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The role of administrative capacity in complementing performance measurement systems

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Abstract

With the rise of New Public Management, regulators have increasingly turned to quantitative systems of performance measurement for assessing and monitoring public organizations. At the same time, there has been a swelling focus on service users as judges of organizational performance. As many have observed, regulatory initiatives which emphasize performance measurement and user-orientation are enacted quite differently across different countries, public sector contexts, and individual organizations. One reason for this variation is public organizations' varying and sometimes inadequate capacities for compiling performance information and implementing new management practices. In this paper, we draw on 87 interviews and a multiple case study of German hospitals and prisons to investigate how different types of public organizations create and mobilize management practices around their respective users – patients and prisoners. We identified three approaches to accounting for users, which were consistent across cases: hospitals and prisons attempted to (i) approximate users' views through an

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organizational lens, (ii) approximate users' views through a professional lens, and (iii) trace user movements. While these modes of accounting were broadly similar, hospitals and prisons varied greatly in how they incorporated users' views and movements into performance management practice. In order to better understand how different public organizations choose to gather, process, and act on information related to service users, we focused on the role of administrative capacity. We identified different interactions and trade-offs among technical, knowledge, managerial, and economic capacities, which shaped how users were accounted for and integrated into local management routines. Our study makes two contributions. Firstly, we advance empirical studies of performance measurement and regulation by illustrating how different organizations interpret and respond to regulatory demands. Secondly, we draw attention to the notion of administrative capacity and explore its role in shaping the behavior of regulated organizations.

Keywords: public sector; capacity; accounting; performance management; service user

Introduction

With the rise of New Public Management (NPM), many countries have turned to systems of performance measurement for assessing and monitoring public organizations (Hood 1991). Various incarnations of 'enforced self-regulation' (Ayres and Braithwaite 1992; Baldwin and Cave 1999) have entrusted organizations to devise and implement their own routines for measuring and managing performance locally (Gilad 2012; Goretzki et al. 2018; Huising and Silbey 2013). Managers often rely on self-generated key performance indicators, written reports, customer surveys, and protocols in order to generate actionable information and coordinate day-to-day activity 2013: 383). In numerous cases, managers view the development and usage of local management tools as a way of complementing regulatory performance measurement systems (PMS) (Carlsson-Wall et al. 2019; Denis et al. 2006; Lawton et al. 2000; Modell 2003; Modell and Wiesel 2008). These modes of complementation vary greatly across different organizational contexts. This is especially true in the public sector, where organizations have varying and sometimes inadequate capacities for compiling performance information and implementing new management practices (cf. Lodge and Wegrich 2014). Exploring these capacities is important, as they support new measurement tools and management techniques, which in turn open up new ways of articulating, debating, and practising public service delivery (Kurunmäki and Miller 2008).

One specific way in which public organizations are expected to account for and manage organizational performance is through *service users*. Over the past several decades, we have witnessed a gradual shift towards a more user-oriented public sector (Iloga Balep and Junne 2020; Van Dooren et al. 2015). In various reform initiatives, the users of public services have been addressed as knowledgeable consumers, whose opinions ought to play a key role in assessing the quality of service provision (Köppe et al. 2016; Pflueger 2016). While public service organizations and professional associations have arguably always attended to the problems and opinions of service users (Hasenfeld 2010), the rise of a user-oriented public management paradigm has brought with it new expectations surrounding the role of users in performance measurement and management. In many cases, public organizations are urged to construct quantitative performance management systems which include service users' opinions and behaviours. Some of the most well-known tools in this regard include the customer survey (Pflueger 2016) and the Balanced Scorecard (Qu and Cooper 2011). Yet, in many regulatory regimes, there are no direct stipulations of how such systems should be designed or used. This has opened up a wide range of possibilities for how managers transform users' opinions and movements into information they deem useful for performance management.

In this paper, we draw on a multiple case study of German hospitals and prisons to investigate how different types of public organizations create and mobilize

management practices around their respective users – patients and prisoners. On the basis of 87 interviews with managers and domain experts working in these organizations, we found that users were not only viewed as vulnerable claimants of care, but also as centrally important resources for assessing organizational performance and managing day-to-day activity. Against this background, we set out to trace the ways in which hospitals and prisons account for service users, and attempt to embed representations of users into local management practice.

