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Boundary spanners and calculative practices

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Abstract

This paper questions to what extent particular calculative practices used for inter-organisational decision-making help or hinder boundary spanners meet performativity ideals. It uses programmatic rationalities of government as a framework to study reciprocity between them and the conditions of performativity. Empirical data were collected from healthcare commissioning spaces of English National Health Service (NHS). Data triangulation was achieved through documentary analysis, data collected through interviews, and observation notes taken in local commissioning meetings and national conferences. Findings revealed an apparent lack of reciprocity between programmatic rationality and calculative practices surrounding the commissioning activities of boundary spanners. As a consequence, in local commissioning situations boundary spanners with formal roles used calculative practices differently than semi-formal boundary spanners. Unlike their formal counterparts, who used mainly accounting information in their calculative practices, semi-formal boundary spanners incorporated non-accounting information and devised alternative calculative practices. In addition, while formal boundary spanners on NHS Committees used calculative practices in maintaining clear boundaries between commissioning and provider organisations, semi-formal boundary spanners made use of the data of both parties in order to reach inter organisational decisions. The study has three main contributions. First, it differentiates boundary spanners and explains differences

in their interaction with calculative practices. Second, it introduces the concept of reciprocity to inter-organisational studies in accounting. Third, it shows how conditions of performativity reflected in micro-settings influenced how semi-formal boundary spanners used calculative practices (and other supplementary information) to achieve performance ideals of government programmes.

KEYWORDS
boundary spanners, calculative practices, commissioning, healthcare, inter-organisational, decision-making

1 | INTRODUCTION

This paper focuses on two prominent features that characterise contemporary public sector management. These are inter-organisational decision-making where two or more organisations enter into dialogue and negotiation (Anderson & Dekker, 2014; Anderson & Sedatole, 2003; Dekker, 2016) and the 'calculative practices' of new public management (Kurunmaki, Mennicken, & Miller, 2016; Lapsley & Miller, 2019; Miller, 2001; Steccolini, 2019) for managing and controlling public sector organisations (Lapsley, 2008). Inter-organisational relations and inter-organisational decision-making (hereafter IODM) are not only pertinent to the public sector but also contemporary management accounting research in various contexts and organisational settings (Anderson et al., 2015; Dekker, 2004). Within the literature, there is agreement about the importance of individuals and the need to study them further so that inter-organisational decision-making processes and the way management accounting is implicated in such processes can be better understood (Abernethy, Bouwens, & van Lent, 2004; Anderson et al., 2015).

In the literature, 'boundary spanners' are defined individuals who are responsible for management and decision-making between two or more organisations (Zaheer, McEvily, & Perrone, 1998). Boundary spanners have distinctive roles and a range of responsibilities in inter-organisational spaces and face the challenge of meeting the multiple expectations of partner organisations. The aforementioned literature is limited in its documentation for public sector organisations how the attributes of calculative practices (Miller, 2001) help and/or hinder boundary spanners in delivering outcomes that are in line with the expectations (defined by government programmes and policies) of their organisations. In previous studies of calculative practices, researchers use the performativity principle to explain how individuals are shaped by these practices (Kurunmaki et al., 2016). However, it is not well known from empirical studies whether and how these individuals have any influence on shaping calculative practices to meet performativity ideals when two or more organisations interact. Therefore, the main research question in this study is how boundary spanners use (and influence the use of) calculative practices in IODM to achieve performativity ideals defined by government programmes.

Additionally, in studies of calculative practices there is an underlying assumption of reciprocity (Rose & Miller, 1992). Reciprocity in this context is defined as having in place relevant and adequate calculative practices that are at the disposal of individuals in order to meet performativity ideals. In other words, reciprocity indicates that calculative practices serve to meet the performativity ideals of government programmes. What is not clear is what individuals do if the calculative practices that are in place are not adequate to achieve performativity ideals. Inter-organisational spaces offer a fertile field of study where multiple calculative practices and accounting technologies are at play simultaneously and different organisations might have different priorities and diverging expectations. As a consequence existing calculative practices might not always be adequate to address the needs of one or both parties involved. This

paper studies such instances where current calculative practices are not always deemed to be adequate by boundary spanners to meet performativity ideals in inter-organisational spaces within the public sector.

Our research setting and empirical context for the paper is the English National Health Service (NHS) following the changes introduced by the 2010 White Paper and the 2012 Social Care Act legislation. These two documents explain how commissioning of healthcare in the NHS changed both in terms of its organisational structure and in the roles of professionals who are in charge of the commissioning practice. In this emerging structure, commissioning of health services takes place in an inter-organisational space where new purchaser organisations called clinical commissioning groups (hereafter CCGs) and provider organisations like hospitals and general practice Surgeries (hereafter GP surgeries) interact to make decisions about healthcare delivery to the nation and enter into legally binding contracts. The study focuses on the use of calculative practices in negotiations and decision-making between these organisations undertaken by various types of boundary spanners (including managers, clinicians and accountants) and the effect of this on the perceptions and actions of boundary spanners with regard to commissioning.

Primary data were collected from semi-structured interviews with 19 boundary spanners employed by 12 different organisations representing both the purchasing and provisioning sides of healthcare commissioning and observation notes were taken at four local commissioning meetings and at two NHS and CCG commissioning conferences.

Our study contributes to the current literature in the following three ways. First, as indicated in our findings, we identified two sets of boundary spanners: formal and semi-formal. As their name indicates, the former group was formally appointed boundary spanners representing their organisations at inter-organisational committees (called local commissioning committees) between representatives of local CCGs and hospitals. The latter group was present at local committee meetings; although they were not formally appointed to their role and their involvement was mostly voluntary, these semi-formal boundary spanners were highly influential in IODM in the situations that we studied.

Second, we propose introducing the concept of 'reciprocity' to IODM studies. Our findings implied that different IODM circumstances required a reciprocal set of calculative practices or a reciprocal approach of using existing calculative practices in order to meet the expectations of different organisations. The evidence we present shows that when reciprocity is not present difficulties arise achieving the desired outcomes of all organisations involved in decision-making. A lack of reciprocity could also have an adverse impact on decision-making processes, causing a lack of consistency, decreasing involvement and a lowering of trust among boundary spanners.

Third, we contribute to current studies of performativity by giving examples of how conditions of performativity influence micro-settings and individuals in making decisions. We describe the conditions of performativity with reference to calculative practices (financial and management accounting practices) and confirm findings of recent studies on how performativity ideals govern boundary spanners (in particular formal boundary spanners) as calculable objects (Kurunmaki et al., 2016). As a contribution to this debate, the evidence showed that when the existing set of calculative practices was not adequate, influential semi-formal boundary spanners were able to suggest modifications to existing practices and convince other semi-formal and formal boundary spanners to use them in IODM. With this evidence, we argue that boundary spanners as calculable objects adhere to the conditions of performativity but they are at the same time able to suggest alternative calculative practices and amend them accordingly in order to meet the performativity ideals of their organisation (while recognizing performance expectations of other organisations involved in IODM).

The remainder of the paper is structured as follows: we begin by giving an overview of the relevant studies in IODM. Then the study background is presented in terms of changes taking place in commissioning programmes and policies with reference to relevant accounting practices. Theoretical expectations of the study are then explained in terms of 'calculative practices' and 'conditionality of performativity'. An explanation of methodology, data collection and analysis is followed by study findings, and the paper ends with concluding comments and discussion.

