardman (Eds.), *International handbook in public private partnerships*, Edward Elgar, Cheltenham.
- Speklé, F.R. and Verbeeten, H.M.F. (2014), "The use of performance measurement systems in the public sector: Effects on performance", *Management Accounting Research*, Vol. 25, pp. 131-146.
- Spence, L.J. and Rinaldi, L. (2014), "Governmentality in accounting and accountability: A case study of embedding sustainability in a supply chain", *Accounting, Organizations and Society*, Vol. 39 No. 6, pp. 433-452.
- Steijn, B., Klijn, E.H. and Edelenbos, J. (2011), "Public private partnerships: Added value by organizational form or management?", *Public Administration*, Vol. 89, pp. 1235-1252.
- Tomkins, C. (2001), "Interdependencies, trust and information in relationships, alliances and networks", *Accounting, Organisations and Society*, Vol. 26, pp. 161-191.
- Walker, S. (2016). "Revisiting the roles of accounting in society", *Accounting, Organizations and Society*, Vol. 49, pp. 41-50.
- Yehoue, B.E. (2013). "Financial and sovereign debt crises and PPP market structure", In P. Vries and B.E. Yehoue (Eds.), *The Routledge companion to public-private partnerships*, pp. 349-370. Routledge, Abingdon.
- Zahir-ul-Hassan, M.K., Minnaar, R.A. and Vosselman, E.G.J. (2016), "Governance and Control as Mediating Instruments in an Inter-firm Relationship: Towards Collaboration or Transactions?", *Accounting and Business Research*, Vol. 46 No. 4, pp. 365-389.

Appendix 1 Accounting-related PFI research on contract management

Author(s)	Topic of study	Analytical approach	Regional focus
Abdullah and Khadaroo (2020)	Trust-control nexus in PFI contracts	Case study approach using semi-structured interviews	UK (schools)
Ahmad <i>et al.</i> (2018)	MCS operationalization during a PFI contract's operations and maintenance stage	Case study, drawing on literature on MCS and trust in networks	UK (roads)
Barretta <i>et al.</i> (2008)	Trust practices between private sector consortium partners	Case study approach using semi-structured interviews	Italy (health sector)
Broadbent <i>et al.</i> (2003a)	Framework for evaluating VFM in operational PFI contracts	Literature review and PFI-policy document analysis	UK (hospitals)
Broadbent <i>et al.</i> (2003b)	Contracting relationships and the role of trust	Case study using 'relational contracting' and 'transaction cost economics'	UK (hospitals)
Broadbent <i>et al.</i> (2004)	Macro- and micro-level discourse and PFI decision making	Case study and analysis of government PFI-policy documents	UK (hospitals)
Broadbent <i>et al.</i> (2008)	Managing risk and uncertainty in PFI contracts	Case study applying 'accounting logic' in PFI risk management	UK (hospitals)
Chung (2016)	Contract closure and government hand back	Case study	Australia (roads)
Demirag and Burke (2013)	Collaboration and trust in PFIs and their inter-relations with management controls	Literature review	Not specific
Edwards <i>et al.</i> (2004)	Financial and operational performance of certain case study PFI projects	Case study and analysis of government PFI-policy guidelines	UK (hospitals and roads)
English (2007)	Performance audits of Australian PFIs	Analysis of government guidelines and audit reports	Australia (no specific sector)
English and Baxter (2010)	Changing nature of management controls and trust in pre- and post-2000 PFI contracts	Case study, relying mainly on an analysis of contract documents	Australia (prisons)
English <i>et al.</i> (2010)	Conceptual framework for evaluating VFM in operational PFIs	Literature review	Australia and UK (no specific sector)
Liu <i>et al.</i> (2015)	PFI performance measurement framework, drawing on the 'Performance Prism'	Conceptual paper, with no empirical analyzes	Not specific

Author(s)	Topic of study	Analytical approach	Regional focus
Pollock and Price (2008)	Examines NAO (audit) reports on operational PFIs	Document analysis	UK (no specific sector)