Our study has two distinct, yet interrelated aims. Firstly, we seek to understand how different organizations account for service users. We identified three basic approaches to accounting for users, which were consistent across cases: hospitals and prisons attempted to (i) approximate users' views through an organizational lens, (ii) approximate users' views through a professional lens, and (iii) trace user movements. Although these techniques are broadly similar, they were enacted through a multitude of calculative and non-calculative practices, which varied considerably between hospitals and prisons. Secondly, our aim was to understand the different administrative capacities which support and shape these distinct local initiatives. More specifically, we focused on how four capacity types – what we distinguished as technical, knowledge, managerial, and economic capacities – helped hospitals and prisons link up multiple ways of accounting for users with distinct modes of management. We identified different interactions and trade-offs among capacity types, which influenced how users were accounted for and integrated into local management routines.

Our study makes contributions relevant for both regulatory theory and practice. We advance empirical studies of performance measurement and regulation by illustrating how different organizations – hospitals and prisons – interpret and attempt to complement regulatory systems. This highlights how organizations respond to new pressures to measure and manage performance, and could provide regulators with insights about how organizations address new reforms. By focusing on the German case, we provide a contrast to the Anglo-Saxon context by looking at a regulatory regime which operates through mutualism and negotiation, rather than strict regulatory oversight (Hood et al. 2004). The comparison of hospitals and prisons presents an example of 'diverse cases' (Gerring 2007), which helps establish a highly varied and more representative set of findings.

Moreover, we draw attention to the notion of administrative capacity and explore its role in shaping the behaviour of regulated organizations. The notion of capacity is important for three reasons: (a) capacity is helpful for conceptualizing a wide variety of calculative practices, expertise, managerial tools, and economic strategies through which accounting for users is made possible; (b) through the lens of capacity, we are able to observe the interactions and trade-offs which occur when different types of organizations attempt to mobilize local modes of management; and (c) the notion of capacity allows us to conceptualize the conditions and consequences associated with mobilizing local management

practices around the service user, .i.e. the new capacities which are generated when users are accounted for and incorporated into organizational practice.

The paper is structured as follows. We explore how the enactment of user-orientation is potentially shaped and supported through different forms of administrative capacity. Then, we outline how user-orientation and regulatory performance management are related to one another in the German public sector. After discussing our study design and research methods, we present our main findings. The paper ends with a discussion and an outlook to future research.

Enacting user-orientation – the role of administrative capacity

While many regulatory regimes set the basic parameters for user-orientation, regulated organizations are faced with the task of designing and implementing systems which incorporate users. As many have observed, regulatory initiatives (e.g. those emphasizing performance measurement or user-orientation) are enacted within organizations much differently than envisioned by policymakers (Lapsley 2008; Modell 2001). Public service managers and domain experts working in regulated organizations often construct their own methods of measurement and management in ways they view as complementary to external systems. These local practices are not always valued in terms of their representativeness, but for their usefulness in managing day-to-day activity (cf. Jordan and Messner 2012). Thus, the swelling focus on user-orientation is enacted quite differently across various countries, public sector contexts, and individual organizations. We suggest that the situated enactment of user-orientation can be traced back to the varying ways in which organizations draw upon *administrative capacity* (cf. Lodge and Wegrich 2014). Different types of public organizations have access to diverse arrangements of technology, domain-specific knowledge, management tools, and economic resources. Consequentially, we argue that public organizations display disimilar competencies for mobilizing local practices of measurement and management around service users. Gathering insights from previous research and our own empirical cases, we have distinguished four different types of capacity which can shape how organizations devise local tools and practices.

Firstly, previous literature has shown how public organizations vary in how they are able to digitalize workflows and make use of computerized systems. In the healthcare sector, for example, hospitals exhibit varying competencies when it comes to constructing IT infrastructures and making them inter-operable across departments (Monteiro et al. 2013). Electronic patient record systems and clinical pathways (Gebreiter 2017) are developed differently, depending on how managers and professional staff seek to establish performance standards, monitor activity, or coordinate different parts of the organization (Berg and Bowker 1997). We suggest that the development, maintenance, and use of systems for collecting, analysing and disseminating information electronically demonstrates *technical capacity.* Public organizations have arguably distinct forms of technical capacity, which

could be used to account for service users; furthermore, in some cases, public organizations may lack technical capacity, i.e. the means to implement or use digital tools. In our cases, for example, hospitals commonly deployed electronic patient surveys; prisons did not digitize prisoner feedback to the same degree, and relied more on face-to-face meetings for collecting information from and about users.