2 | 'IODM' IN PUBLIC SECTOR ACCOUNTING STUDIES

There is a growing interest in accounting research for better understanding of inter-organisational management accounting and control practices (Anderson & Dekker, 2014; Anderson & Sedatole, 2003; Dekker, 2016). Recent reviews of this literature indicate that management accounting research appears to have neglected the role of managers and employees assigned to take active roles in inter-organisational decision-making activities (Dekker, 2016, p. 87). These boundary spanner roles are a crucial aspect of success in inter-organisational alliances (Taylor, 2005), yet the individuals in them are expected to serve the interests of multiple organisations which have varied (and at times conflicting) interests. Research evidence in management accounting is limited in the area of examining the behaviour of boundary spanners in influencing (and being influenced by) inter-organisational relationships and their dynamics.

2.1 | Inter-organisational spaces and role of boundary spanners in public sector studies

Thomasson (2018) distinguishes between governance and managerial levels of integration with respect to the use of IODM. In studying public sector mergers as an example of such a situation, the study revealed there were additional boundaries, such as financial, administrative, legal and geographical. In different mergers that have been studied, different forms of boundaries were observed indicating the differing nature of inter-organisational work and boundary spanner responsibilities.

Despite the proliferation of boundaries, other research on inter-organisational spaces of the public sector indicated that usually one particular group of actors interacted more intensively than others as a result of their dependency on delivering public-integrated services (Agranoff & McGuire, 2001; Mandell 2001; Milward & Provan, 2000).

Another study by Noble and Jones (2006) looked at the roles and behaviours of boundary spanners in voluntary partnerships between private and public sector organisations. The research confirms previous literature findings in describing the challenges of inter-organisational spaces and defines a four-stage evolutionary process with one or two challenges at each stage. It is evident that the process of inter-organisational work is challenging and boundary spanners employ various strategies to overcome such challenges even when inter-organisational work is voluntary and not mandatory.

In public sector management literature, the inter-organisational field is sometimes described as a self-sustaining system (Klijn, 2008) in which very little cooperation exists and which is dominated by 'institutionalised thought structures' (Warren, Bergunder, Newton, & Rose, 1974). Public sector entities have clear organisational domains that result in frequent domain conflicts between partner organisations when they have to cooperate (Aldrich, 1979; Pfeffer, 1981; Warren et al., 1974).

In the case of commissioning and contractual agreement in NHS, previous research confirmed that there is an apparent tension between maintaining cost efficiency and improving service delivery. For example, in their recent study of this context Chambers et al. (2013) showed that the need to tender service delivery to acquire and maintain incentives for cost efficiency as well as the need to promote interaction and learning processes between organisations to improve service delivery was creating long-standing tensions.

The studies above indicate that inter-organisational spaces in the public sector (and in commissioning in NHS) are complex and include domain conflicts between organisations. Furthermore, in more complex inter-organisational situations (such as mergers in the public sector), there is the possibility of a proliferation of boundary spanners dealing with various dimensions of inter-organisational relations. Despite this proliferation, there is evidence showing that particular groups of actors appear to play a more critical role than others in inter-organisational spaces. It is also evident in these studies that inter-organisational relations have an evolutionary characteristic and they tend to go through stages of evolution and a different set of challenges at every stage.

According to the aforementioned studies, although the role of boundary spanners in inter-organisational spheres is widely accepted, the limits of boundary spanning activities of individuals in relation to their use of accounting are not clear. It is therefore not evident how boundary spanners use (and influence the use of) calculative practices in IODM to achieve performativity ideals defined by government programmes.

3 | NHS COMMISSIONING: PROVIDERS AND COMMISSIONERS OF HEALTH CARE IN ENGLAND

The purpose of this section is to provide the study background in terms of changes taking place in English NHS commissioning programmes and policies with reference to relevant accounting practices.

Commissioning is a complex and dynamic process involving strategic planning, purchasing, contracting and monitoring of health services to meet the needs of the local population. Commissioning was introduced in the NHS following the creation of the internal market at the beginning of the 1990s. An internal market is a quasi-market predicated on the presence of competition (just like in the private sector) but within the scope of the tax-funded NHS. This development was influenced by the government's desire to extend New Public Management (NPM) reforms (informed by market, governance and accounting logics) to healthcare delivery (Jackson, Paterson, Pong, & Scarparo, 2014).

On 1 April 2013, the 'old' system of commissioning NHS services changed fundamentally: the old commissioners in the form of Primary Care Trusts (PCTs) and Strategic Health Authorities (SHAs) ceased to exist. The rationale for this was that 'layers of excessive bureaucracy' and red tape could be slashed so that frontline medical professionals could structure services around what works best for patients (Asthana, 2011, p. 816). The abolition of the old commissioning system was meant to reduce NHS management costs by about 45% (DoH, 2010). The responsibility and resources for commissioning hospital and other care[1] passed from PCTs and SHAs to 211 CCGs – the new commissioners. CCGs are comprised mostly of representatives from local GP surgeries, but also nurses, allied health professionals, pharmacists, other healthcare professionals and managers.[2] (Specialised and primary care are commissioned at a national level by NHS England, the former NHS Commissioning Board.)

CCGs became an essential part of the latest model of commissioning introduced by the coalition government of 2010. The leadership of CCGs is shared between an accountable officer (a GP or a manager) and a chair (a clinician or a non-clinician). The accountable officer is responsible for ensuring that the CCG fulfils its duties to exercise its functions effectively, efficiently and economically, thus ensuring improvement in the quality of services and the health of the local population whilst maintaining value for money. The chair supports CCG members as they make plans and decisions on the commissioning of healthcare whilst delivering the best possible use of public funds. According to 2017 figures, altogether 207 (this number changes as a result of continuous mergers between CCGs) CCGs in England are now annually handling £75.2 billion, which is two-thirds of the total NHS budget (NHS, 2017).

In addition to their governing committee, each CCG has a number of other committees. Some of those committees are established for local commissioning purposes, such as joint clinical committee where there are representatives from CCG, hospitals, social services, local government to make joint strategic decisions for their region.

One major difference between CCGs and previous commissioning bodies is the way budgets are prepared. In CCG commissioning, budgets are real rather than indicative (Department of Health, 2012). This is worth noting since it

[1] CCGs currently commission: community health services, maternity services, elective hospital care, urgent and emergency care, including ambulance and out-of-hours services, older people's healthcare, children's healthcare, rehabilitation, mental healthcare, healthcare services for people with learning disabilities, continuing healthcare, infertility services, among others.

[2] When the recent reforms were first proposed, CCGs used to be called GP-led consortia. This name was later changed to CCGs, following advice from the NHS Future Forum 2011, to reflect the fact that professionals other than just GPs, such as nurses, are also part of these consortia (Storey & Grint, 2012).

means that financial resources are allocated to CCGs based on actual quantities of services provided as opposed to previous initiatives where financial resources were allocated based on historical lump sum amounts (NHS, 2017). In the same fashion, CCGs can allocate financial resources to providers and commission services based on actual quantities required, not on indicative or estimated quantities. These accounting structures in CCGs call for a partnership between local GPs and senior commissioning managers.

4 | CALCULATIVE PRACTICES AND CONDITIONALITY OF PERFORMATIVITY

Our theoretical expectation was built on the work of Rose and Miller (1992) who argued that programmatic or political rationalities of government are made operable through relevant technologies of accounting. They call these technologies 'calculative practices' or 'technologies of government' (Rose & Miller, 1992, p. 183). These are the financial mechanisms through which programmes of government are articulated and made operable. Through these practices, attention is directed at how financial information shapes social and economic relations.