Secondly, research has highlighted the important role of expertise in shaping practices of measurement and management in organizations. Expertise plays a large role in public sector organizations, where services are skills oriented and based on professional-client interactions (Wieczorek et al. 2015). Professional actors such as medical practitioners, nurses, or social workers, have distinct guiding principles and ideas about what constitutes 'good' performance (Dahler-Larsen 2019; Donabedian 1981). Through access to different networks of colleagues and references to different vocational values, these actors perform distinct forms of expert knowledge (Knox et al. 2007). Consequentially, public organizations are able to draw on various forms of what we term *knowledge capacity*; this form of capacity, in turn, influences the routines, processes, and objects which become the focus of performance measurement. For example, the notion of value-based healthcare (Porter and Guth 2012) has supported the adoption of patient experience questionnaires in German hospitals. In German prisons, a professional focus on re-socialization and security has placed emphasis on ad hoc assessments of prisoners' health in addition to more personalized assessments of prisoner opinions.

Thirdly, studies have shown that organizational staff often draw on standardized sets of managerial practices and tools (Jacobs 2005; Kurunmäki 2004; Power 1997). These tools, however, are operationalized differently across different organizational contexts. Public sector organizations employ management staff, which have distinct ways of framing problems and solutions, varying degrees of practical experience, and different ways of putting numbers to use. Moreover, due to contextual and historically contingent developments, public organizations have developed different preferences for particular management and accounting tools; for example, while some public organizations have experience working with Lean management (Hultin et al., 2020), others have relied on the Balanced Scorecard (Busco and Quattrone 2015), or the customer survey (Pflueger 2016). Public organizations thus harness diverse forms of what we call *managerial capacity* – the ability to construct, implement and use management tools, protocols, or templates, which allow staff to construct plans, coordinate activity, and structure routines. In the case of German hospitals, standardized quality management systems help staff quantify user satisfaction and embed satisfaction scores in performance meetings. German prisons, however, rely on formalized protocols for documenting exchanges between staff and prisoners that help assess potential behavioral issues.

Fourthly, as discussed throughout accounting and public administration research, NPM has left many public organizations to do 'more with less' (Arnaboldi et al.

2015; Gray and Hood 2007) – to develop new data sources and construct innovative measurement practices, while also adhering to stricter financial controls. At the same time, increased marketization (Kurunmäki et al. 2016) has led organizations like hospitals (Kurunmäki 1999) and prisons (Cooper and Taylor 2005) to take on identities as private or semi-private economic actors, whose goals revolve around strategic investments in performance management (Briers and Chua 2001). Given the variety of ways in which NPM and marketization reforms have been enacted in different contexts (Hood 1995), we suggest that public organizations have developed distinct forms of *economic capacity*, i.e. different abilities to act strategically on markets for services, or invest in tools and practices which managers find useful for steering toward economic goals. German hospitals, for example, invest in outside consultancy which can help optimize patient pathways. In the case of German prisons, budgetary constraints place limits on how managers invest in new management tools or practices, which would account for service users.

In sum, it is important to note that these four capacity types represent broad prerequisites for mobilizing performance measurement and management practices around service users. In concrete empirical cases, most of these capacities are interlinked. Consider, for instance, how the development of computerized systems (supported by technical capacity), or the implementation of managerial tools such as the customer survey (supported by managerial capacity) are influenced by the ability to invest monetary funds (economic capacity). Alternatively, one could argue that access to professional expertise (knowledge capacity) influences the ways in which organizations develop and use digital systems to account for users (technical capacity). In this regard, the different administrative capacity types provide an analytical distinction, which in reality becomes notably more complex. The notion of capacity nevertheless allows us to conceptualize a wide variety of practices, which make the mobilization of performance management around users possible. Moreover, the distinction between capacity types helps us understand the various trade-offs, which influence how organizations account for users and embed these users into management routines. Thus, beyond identifying *which* forms of administrative capacity exist in organizations, we seek to uncover *how* different public organizations choose to gather, process, and act on information related to service users.

The next two sections introduce our study's context and the methodology of our multiple case study approach. We then proceed to our findings on how different administrative capacities shape the ways in which measurement and management practices are mobilized around service users.