The calculative practices referred to in this study included a variety of actions such as the calculation of budgeted and actual income and costs, identifying deviations from standard costs and planned volumes of activity, comparison of budget figures to actual results, setting transfer prices for transferring funds between government agencies and so on. Management accounting offers a wide range of tools with which to manage an organisation as an enterprise and to act upon individuals and subunits as standardised entities (Miller, 2001). Calculative practices are technologies through which conceptions of proper modes of governing persons and populations are elaborated. There is therefore a *reciprocal relation* between calculative practices and the social relations they form and seek to manage (Miller, 2001). Government – as a domain of strategies, techniques and procedures and through different forces – seeks to render programmes operable. Rose and Miller (1992) argue that programmatic or political rationalities of government are made operable through reciprocity between programmatic ideals and calculative practices. Theoretically, the study therefore aims to unpack (in the first part of Empirical findings section below) the reciprocity between the studied commissioning legislation and the calculative practices that governed commissioning in order to make legislative changes operable.

According to the definition of technologies of government, a set of calculative practices would be in place as a mechanism through which government programmes would be articulated and made operable. Hence, the expectation of the study is to find new accounting practices that are in line with the government programme. This expectation informs other analyses and Empirical findings of the study.

Another concept associated with calculative practices is 'calculable objects'. Through various accounting technologies, the actions of individuals and groups of individuals (and organisations) can be recorded and controlled. In this way, calculative practices render individuals as calculable objects. We bring the concept of performativity formulated by Callon (1986) to our theoretical framework of calculative practices. Performativity is generally described as a novel and powerful account of how calculative devices shape economic actors and markets. It privileges the role of calculative devices over established social relations and norms, ignoring organisational political and institutional contexts. In the second part of the findings, we define conditions of performativity for the organisations we studied and explain how formal boundary spanners engage with calculative practices and display characteristics of calculable objects. According to Kurunmaki et al. (2016), numbers that can be expressed in economic or financial terms have come to be endowed with a 'form of truth' that have the authority to guide, govern, shape and influence the individuals and society. Calculative practices therefore have the potential to govern and shape boundary spanners as calculable objects.

In recent accounts of performativity, two main areas identified for further study are (a) the influence of micro-level interrelationships in performativity and (b) the role of individuals in shaping calculative devices (Beunza & Ferraro, 2019). To consider both of these neglected aspects of performativity, in this paper we frame our theoretical expectation as follows. Calculative practices in the public sector studied in this context are designed centrally and made operable through government programmes and technologies. As stated above, these calculative practices make individuals

and their actions calculable, turning them into calculable objects (Kurunmaki et al., 2016). As per performativity ideals, these calculative devices therefore have ultimate power over individuals and markets shaping them accordingly.

Detailed and intricate relationships at the micro-level taking place between calculable objects and calculative practices is the empirical focus of the third part of the findings section. The attitudes of semi-formal boundary spanners and situations studied provide evidence of conditions under which some of these individuals use calculative practices to generate new possibilities devised to meet the performativity and quantification ideals of NPM (Kurunmaki et al., 2016). Later in the Discussion section, we turn to these three theoretical aspects of our study and elaborate on our conclusions.

5 | DATA COLLECTION AND ANALYSIS

Data collection consisted of three stages. Our aim in Stage 1 was to understand how decisions for commissioning were made between boundary spanners and how they used calculative practices in decision-making between providers and commissioners. To that end, Stage 1 consisted of introductory interviews, observation in local meetings and collection of relevant documents. Introductory interviews (see Table 1 for a list of interviewees) were with senior managers (interviews 1 and 4 in Table 1) from two large hospitals (Hospitals A and B). These were followed by observations at commissioning meetings between representatives of Hospitals A and B and local Commissioning Groups A and B (see Table 2 regarding content and membership of meetings observed). In addition to primary data, we collected documentary evidence for local Clinical Commissioning Committees. These committees were bodies responsible for commissioning of GP services. On these committees, there were representatives from GP surgeries, large acute hospitals, lay members as well as senior managers and/or GPs appointed by the CCG.

At Stage 2, we attended National Commissioning Conferences to collect observation data and documentary evidence in relation to calculative practices and to observe activities, workshops, etc., involving calculative practices, to collect data about the level of awareness and general approach towards relevant accounting technologies at a national level. At the conferences, we also distributed a leaflet about our study to more than 200 delegates and asked them if they would be willing to participate as an interviewee if they believed that they met our definition of 'boundary spanner in commissioning'.

In Stage 3, we conducted further interviews with boundary spanners from different parts of the country and the Director of Financial Strategy of the NHS Commissioning Board.

These were 12 interviewees (see Interviewees 8–19 in Table 1) who accepted our invitation at Stage 2. Our aim was to ask if these interviewees had similar or different experiences to those that we observed in Stage 1 and explore if there were any other issues affecting their perceptions and decision-making when they use calculative practices in commissioning.

In addition to interviews, observation data collected during the fieldwork, and commissioning documents collected from clinical commissioning committees, we used policy documents as another source of data. This way it was possible to use a data triangulation approach in the study between interview transcripts, observation notes and documentary analysis. The main policy documents used were the Department of Health's White Paper of 2010 *Equity and Excellence: Liberating the NHS* (Department of Health 2010) and the Health and Social Care Act (HSCA) of 2012 (HSCA 2012).

Interview data sources are summarised in Table 1. In total, 19 boundary spanners from 12 organisations were interviewed. These organisations included three hospitals, two GP surgeries and seven NHS CCGs. All interviewees were actively involved in inter-organisational commissioning decision-making and had different professional backgrounds as clinicians, managers and accountants. Some of these interviewees were also observed at local commissioning meetings (noted with an asterisk in Table 2). These interviews were complemented with two sets of observation notes taken during four CCG commissioning meetings and two national NHS commissioning conferences.

For data analysis, interview transcripts were coded with computer-assisted qualitative data analysis software MAXQDA 10. This software allows the user to highlight text excerpts and assign to them a code by using colours

TABLE 1 List of interviewees and their role as boundary spanners

No	Organisation type	Professional background	Job title role: Formal or *semi-formal*[a]	Commissioning-related responsibilities
1	Hospital A	Accountant 1	Director of Finance and Deputy Chief Executive – *Semi-formal boundary spanner*	Head of commissioning team, attends meetings with CCG
2	Hospital A	Manager 1	Business Development Manager – *Semi-formal boundary spanner*	Ad hoc member of commissioning meetings and member of Meeting 1 observed
3	Hospital A	Manager 2	Commissioning Specialist – *Semi-formal boundary spanner*	Member of commissioning team and member of Meeting 1 and Meeting 3 observed
4	Hospital B	Clinician 1	Director of Service Improvement – Formal boundary spanner	Member of local clinical commissioning committee
5	Hospital B	Manager 3	Director of Commissioning and Business – *Semi-formal boundary spanner*	Member of Meeting 4 observed, member of commissioning team
6	Hospital C	Clinician 2	Director of Clinical Finance – Formal boundary spanner	Member of Commissioning team, executive member of local commissioning committee
7	Hospital C	Accountant 2	Chief Financial Officer – *Semi-formal boundary spanner*	Member of commissioning team, regular contributor to commissioning meetings with local commissioning group
8	GP Surgery A	Clinician 3	GP- Commissioning representative – Formal boundary spanner	Member of local commissioning committee
9	GP Surgery B	Clinician 4	GP and CCG Board member – dual role (provider and commissioner) – Formal boundary spanner	Member of local commissioning committee
10	CCG A	Clinician 5	Head of Public Health and member of CCG board – Formal boundary spanner	Member of local Clinical Commissioning Committee, member of Meeting 1 observed
11	CCG A	Manager 4	Commissioning specialist – *Semi-formal boundary spanner*	Member of local clinical commissioning committee and member of Meeting 1 and Meeting 3 observed and attends clinical commissioning committee meetings when required
12	CCG B	Clinician 6	GP and Accountable Officer – dual role -provider and CCG – Formal boundary spanner	Accountable officer for local commissioning committee

(Continues)

TABLE 1 (Continued)

No	Organisation type	Professional background	Job title role: Formal or *semi-formal*[a]	Commissioning-related responsibilities
13	CCG B	Clinician 7	CCG commissioning representative – Formal boundary spanner	Representative of local commissioning committee in Meeting 2 and Meeting 4 observed
14	CCG C	Accountant 3	Head of Financial Strategy & Commissioning - Formal boundary spanner	Member of various clinical commissioning committees
15	CCG D	Manager 5	Head of Service Development – Formal boundary spanner	Regular member of commissioning committees, attends meetings with providers
16	CCG E	Clinician 8	GP and Accountable Officer – dual role (provider and commissioner) – Formal boundary spanner	Member of local commissioning committee
17	CCG F	Accountant 4	Director of Finance – Formal boundary spanner	Member of local commissioning committee
18	CCG G	Clinician 9	GP and Chair and Clinical Lead – triple role – Formal boundary spanner	Member of local commissioning committee
19	CCG H	Clinician 10	GP and CCG Chair – dual role – Formal boundary spanner	Member of local commissioning committee

Note: [a]Semi-formal boundary spanners are noted in italics.

and code descriptions. The coding was done in two stages (Saldaña, 2013). The first stage involved 'structural' coding, that is coding according to the professional category. The second stage was more detailed and involved 'descriptive' coding. After coding but before analysing the interview data (Maylor & Blackmon, 2005), data reduction was performed. This was done with the help of data segment 'weights', a tool available in the MAXQDA 10 software. The higher the weight assigned to a segment of transcribed text during the coding stage, the more likely this particular segment was to be used in the data presentation section. High weights were assigned to segments which either offered opinions shared by several interview subjects, or represented a unique, diverse view for that particular professional group.

6 | EMPIRICAL FINDINGS

We group our findings into four subsections. The first subsection explains the boundary spanners of the study and explains how and why they are defined as formal and semi-formal boundary spanners. In subsections two, three and four, we follow the theoretical framework explained in Section 4. In the second subsection, we refer to secondary data to search for reciprocity between calculative practices and commissioning guidelines in policy documents studied. In the third subsection, we explain the interaction of formal and semi-formal boundary spanners with calculative practices. The fourth subsection includes evidence from boundary spanners observed in meetings to explain their interaction with calculative practices and how decisions were reached in IODM.

TABLE 2 Semi-formal boundary spanners at meetings observed

Organisations	Meeting 1 Topic: Referrals from A&E	Meeting 3 Topic: Referrals from A&E
Hospital A	Manager 2 – Commissioning specialist[a] Nurse/Manager A – Out of hours manager	Manager 1 – Business development manager[a] Manager 2 – Commissioning specialist[a]
CCG A	Manager 4 – Commissioning specialist[a] Clinician 5 – Head of public health team[a] Finance team representative	Manager 4 – Commissioning specialist[a] Public health team member Finance team representative
	Meeting 2 Topic: Payments for Rehabilitative care	**Meeting 4 Topic: Payments for Rehabilitative care**
Hospital B	Manager 3[a] – Director of Commissioning & Business Rehabilitative care service manager B1	Manager 3[a] – Director of Commissioning & Business Rehabilitative care service manager B2
CCG B	Clinician 7[a] – Commissioning representative[a]	Public Health Representative – Clinician

Notes: Meetings 1 and 3 were about a recently emerging issue of about referrals from Accident and Emergency department. Meetings 2 and 4 were about a long-standing issue about payments for rehabilitative care for elderly patient. All participants except Clinician 5 and 7 were semi-formal boundary spanners. [a]denotes interviewees who were present in meetings.

6.1 | Who are the boundary spanners and how are they selected?

According to the evidence, there were two broad groups of boundary spanners which we termed 'formal' and 'semi-formal' boundary spanners. 'Formal boundary spanners' were formally appointed to their role in local commissioning committees, CCGs or national commissioning boards. Local commissioning committees were inter-organisational bodies with representatives from local CCG, hospitals, local authority representatives and lay members. The formal boundary spanners who attended these meetings had a range of professional expertise (managers, clinicians and accountants). Clinicians 1–10 in Table 1 were all formal boundary spanners as they were appointed to their role either in CCGs or Hospitals B and C to represent their organisation in inter-organisational decision-making for commissioning. Similarly, Accountant 3 and Manager 5 also were formal boundary spanners because they were appointed to their role as committee members of regional or national commissioning boards.

According to policy documents about the composition of local clinical committees (DoH 2010; HSCA, 2012), there were not any specific guidelines or requirements for individuals fulfilling this role; instead, leeway was given to each CCG to decide on their recruitment strategy as they saw fit (HSCA, 2012, Chapter A2, 14N, Section title: Regulations as to governing bodies of clinical commissioning groups). Other organisations appointed their representative in a similar fashion. This approach to recruitment was perhaps because of the large scale of the NHS, where often a one-solution-fits-all approach is practically impossible. As a consequence, selection and appointment in commissioning committees have been delegated in a dispersed-governance style to individual CCGs.

It was observed and recorded in meetings 2 and 3 that this freedom may have been intentional in policy design so that commissioners could enjoy the flexibility to meet their local needs and objectives with available resources and established structures. Nevertheless, at meetings observed at both sites, it was suggested that the policy leeway caused differences in opinion, tension, conflict and confusion over commissioning processes. When we asked the interviewees about what their motivation was to become a formal boundary spanner, the were four main types of answers: having worked in previous commissioning bodies (PCTs) in the past, work experience in commissioning teams of provider organisations, career progression and personal interest.

We call the second group of boundary spanners 'semi-formal boundary spanners'. These individuals were the members of meetings that we had observed between CCGs and providers (see Table 2). Although these individuals were not formally appointed to their role, they were involved in local decision-making. For example, Managers

1, 2, and 5, Accountant 2 and Clinician 7 were called into these meetings because of their experience and knowledge about the particular service that was being discussed. Our observation in meetings showed that these semi-formal boundary spanners were present and active contributors in commissioning negotiations with CCGs. As we explain later in this section, these boundary spanners referred regularly to calculative practices for commissioning in their words and actions. In fact, calculative practices had a significant influence on how the decisions were made in these meetings or how these individuals suggested alternative calculative practices to resolve financial problems.