Case context: accounting for services users in Germany

The ideals of NPM have been alive and well in Germany since the early 2000s. On the one hand, reforms have emphasized numerical targets and indicators for

evaluating the performance of individual organizations. Hospitals and prisons have been increasingly tasked with delivering performance metrics to external stakeholders and more than ever, regulators rely on instruments of quantification to identify poor performance and justify interventions into organizational activity. On the other hand, much like in the Anglo-Saxon context, NPM-style reforms in Germany have placed increased emphasis on user-orientation. The rhetoric of regulatory reform has shifted to ascribe public service users with multiple roles (Ewert 2012) – users are viewed as entitled and protected citizens (Ewert 2011), as well as empowered decision-makers and consumers (Köppe et al. 2016). In the hospital sector, a focus on users has come with a turn toward 'value-based healthcare' (Porter and Guth 2012). Under this paradigm, hospitals ought to include patients in the assessment of quality; patient experiences should be taken seriously as a part of improving the efficiency and value of service delivery. In the prison sector, a focus on users has revolved around the possibilities of re-socializing prisoners. Through the lens of re-socialization, prisoners' participation in the assessment of services is viewed as paramount to improving prison performance and managing day-to-day activity.

While the push towards user orientation has been relatively strong in Germany, regulators have not (yet) instituted comprehensive instruments for collecting feedback from service users. At the time of this writing, there are few national or regional systems which stipulate how service providers should incorporate patients and prisoners into management practice. This is not necessarily an act of ignorance on behalf of regulators. Rather, service providers are expected to attend to users' opinions and experiences as they see fit. So, while there are few on-going surveys of patients or prisoners on the national or regional levels, regulators often assume that individual organizations are integrating user input at the local level. This sort of 'intentional blindness'[2] towards organizational engagement with individual users is addressed through system level controls. In healthcare, auditors check hospitals' quality management systems, which in most cases include some form of patient survey. Prisons are also subjects of second-order controls, which check whether prisoners are being attended to by prison staff. These indirect forms of accounting for the service user has left much responsibility to hospitals and prisons when it comes to dealing with user feedback and satisfying user demands.

When we asked managers and domain experts how they measured and tracked performance at the local level, many stressed the importance of the *service user*. The voices and physical movements of users were seen as important parts of organizing service delivery and optimizing performance. According to interviewees, users provide insights into how services could be improved; they are important stakeholders whose experiences help assess the quality of management routines. Hospital managers, for instance, used patient surveys to account for patient opinions; the results from these surveys were then used by department heads when reporting to board members about the performance of the hospital. In

[2] We would like to thank an anonymous reviewer for this insightful point.

another example, medical staff relied on patient experience questionnaires to compile an image of how patients responded to treatment. This helped staff reflect on past performance and assess what could be improved in the future. In prisons, prisoner union meetings helped management personnel replace formal complaint management systems; prisoner input could then be used to assess where changes could be made to various service offerings. Prisons also used different forms of physical tracking to re-evaluate the efficiency of current practices.

These are just some examples of how users' views and movements were accounted for and incorporated into management practice. Many managers and domain experts saw users as 'useful' in the sense they could help guide performance management. Consequentially, local initiatives for assembling accounting and management practices around users were often viewed as complementary to regulatory systems. In the following section, we elaborate our empirical approach and methodology.

Methodology

Our empirical work is based on a multiple case study research design (Eisenhardt and Graebner 2007) which included a total of two cases – the German hospital sector and the German prison sector. Based on our interest in how organizations respond to regulatory demands through the mobilization of local practices, we placed our primary focus on the organizational level of analysis. Our sample included three German hospitals and ten German prisons. For our selection of hospitals, we did not make any distinctions between Germany's federal states (*Länder*), as regulations in the healthcare sector are mostly devised on the federal level. All German hospitals face the same regulatory requirements, regardless of the federal state where they operate. We focused only on publicly owned hospitals for the sake of establishing homogeneity. With regard to our selection of prisons, we focused on three of Germany's sixteen federal states. The three states (henceforth referred to as 'Land A', 'Land B' and 'Land C') include one territorial state, one state in the former GDR (East Germany), and one city state. These were chosen for their ability to represent Germany's (legal) heterogeneity[3] and to better understand the broader (German) regulatory approach to accounting for and managing prison performance. Similar to healthcare, we focused only on publicly funded (regular adult detention,[4] standard security level) facilities in order to maintain consistency.

[3] In 2006, a reform of federalism introduced a strict principle of subsidiarity, giving each of the 16 federal states in Germany the right to pass their own penal laws. Thus, in contrast to healthcare, prisons in different states face slightly different demands when it comes to regulatory performance measurement. Hence, we included a sample of several, rather diverse states to compile a better overall picture of the regulatory performance measurement of prisons.

[4] No juvenile prisons, open prisons, female prisons or pre-trial detentions.

We conducted a total of 87 semi-structured interviews. On the regulatory level, we interviewed members of ministries, quality assurance agencies, research institutes, and field experts. For contextual information on the different regulatory systems, we complemented field-level interviews with regulatory documents, press releases, and public interest group statements. On the organizational level, we interviewed actors with a wide range of management responsibilities. We were also given access to organizational documents, which we analysed to complement interview data. Interviewees in our respective organizations included top-level managers (in hospitals, business managers and quality managers; in prisons, directors and controllers); middle managers (in hospitals, medical directors and head physicians; in prisons, heads of departments) as well as some operational staff (in hospitals, assistant physicians; in prisons, correctional officers). Relying on semi-structured interview guides to interview our subjects, we asked interviewees to assess the performance measurement instruments they used. We also asked interviewees to discuss how they influence the design and use of these instruments as well as their judgements regarding the (un)intended side-effects of performance management. We employed 'analytical interviewing' techniques to involve interviewees in a dialogue (Kreiner and Mouritsen 2005: 158). Interviews lasted between an average of 45 and 75 minutes. All interviews were conducted by at least two of the authors, recorded and whenever cited, transcribed and translated into English by the authors.

For the analysis of the empirical material, we followed an abductive analytical approach that builds upon the interaction between data, existing theoretical concepts in the literature, and emerging theoretical categories (Alvesson and Kärreman 2011; Mantere and Ketokivi 2013). The authors engaged in an iterative process of using 'empirical material as a resource for developing theoretical ideas' (Alvesson and Kärreman 2011: 12). We analysed and compared our findings using the data analysis software NVIVO. We focused on how hospitals and prisons extracted information *from* users and produced information *about* users.[5] Reflecting on information 'about and from' users and our empirical material, three categories emerged – (i) approximating users' experiences through an organizational lens, (ii) approximating users' experiences through a professional lens, and (iii) tracing movement. These categories were derived with the help of a theoretical discussion about service users as both subjects and objects of knowledge (Pflueger 2016). User experiences refer to the various ways in which hospitals and prisons addressed service users as 'knowing subjects', persons capable of having a say in what constitutes performance (Pflueger 2016: 18); and in discussing how organizations traced user movement, we cover how users were made into 'objects of knowledge', i.e. entities 'formatted to accommodate organizational activity' (Pflueger 2016: 18).

[5] For reasons of comparability, we excluded information that was produced *for* users – information that aimed to enable prospective users in making informed choices of specific organizations. Although such information was present in healthcare, such choices were not commonly available to prisoners.

Throughout the data analysis, we oscillated between interview data, documents, and extant theoretical concepts to ensure the credibility of our study's emerging findings (Gioia et al. 2013; Jonsen and Jehn 2009; Yin 2014). We triangulated our findings (Jick 1979; Jonsen and Jehn 2009) by combining various sources of evidence, including interviews, internal documents, and archival materials. This approach allowed us to account for sector specificities and tease out similarities and differences based on theoretical concepts. During the coding and analytical process, we routinely questioned one another's interpretations to ensure that the emerging categories were grounded in the data. The constant exchange among all three authors was extended to include feedback from colleagues in our department. Their suggestions were integrated in order to further strengthen the representation of our findings.

This study offers a unique, comparative look at how tensions surrounding users unfolds as public service managers interpret and respond to regulatory systems. A comparison of hospitals and prisons is valuable for its presentation of two 'diverse cases', i.e. cases that encompass a maximum variance among a dimension of comparison (Gerring 2007). By including hospitals and prisons in our analysis, we examine organizations which are distinct in how they account for service users and embed users into management practice. For example, while hospitals invest more in quantitative approaches to interacting with users (through patient surveys), prisons rely more on process controls and qualitative modes of accounting (through prisoner unions). Moreover, hospitals and prisons have distinct relationships with their respective regulators as individual hospitals are granted relatively high levels of autonomy for making operational decisions and structural investments, prisons are tightly coupled to state ministries through budgeting controls. Thus, by selecting hospitals and prisons, we capture a broad spectrum of organizational types, which operate under distinct regulatory regimes. Studying diverse cases promises to enhance the overall representativeness of our study (Gerring 2007: 100). In the following sections, we present our main findings on how hospitals and prisons attempted to account for their respective service users.