6.2 | Reciprocity between commissioning guidelines and calculative practices

In line with the theoretical expectations explained in Section 4, the transfer of commissioning responsibility from PCTs to CCGs was meant to coincide with a new funding formula. A new funding formula would confirm the reciprocity that we expected to see in this research between government programmes and calculative practices (DoH, 2011). This new funding formula according to which the new purchasing organisations (CCGs) would have received their budget allocation was based on person-based resource allocation.[3] The new formula was designed to include variations in the health needs of individuals and populations that each CCG served. However, due to concerns raised by the British Medical Council about the implications of using a new formula (British Medical Journal, 2013), instead of replacing the previous Weighted Capital Formulae (DoH, 2011) that was used for PCTs, the old funding formula continued to be used with a 2.3% uprating. This was the first evidence of the lack of reciprocity that the study had expected to take place if a new funding formula for CCGs was adapted. In addition to this, although the formula remained largely the same, the new way of allocating funds to CCGs were not comparable to previous allocations. This was because even if a CCG covered the same population as its predecessor PCT organisation, each CCG had different commissioning responsibilities compared to the PCT (House of Commons Debate, 2013, c4w). This additional evidence confirmed that despite debates at the policy level, there were not any specific changes in the funding calculations for CCGs, which could include a better representation of clinical decisions as described in the policy documents. Accordingly, the fund allocated to CCGs was a fixed amount calculated according to the planned healthcare needs of the population that they served. Performativity ideals for CCGs concerning their fund allocation were to make sure that health services that the population demanded were delivered at required standards, to pay provider organisations (hospitals and GP surgeries) for the services that they delivered, and to achieve these ideals within the fixed budget that they were allocated.

On the other hand, the expectation of provider organisations for income generation was not fixed (contrary to the fixed income of CCGs). Since 2002, the predominant method for transferring funds to providers has been through the system of Payment by Results (PbR) (DoH, 2002) usually referred to as the 'tariff prices'. Tariff prices are essentially a price list for thousands of treatments and packages of care which determines how much commissioners (CCGs or previously PCTs) pay providers for each treatment. This is an activity-based tariff system enabling the linking of health services provided directly to set tariff prices by the DoH based on the national average cost of each treatment. Commissioners pay the providers for the actual activity they carry out. As tariff prices are fixed, competition between providers therefore focused on the volume of activity, and as a result their income generation is not capped. With local committee commissioning, the tariff system remained the same but the prices were cut year after year in cash terms beginning from the 2011–2012 financial year. This meant that providers were faced with increased financial challenges and had no alternative but to reduce the cash amount that they spent on each treatment as well as aim to increase the volume of activity. An increase in activity volume meant that they were able to expect increasing amounts of funds transfers from commissioners. In other words, whilst providers expected an increasing amount of income from commissioners, the commissioners had fixed budgets to pay for these services. This disharmony between

[3] Initially called the Advisory Committee of Resource Allocation formula (HoC, 2013).

budget allocations for CCGs and providers was the third evidence of lack of reciprocity between budget calculations and commissioning ideals described in policy documents.

For providers, performativity criteria were to deliver the care at the standard required and remain within a balanced budget without running a large deficit. This meant that they were expected to deliver the service at or above required quality but remain at or below centrally determined tariff prices. If they were able to do this then CCGs were expected to pay providers at the actual volume of care that they provided. In other words, in terms of financial performativity the main aim of CCGs was to keep costs at or below tariff prices.

A third component of commissioning was the Quality Outcomes Framework (QOF) (Health and Social Care Information Centre, 2012). In order to keep an eye on quality standards, quality targets became stricter with deadlines for providers to meet them. Commissioners were expected to take quality targets into account when commissioning. Despite this, there were not any financial implications for hospitals when they met or failed to meet these quality targets. (There were some marginal financial penalties for GP surgeries if they failed to meet a limited number of primary care targets.)

When this change is considered from the perspective of clinician involvement in commissioning with hospitals, there is no evidence to show reciprocity between these policy ideals and financial processes to support clinicians to become involved in commissioning. For both PbR (for transfer of funds from commissioners to hospitals) and QOF (for consideration of quality standards in transferring funds from commissioners to hospitals) accounting technologies remained largely the same after the new commissioning bodies CCGs were established.

6.3 | Boundary spanners and their interaction with calculative practices

In the first subsection, we present data to explain how formal boundary spanners interacted with calculative practices. We will then turn to semi-formal boundary spanners in the next subsection and explain their interaction with calculative practices.

6.3.1 | Formal boundary spanners and calculative practices

At the national conference, there was a strong emphasis on the changes that commissioning was going through, in particular about how the clinicians as formal boundary spanners were expected to be more involved in decision-making. To facilitate CCGs that were formally led by clinicians during the process of transition, new advisory units were established. These units were regional support and consultancy units that provided the financial and managerial expertise newly formed CCGs would need to commission services from providers. At the conferences, there were several training and workshop opportunities for formal boundary spanners with both clinical and managerial responsibilities to learn about the practical aspects of commissioning as well as informing them about regional support units.

In these sessions, it was observed that the content included policy documents, centrally defined aims and objectives and principles of engagement between providers and purchasers. They were mostly presented and discussed at a high level and regarding broader aspects of commissioning. In relation to the funding formula, it was mentioned in one of the talks that work was underway to improve the formula used to allocate budget amounts to CCGs. The weighted personal allowance formula was mentioned as an alternative, but it was explained that further work needed to be done to make it work in practice.

As a consequence, our finding above regarding reciprocity was confirmed. The funding of CCGs to a large extent remained the same as in previous forms of commissioning. This was a first indication for researchers that this confirmed lack of reciprocity between policy aims and calculative practices could have implications for IODM for commissioning.

On the other hand, according to observation notes taken in two workshops and two keynote speeches, the process of transferring funds from CCGs to providers was explained in reference to the existing PbR methodology as the main practice of allocation of funds. Every time PbR was mentioned, the speakers repeated that local factors were taken into account and local commissioning teams were considering various aspects of particular services and were making adjustments to PbR figures when necessary. This was further evidence indicating that local issues that we had observed in semi-formal meetings at between CCG A and B and Hospitals A and B were not exceptions, and other local teams were dealing with similar issues. This evidence indicated for us that there was not complete reciprocity between the calculative practices described in policy documents (balanced budget expectation and meeting quality standards at the same time) and local practices in some instances. Further refinement of calculative practices to meet the needs of local settings was deemed to be essential.

In our follow-up interviews after the conference, three formal boundary spanners (Commissioners E, G and H) commented on the information overload. These individuals were all clinicians and had multiple roles as both commissioner and provider. In relation to calculative practices, a high volume and variety of information (costing and activity level) were available to CCGs. The same interviewees also commented on the difficulty in finding high quality, timely, and relevant costing and activity information that they could use for decision-making. Several sources provided this type of information, including NHS England directives with guidelines, policy documents with broad definition of financial targets (balanced budget and meeting key quality standards), multiple data and reports from the reports of organisations employing the boundary spanners, information from external third parties (such as patient representative groups) and multiple regulators (such as the Care Quality Commission, the National Institute for Health and Care Excellence, the NHS Trust Development Authority, the Department of Health, etc.) with a variety of quality indicators. The main difficulty according to these interviewees was to be able to sift through and select relevant financial information, activity-level data and quality-related information that they could use for optimal IODM, given their limited time and experience in their new roles.

In relation to the provision of timely and actionable information from provider organisations, the research data showed that information about the volume of activity in hospitals and number of referrals that the hospitals received were sometimes 5 or 6 months old by the time these data reached the CCGs. As a consequence, the activity data were outdated and providers were spending time negotiating what needed to be paid for past activities rather than spending more time planning for current or future activities. This evidence showed that despite legislation (Department of Health, 2012) indicating that commissioning would be done based on actual figures, in practice commissioning decisions continued to be based on historical data. Commissioners as formal boundary spanners mentioned that projections were taken into account but again historical data were used to make some realistic predictions.