Findings: accounting for service users in hospitals and prisons

Managers working in hospitals and prisons referred to service users – patients and prisoners – as key elements in accounting for performance and managing towards local performance goals. The following maps out three different approaches to accounting for service users. While these basic approaches were similar across our two sectors, hospitals and prisons varied greatly in how they linked up representations of users with management practice.

Approximating users' experience through an organizational lens

Throughout our interviews, it became apparent that both hospitals and prisons see value in collecting user opinions about the organizational context in which care is

provided. Managers in both sectors aimed to capture users' views about services, which did not directly relate to the core of professional work. This included users' feedback on facility conditions (e.g. the quality of hospital rooms or amount of time out of cell), as well as other basic services, such as food or selection of free time activities. Managing directors in hospitals and prisons assumed that gathering user experiences about these aspects of care could highlight where improvement might be necessary; some also stated that this input was useful for bringing pertinent legal or administrative issues to a manager's attention which might otherwise go unnoticed. In the following, we discuss how hospitals and prisons gather this type of evaluative feedback and incorporate it into distinct modes of management.

Hospitals conduct patient surveys

Hospital managers and medical directors discussed the on-going patient survey as a core part of a more comprehensive approach to quality management. According to those whom we interviewed, gathering patient opinions is a crucial part of evaluating the overall level of care and attending to the needs of patients. Quality managers and strategic directors claimed that surveys are essential for capturing 'what the customer wants' (hospital quality management officer 1) and responding to patient desires. Medical staff also discussed patient surveys as a way to make changes according to patient needs. Some suggested that survey results are useful for 'thinking about where problems are, and what we can do to improve them' (head physician, cardiologist). One head physician for neurology claimed that patient surveys served as a way to observe quality; surveys allowed staff to quickly discover patient developments and follow up with a closer review: 'if patients were all of a sudden dissatisfied with one station that were previously always satisfied with, then we have to look and see what is actually going on there' (head physician, neurology 1).

Whether they are modelled after the widely disseminated ISO 9001, or a healthcare- specific quality management system, the patient surveys in our hospitals were rather standardized. The core focus of these management systems is the assessment of patient satisfaction with what could be called the 'hotel components' of a hospital visit. Surveys prompt patients with questions about the 'bedside manner' of staff; patients are also asked to evaluate waiting times, cleanliness, food, and the structural facilities, e.g. quality of hospital beds and linen as well as overall room conditions. Patients are invited to rate up to ten different aspects of service delivery on a scale from 0 to 100. While more positive answers allow patients to complete surveys rather quickly, negative responses result in follow up questions that ask patients to describe what exactly they found unsatisfactory (hospital quality management officer 2).

Surveys are often completed while the patient is still in bed. In the hospitals that are a part of this study, every hospital bed is equipped with small touch screen computer terminal. Quality managers claimed that this allows for a higher

participation rate than would be possible with surveys sent by post. One hospital averaged around 1,500 responses quarterly. According to interviewees, the digitalization of survey input also facilitates more streamlined delivery of the results to the quality management office. Once there, one of the main tasks of quality management officers is to compile and analyse results for further processing. Although results have to be revaluated every three years in some cases (e.g. according to ISO 9001 standards), quality managers often look at patient survey results on a monthly basis to calculate averages and construct indexes that can help track improvements or declines in satisfaction. This approach to measuring patient satisfaction is seen as favourable to 'flying blind' or resorting to guesswork, i.e. assuming that 'they [the patients] all feel alright' (hospital quality management officer 2). Quality managers stated that through patient surveys, they are able to discern the rise and fall of satisfaction, which allows them to elaborate an indirect measure of performance.