There were other challenges that commissioners faced as formal boundary spanners. Clinician 4 explained one situation as follows:

> We put together a business case for a new treatment based on the activity and referral information we had in our practice record. But the CCG rejected this proposal because it was in an unacceptable [i.e. unfamiliar] format.

The evidence indicated that there were differences in the format of the activity and referral data between the different providers and commissioners. Commissioner G put it this way:

> Our [CCG] practice's own data system does not reconcile to that of the large provider, and their reported commissioning activity is difficult for our practice to grasp and refer to in making decisions.

Commissioner C (with triple formal commissioning roles) spoke for many in noting that CCG commissioning was far more challenging than the previous forms of commissioning. He emphasised that an added challenge in IODM was the government's requirements for increased savings on the purchaser side and also shared that the performance

assessment expectation of CCGs (HSCA 2012 §14Z16) was another issue formal boundary spanners had to be mindful of. Targets for costs and activity levels were imposed on CCGs by NHS England to stay within budgets, and Commissioners E and H perceived these targets as constraining. Some commissioners also felt a lack of fairness in provider-commissioner negotiations since sometimes a small CCG had to commission services from much bigger entities (e.g. hospitals) than itself.

The issues noted above turned out to be widespread problems in inter-organisational communication. This resulted in some provider hospitals and their representatives losing interest and the discontinuation of producing new business cases. This evidence showed that formal boundary spanners' work was adversely affected by the lack of synchronicities in the timing of reports as well as the lack of relevant content that the providers were reporting. Their enthusiasm for taking an active role in IODM was also curbed.

6.3.2 | Summary of findings for formal boundary spanners and calculative practices

One main finding from the analysis of data in relation to formal boundary spanners and interviews that were conducted after national conferences was that there was information overload for formal boundary spanners. It is worth noting that many of these individuals were usually clinicians with multiple commissioning roles. For example, as indicated in Table 1, Commissioners G and H had dual and triple roles, respectively. As a consequence of this, they were possibly receiving more information than others who did not have multiple roles. It was challenging in particular for these individuals to find and use the most relevant financial and performance-related information in different decision-making settings of commissioning.

In relation to accounting technologies, budget allocations and spending reports were essential pieces of information used in committee meetings by formal boundary spanners. One particular aspect of these reports was the differences in time periods the reports covered. Providers usually reported historical data, whereas CCGs were making plans and projections of future activity. As a consequence of this, the volumes of activity reported by providers and volumes of activity reported by CCGs were not consistent. Although the guidance in the new commissioning policy documents was to use actual volumes of activity for transfer of funds from CCGs to providers, this was difficult to achieve in practice. Providers continued to report in the format that was compatible with their existing systems and relied on historical data, whereas CCGs were expecting to discuss current volumes and future predictions. This evidence led to the conclusion that time periods of accounting reports for volumes and costs of activities were different in CCGs than in providers. As a consequence, formal boundary spanners found it difficult to understand these reports and how to make sense of these different forms of accounting technologies.

Another important issue according to CCGs was the way their performance was being monitored. The expected volumes of demand and associated costs were planned in CCG budgets when they received their funds. These figures were fixed and given. In addition to this, in policy guidelines and in their performance targets, CCG were expected to make some savings. According to formal boundary spanners (Commissioners C and F in particular), this made performance targets of CCGs very demanding and (according to some) almost impossible to meet. Furthermore, some CCG representatives mentioned that the size of some CCGs as an organisation was significantly smaller than certain provider organisations that they worked with. This caused concern in particular when sharing of performance-related data between CCGs and providers as their systems were significantly different from each other.

6.3.3 | Semi-formal boundary spanners and calculative practices

We observed semi-formal boundary spanners in meetings 1–4 summarised in Table 2.

These individuals were from different backgrounds and were meeting in order to discuss commissioning issues that were causing problems between hospitals and CCGs. Below we summarise each situation separately for problems between Hospital A and CCG A and then between Hospital B and CCG B.

Meetings 1 and 3 between semi-formal boundary spanners from Hospital A and CCG A

Payments for increasing volumes of accident and emergency (A&E) referrals to Hospital A had recently become an important issue in commissioning. According to discussions in Meeting 1 and interview data from Managers 1 and 2, the hospital was not receiving sufficient income transfer from CCG A to pay for some of the A&E referrals. At Meeting 1, one of the performance measures discussed was the waiting time target for A&E services. This was one of the key performance indicators of quality for Hospital A and was within expected ranges and therefore did not cause any concerns. On the other hand, the volume of activity reported by Hospital A did not reconcile with the volume of activity in CCG A records. The large discrepancy was thought to have emerged from actual activity that CCG A expected and the past activity that Hospital A reported. At the end of Meeting 1, these semi-formal boundary spanners decided to meet again to discuss the differences in volumes of activity. In Meeting 3, Manager 1 joined Manager 2 and brought historical records of Hospital A and showed that the volume of activity was increasing year on year. As a consequence, they were expecting higher income even if the price per activity remained the same. Semi-formal boundary spanners of CCG A however explained in Meeting 3 that despite an increase in volume, the costs associated with A&E services in Hospital A were declining (they referred to this as a good sign of efficiency) and they were currently lower than centrally determined tariff prices. In addition to this, they explained that CCG budget allocation would not allow them to overspend. As a consequence of this explanation, semi-formal boundary spanners of CCG A offered to pay around 10% less than the prices that were centrally determined. However, these semi-formal boundary spanners accepted the volumes of activity presented by Hospital A. With this suggestion, the performance targets of both Hospital A and CCG A were met, but a new set of rules for commissioning between them were devised as a consequence of discussions and sharing of information between the two groups of semi-formal boundary spanners. One of the managers (4) in CCG A said the following to explain their position:

> … We do not have always sufficient funds to pay for all the services we commission.… We have to suggest possible alternatives to providers… For example, paying less of a certain percentage and agree for this to be paid later or carry it forward in the accounts…

Although this was not seen as an ideal way of commissioning, the Director of Finance as a semi-formal boundary spanner from Hospital A commented on the above-described situation as follows:

> We do not have any other options really… Commissioners say there is not sufficient funds … they offer to pay less but will probably pay the remaining 10% at a future date?….There is also now a possibility for them to commission from private providers… It seems like it is inevitable that the commissioners might choose them… in particular if they provide the service at a lower price.

In relation to these types of arrangements between semi-formal boundary spanners, we asked one of the formal boundary spanners (Accountant 3) to comment. His response was as follows:

> At times almost everything other than the finances gets pushed to one side because of the needs to be met within limited resources … We simply cannot pay for everything… as there is not enough money in the organisation to do that.

Meetings 2 and 4 between semi-formal boundary spanners from Hospital B and CCG

There was an ongoing issue for several years between Hospital B and CCG B about rehabilitative care in terms of increasing volumes of activity and delayed payments that the hospital received for that service. A series of meetings were held with an aim to resolve some aspects of this long standing issue. We observed two of those meetings 3 months apart to record the progress and study use of calculative practices in that process.

In Meeting 2, the Director of Commissioning and Business from Hospital B explained the problem and how delayed payments were affecting the performance of rehabilitative care. In particular, the concern was that delayed payments were affecting future planning for the service and having an influence on the performance of the team. He explained that because of the demographics and ageing population in their region, the hospital was providing a large variety and volume of rehabilitative care. Despite this, they were not able to receive the funds on time and were not able to plan properly for the future. He also argued that this trend was expected to continue and if payments were not received as expected then the performance of the hospital would face serious challenges. He asked the CCG clinician representative for support to work with the CCG so that delayed payments of the past few years would be corrected and a new payment arrangement would be established in line with the new commissioning structure. Representatives of Hospital B used accounting information (such as increasing deficit in rehabilitative care services) to argue that the deficit in rehabilitative care was affecting the overall deficit of Hospital B. In addition to this, they supplied increasing numbers of bed occupancy for rehabilitative care as well as increasing numbers of patients waiting to be discharged from rehabilitative care to show the bottlenecks and difficulties they were facing. In meeting 4, the CCG representative used public health information to show how they estimated the possible increase in rehabilitative care and explained that the increase was not at an 'alarming rate' and appeared to be steady compared to previous years. In addition to this, the public health representative brought to the meeting some guideline documents explaining how CCG B received their income in order to explain to the hospital representative the funding principles of the CCG.

As a consequence, the argument of CCG B at the end of Meeting 4 was to continue to fund rehabilitative care as they used to. There was not any significant concern according to them in doing this and their practice was in line with their planning according to public health statistics. The agreement at the end of Meeting 4 was for the CCG to pay around 20% less than the amount calculated according to the volume of activity in previous years.

A semi-formal boundary spanner (Manager 3) who contributed to commissioning discussions from Hospital B commented on the outcome of meeting 4 as follows:

> The support from the new form of commissioning is just enough to keep continuing to how we used to do things and not enough to bring any serious change.

When asked about the outcomes of local meetings observed, a formal boundary spanner from Hospital B (Clinician 1) commented as follows:

> Clinical considerations need to drive the CCGs more than at present. These need to be put in the context of financial constraints, rather than financial constraints entirely dictating what is going to happen.

The above evidence indicated therefore that formal boundary spanners were aware of the challenges that semi-formal boundary spanners were facing. Similarly, the GPs from CCG B felt that CCGs were bound by a top-down, financially driven process. A second formal boundary spanner (Clinician 4) again reflected about this situation as follows:

> Clinical commissioning is a misnomer. It has been largely based on mechanics to try and reduce the large deficits in commissioning.

6.3.4 | Summary of findings for semi-formal boundary spanners and calculative practices

Local commissioning meetings observed made it clear that each set of meetings were aimed at addressing particular services that caused concern mainly to provider organisations. A negotiation process took place between semi-formal boundary spanners from CCGs and providers. In these meetings, a number of different sources of information were used by semi-formal boundary spanners: activity volumes, costs for groups of activity, qualitative indicators (such as waiting time targets), management information such as (bed occupancy levels), as well as public health needs data and demographics. These meetings were spaces where calculative practices of accounting met with other data such as public health statistics and needs to make informed decisions.

With accounting information Hospital A was aiming to demonstrate that they were not being paid sufficiently and this was affecting their performance as there was an upward trend in the volume of A&E patients. On the other hand, CCG A checked quality indicators and costs of Hospital A and argued that they had met A&E quality targets and also had costs slightly below national averages. In addition to this, CCG A was asked to make some savings as per their performance targets. As a consequence, they offered to pay but at a discounted level. In this example, a variety of accounting technologies and performance measures were used to agree on reduced prices for A&E services.

For Hospital B, the issue was about continued delaying of payments which were not being realized for several years. This accumulation was affecting their financial performance. They supported their argument with public health data that they expected demand to increase and were not willing to continue accepting delaying of payments. However, this was not accepted by semi-formal boundary spanners of CCG B for two reasons. The first one was that according to their public health records and predictions, the demand was increasing at a steady pace and as expected. Second, they explained the way a budget was allocated to CCG based on these predictions. Unless there was a change in the way they received their budget, there was no reason for them to change the way they were paying for commissioning this service. The agreement reached between semi-formal boundary spanners was to continue with delaying payments to the following financial year, similar to what they had been doing before.

7 | DISCUSSION

As stated in the Introduction, to address the gap in management accounting studies (Anderson et al., 2015) this paper studies how boundary spanners use (and influence the use of) calculative practices (Miller, 2001) in IODM to achieve performativity ideals defined by government programmes. Unlike previous studies of boundary spanners in public sector accounting (Abernethy et al., 2004; Anderson & Dekker, 2014), in this paper we propose that boundary spanners are not always an apparent and easily identifiable group of actors. A number of studies in public sector management indicated that boundary spanners have varied roles and responsibilities. For example, Qureshi, Sutter, and Bhatt (2018) showed how influential boundary spanners could be in the social context of extreme poverty and inequality. Their study also showed that various types of boundary spanners were involved in making changes and not all of them had to have formal roles. In earlier studies, Williams (2002, 2013) mentioned that dedicated boundary spanners often lack the formal status of manager and leaders. He also mentioned that sufficient commitment and understanding of mainstream managers are essential for inter-organisational work to take place. To contribute to this discussion, we propose to group boundary spanners as formal and semi-formal with respect to the empirical data and participants of our study. In other empirical settings, boundary spanners could be categorized differently. Future studies could look at the composition of boundary spanners more carefully and work on potential parameters to detect possible categorization of boundary spanners.

In accounting literature, although previous studies highlighted the selection and appointment of boundary spanners as part of a formal control process of the organisation, they did not explain in detail the work of boundary

spanners who are not formally appointed to their role. When facing difficulties in a large organisation such as the NHS, local teams might need to interact and communicate for decision-making. In these situations, certain individuals acted as semi-formal boundary spanners and contributed significantly to IODM. Unless these IODM situations were observed and analysed, it could have been easy to miss that these boundary spanners existed and they had an active role in decision-making. Williams (2013) suggested that it was essential for mainstream managers to support the work of dedicated boundary spanners in public sector management. Our study shows that semi-formal boundary spanners had the power and resources to make inter-organisational decisions without direct involvement or approval of formal boundary spanners. Together with this, it is essential to note that decisions of these semi-formal boundary spanners were ultimately in line with performativity ideals of relevant government programmes.

On the other hand, despite attempts at policy documents and formal recruitment channels, it was not always possible to appoint formal boundary spanners in a standardised way. For example, local commissioning committee members were not recruited in the same fashion according to the committees that we were able to reach. Furthermore, the way new clinical professionals were appointed to these committees as new formal boundary spanners was not consistent. Some of these newly appointed formal boundary spanners found it difficult to fit in these roles and contribute to the decision-making process, in particular when they had multiple roles in relation to commissioning. They then distanced themselves from these committees. Compared to previous studies of NHS commissioning (Chambers et al., 2013), this study contributed by highlighting the differences between formally appointed boundary spanners and semi-formal boundary spanners and the various ways they participated in IODM for commissioning.

Second, the study introduced the concept of 'reciprocity' (Miller, 1990, 2001) to studies of IODM. The evidence showed that reciprocity between calculative practices and the aims of IODM is an important aspect that is worth studying further. Analysis of policy documents in this study indicated that there was an apparent lack of reciprocity (or limited reciprocity) between calculative practices and performativity ideals of government programmes. Fieldwork data provided further evidence that the lack of reciprocity is likely to cause problems between organisations and result in a lack of standard practices when boundary spanners interact with calculative practices for decision-making. This particular finding is interesting within the context of performative work conceptualisation of Buenza and Ferraro (2019). According to their definition of performative work, calculative devices are structures that constrain action. Performative work aims at ensuring the circulation of these calculative devices. What the concept of reciprocity does as an addition to this conceptualisation is to question whether particular calculative devices do in fact exist to achieve the ideals of performativity projects. For that reason, reciprocity provides a point of inquiry to search for appropriate calculative practices that are adequate to meet the performativity ideals. It provides a prior state to study performative work, and how it evolves in situations where there is no clear calculative device dedicated for the performativity project at hand.