Surveys are not just viewed as ways for managing actors to be more precisely in tune with their patients' satisfaction. Indexed results are also used to monitor performance and steer internally. Hospitals often deal with pressure to comply with satisfaction target agreements set up by their own executive board. In order to control for these targets, quality management officers and strategic managers report patient survey results on a quarterly basis to clinical department heads. Reports usually consist of PowerPoint presentations that detail trends in satisfaction metrics; many use average ratings to distinguish the performance of different departments. These results are then used in individual meetings between business directors and clinical department heads to discuss and agree upon measures for improving satisfaction. In group meetings with multiple department heads, survey results are used to compile rankings of departments. As one quality manager stated, 'we create an internal ranking, that means we deliver a ranking every quarter, and that results in very good internal […] competition, because, who wants to be last?'; 'everyone who works here has an interest in improving' (hospital quality management officer 1).

Prisons involve prisoners through prisoner unions

Germany's Federal Penal Law (*Bundesstrafvollzugsgesetz*) provides prisoners the right to organize themselves in so-called 'Prisoners' Shared Responsibilities' (*Gefangenenmitverantwortung*) – a kind of prisoner union which is supported by prison staff. These prisoner unions are organized at every facility.[6] Representatives of the union have to be elected by other prisoners. These representatives then meet regularly (usually once a month, but also when there are urgent needs) with the

[6] Besides the specialty of prisoner unions, the legal/constitutional status of prisoners in Germany differs in some points from the status of prisoners in other European countries. For example, prisoners do not lose citizen rights, such as the right to vote. They are therefore offered the opportunity to participate in elections, either in person or by post. Also, although work is obligatory for prisoners in most of Germany's states, it is supposed to be chosen in accordance with a prisoner's skills, or for the purpose of developing skills that can be used upon release. Work is remunerated, though much less than for those outside of prison.

prison administration and heads of department to discuss problems amongst prisoners or with staff, to make suggestions for activities, equipment and changes in organization, or to resolve specific incidents. In this way, prison administrations have a rather systematic means of accounting for user opinions as well as managing complaints internally.[7] One head of department stated that such meetings could be misused or over-stretched – for example, when prisoners compile 'wishlists' of things 'a little far from what [prisons administrators] can allow' (prison head of department 2.3, Land B). Many staff members nevertheless believe that prisoner unions are a useful tool insofar as they allowed prisoners to express themselves. Even though the unions are organized by the prisoners themselves, the interaction with the administrators and heads of departments are formally structured with regard to scheduling, the use of templates (for working on specific topics), and the meeting's accompaniment by a staff member responsible for union issues:

> We have specified that the prisoners are brought together in concrete delays, work on specific topics, always are accompanied by a colleague who has been declared responsible and then get in touch with the prison director, always again together with the contact colleague. (Prison head of department 2.2, Land B)

While protocols of these meetings are kept and circulated among the concerned management personnel internally, regulators request no documentation on such meetings. The prison director and the heads of departments later decide on topics brought up at these meetings with regard to feasibility, usefulness, and persuasiveness. Administrators may only take decisions (from ministries) if these do not involve supplementary funds or interfere with ministry directives. In prisons or prison departments with high fluctuation (i.e. prisoners with mostly short sentences or pre-trial detentions), there are usually no prisoner unions. In these cases, prison staff take notice of complaints and concerns on a rather irregular basis. This illustrates the importance of prisoner unions for keeping in touch and establishing the grounds for prison staff to respond to prisoner feedback. Prison administrations often rely on prisoner unions and associated meetings to replace formal complaint management systems.

Approximating users' experience through a professional lens

Managers spoke about routines and management tools, which aimed to capture user experience in expert terms. Whereas an organizational lens collects user judgments about the administrative contexts in which services are rendered, a professional lens helps estimate users' experiences as these relate to the core of professional

[7] Prison facilities commonly do not have a formal complaint management system. Prisoners, however, complain very frequently and commonly do this by filing suits so that complaints actually leave the facility and have to be dealt with in courts. Such filed complaints are kept track of (in numbers) in external performance measurement tools and inaccessible to prison facilities for internal (learning) purposes.

work, i.e. how service users responded to medical or social care. Hospitals and prisons engage in a variety of practices, which are meant to distil the vague, complex, and noisy construct of user experience into something which could be understood from a professional perspective.