In relation to how the two groups of boundary spanners interacted with calculative practices, the evidence indicated significant differences. In central and regional committees, formal boundary spanners used calculative practices to communicate and share information mainly for reconciliation purposes of their financial position. These formal boundary spanners mentioned difficulties of meeting performance aims. They also agreed that local teams were facing a number of challenges in commissioning agreements, but as central representatives, they were not in a position to suggest alternative calculative practices. Instead, these centrally located formal boundary spanners referred to both financial accounting rules (about the calculation of fund allocations to CCGs and centrally expected savings every financial year) as well as non-financial performance targets (maintaining care quality standards and delivering higher volumes of activity for hospitals) to reinforce clear boundaries between providers and purchasers.

In local teams, however, semi-formal boundary spanners invested time and effort to resolve various practical problems that arose as a consequence of payments that their organisations received from the centre. Hospitals as the main service providers of NHS appeared as either not receiving or receiving delayed and reduced payments from CCGs as purchasers. Despite provider attempts in meetings to show that this situation was causing them to not be able to make proper long-term plans as well as result in increased deficits (which in turn threatened the future of certain services), CCG boundary spanners brought additional non-financial information (such as public health needs, waiting

time targets, etc.) to make their case in order to suggest alternative calculative practices. These semi-formal boundary spanners from CCGs were skilful at using calculative practices of financial and managerial accounting together with additional non-accounting data in building their argument and making their suggestions accepted by other semi-formal boundary spanners. This conclusion helped us to contribute to theoretical issues as explained in the next section.

This study has managerial and policy implications. First, it indicates that micro-relations between boundary spanners are influential in IODM. Not only formal but a number of semi-formal boundary spanners are involved in these IODM scenarios. It is essential that policymakers are aware of the role and influence of these individuals in IODM. It could be possible to reach, communicate and train these individuals so that a more coherent approach could be followed in IODM. Second, this study indicates that for policymakers to achieve the performance aims of government programmes, it is essential that an appropriate set of accounting technologies are in place. A lack of this has far reaching implications. Even in our relatively limited sample, it was evident that lack of appropriate accounting technologies caused problems in IODM. This resulted in a multiplicity of substitute practices devised by various semi-formal boundary spanners.

7.1 | Theoretical implications

The first theoretical implication is about the concept of boundary and how it is defined. We use conceptualisations of Llewellyn (1994) to explain how the interaction between boundary spanners and calculative practices contribute to the definition of boundaries in inter-organisational spaces. The second aspect of our theoretical discussion is about micro-foundations of performativity debate (Beunza & Ferraro, 2019), and how performative actions of actors evolve in situations where there is no particular performative device to meet the desired aims of performativity projects.

According to the study findings, the way some representatives were influential as semi-formal boundary spanners had implications on how boundaries between CCGs and hospitals were influenced. Semi-formal boundary spanners were able to orchestrate both their own organisation's accounting technologies and the technologies that hospital representatives were using, together with other non-accounting data that affected the service provision of CCGs and providers. Their actions demonstrated that they were able to represent interests of not only their organisation but also the interests of other organisations that they were in IODM scenarios. In building their argument, these individuals used government programmes and centrally determined rules and aims as the ultimate performativity aims. We conclude that their actions primarily aimed at adhering to the financial constraints and non-financial performance aims of these programmes. In addition to this, they prioritized the health needs of the population together with performance targets of hospitals, in particular quality and cost targets – in this instance satisfactory A&E waiting times and costs when suggesting alternative calculative practices. With this finding, we therefore contribute towards Llewellyn's definition of boundaries by emphasising the role of semi-formal boundary spanners. With the use of accounting technologies in local decision-making teams, semi-formal boundary spanners represented not only the interests of their organisation but also broader interests of the public as well as the interests of the organisations that they were working for. Furthermore, we provide evidence that these boundary spanners used other supplementary information intensely in local decision-making situations. We therefore propose that the use of non-accounting information together with calculative practices helps semi-formal boundary spanners to make their case. This was evident as CCG boundary spanners were effective in influencing boundary spanners from hospitals to agree with them. We suggest that calculative practices (financial and non-financial) are strong tools capable of redefining boundaries between organisations when influential boundary spanners use them to meet the performativity ideals of government programmes.

In our data analysis, the search for reciprocity enabled us to show the lack of specific calculative practices to reach performativity ideals of government programmes studied. This finding helped us to reflect on what boundary spanners do in this situation. We concluded that formal and semi-formal boundary spanners interacted differently with calculative practices as explained above. What is interesting to note here is that semi-formal boundary spanners were

able to devise different and numerous alternative calculative practices. Moreover, they were able to offer new interpretations and influence other semi-formal boundary spanners in order to reach an inter-organisational decision. It is therefore possible to suggest that these semi-formal boundary spanners were dispersed around the periphery of the organisation rather than centrally located as formal boundary spanners. These semi-formal boundary spanners were active contributors to IODM and designing of calculative practices. This finding is in line with the performative work definitions of Buenza and Ferraro (2019) where certain peripheral actors who are not central high level managers assume catalysing actions across different fields of activity.

Our emphasis on reciprocity of calculative practices and government programmes offers an opportunity to further our understanding of performative work in relation to this type of boundary spanners. These peripheral boundary spanners skillfully orchestrate financial and non-financial performance measures in designing alternative calculative practices. Semi-formal boundary spanners in our study were the catalysts of new calculative practices which continued to turn individuals into calculable objects (Kurunmaki et al., 2016). It is important to emphasise that our data are collected in a public sector setting and it was imperative to deliver the service – hence boundary spanners were obliged to reach a decision. This makes our case significantly different than studies conducted in private sector settings (e.g. Beunza and Ferraro, 2019) where actors might decide not to go ahead with a particular programme and/or not to use a particular calculative device.

8 | CONCLUSION

In conclusion, our account contributed to IODM studies in three ways. First, it showed that calculative practices help and at times hinder boundary spanners depending on their role and responsibilities in particular situations of IODM. Reciprocity is an important concept to consider in these situations to see to what extent calculative practices that are used by boundary spanners are adequate to implement centrally defined performativity ideals. Our study showed that when they are not adequate then this lack could become a cause of conflict, tension and disagreement in IODM. This contribution adds a new dimension to studies of conflict between public sector organisations. This tension then causes some semi-formal boundary spanners to devise alternative calculative practices. Although not favoured by other semi-formal boundary spanners, these alternative practices are ultimately implemented, causing inter-organisational decisions to be one sided. In these situations, therefore, calculative practices help certain boundary spanners to meet performativity ideals of government programmes and hinder other boundary spanners to meet their organisation's practices, performance and plans.

Our research methodology has the usual limitations of qualitative research and case-based design together with researcher and interviewee bias. We aimed to address those limitations through triangulation and use of multiple data sources. We hope that the new concepts we introduced such as formal and semi-formal boundary spanners and reciprocity between calculative practices and programmes influencing IODM will help advance research in this literature. Furthermore, we propose that study of micro-relations of IODM between boundary spanners have the potential to contribute to performativity studies. Boundary spanners as calculable objects are both strong and fragile when they interact with calculative practices. They are usually governed by calculative practices (Kurunmaki et al., 2016) and in situations when they are expected to find alternative calculative practices then these calculable objects are governed by ultimate performativity ideals of government programmes.

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