Hospitals undertake projects to measure patient experienced outcomes

In the hospitals in our study, patients are invited to make assessments about their own motor and non-motor functions, cognitive and psychiatric conditions, social functioning, and general quality of life. They report how they experience pain or fatigue; how and if they are able to return to their usual activities, such as grooming or grocery shopping; and they assess their own mobility and ability to participate in social situations. These are examples of patient-experienced outcomes. According to one head physician, measuring patient-experienced outcomes in this way is an important part of assessing the quality of treatment. What constitutes a 'good' treatment varies from person to person, based on their past illnesses, co-morbidities, and social surroundings (see also, Porter and Guth 2012). According to this interviewee, traditional outcome measures in healthcare give some idea as to whether or not a treatment was successful. Yet, such measures cannot capture how an individual patient experiences pain, or goes about their daily activities after an operation. As one clinical director put it, 'quality is not just a simple comparison of "actual" versus "expected' values"; it is also relative', one needs to take into account the expectations of patients and how these are or are not being met (hospital manager 1).

In order to more accurately assess the quality of treatment, managing directors in one hospital began to measure patient experience. At the time of interviews, new research projects had begun to collect and analyse data on patient-reported outcomes and develop experience questionnaires. These began on the initiative of department heads. For example, in one hospital, the clinical director of the stroke unit told us how he applied for an 'innovation grant'; he had seen colleagues in nearby clinics measure patient-experienced outcomes and thought: 'what you guys do, we could do that too' (head physician, neurology 2). He also discussed how he was further inspired by a Harvard Business School case study about a clinic, which had already started to measure and evaluate patient-experienced outcomes.

Drawing on his contacts at the executive board of the International Consortium for Health Outcomes (ICHOM), a global non-profit organization dedicated to measuring patient-experienced outcomes in a variety of medical fields, the head of the stroke unit was able to secure €600,000 in funding. This money allowed his unit to work on the development of experience questionnaires with the help of Southern software – a firm specializing in quality management tools – as well as a group of health services researchers. As one physician put it, now we 'follow all patients who come in for treatment for several years afterwards with questionnaires: we can see how they are doing, and assess what has happened' in their time since treatment (head physician, neurology 1). Research projects like this

one aim to gather patient-reported outcomes and use the results to ask questions such as, '[are] we good, or are we not good?' (head physician, neurology 1). Physicians draw on the results of patient-experience questionnaires to justify decisions which aim to improve the quality of care. The patient experience, as viewed through the lens of a recent professional debate about care quality, has been adopted into new ways of assessing and improving performance.

Prison staff engages in individual discussions with prisoners

Many of our interviewees described how their work is about people and how these personal interactions cannot be 'pressed into numbers' (prison head of department 2.5, Land A). These interviewees did not criticize regulatory performance measurement systems, but simply noted that essential parts of their work and performance could not be assessed by such systems. According to one prison director:

> The penal system always changes. We are a changing organization. If we were a rigid organization, we wouldn't be able to do our job as our clients change. We work with people. People change, prisoners as well as employees, and we are a mirror of society. When the society changes, we have to change as well, otherwise we have a problem. [...] Because we have to adapt to the people we are dealing with. And numbers and facts play only a minor role there, they reflect other things. (Prison director 3, Land A)

As one example of the personal interactions amongst prison staff and prisoners, one head of department described the (immeasurable) value of the 'walks' that he does with prisoners in preparation for their release:

> Yes, it sounds insignificant, a walk as a preparation for release, but as I said, it is also often linked to administrative activities. But the understanding and empathetic way that you bring in for your job or for this concrete task when you're outside with a prisoner is not measureable. (Prison head of department 2.5, Land A)

As external indicator systems are unable to grasp the essence of their work, prison practitioners rely on alternative ways of capturing user experiences – the most relevant element of overall prison performance. This is carried out, for example, by discerning an overall mood or atmosphere:

> **Interviewer:** How do you judge whether this has been a good month or not such a good month?
> **Head of department:** I mainly judge that upon the atmosphere on the station. More than mere facts through numbers I care about: How are the prisoners feeling? How is the atmosphere? Are they particularly aggressive at the moment or are they somehow all cooperating well? [...] This to me is more important than: How many sentence plans are still incomplete by the end of the month? (Prison head of department 2.1, Land C)

One head of department described prison practitioners as ‘fire fighters’, who detect potential dangers and extinguish them. This is done by taking time and speaking to prisoners for as long as it takes. He highlighted that these practices grant prison workers influence over the overall atmosphere in their department; this is considered the most essential and time-consuming part of day-to-day work. For the most part, ‘fire-fighting’ takes place entirely beyond the gaze of documentation:

> Well, I always find it very difficult, I mean, how do you measure that you've been talking to a prisoner who was highly upset and impulsive, and you've calmed him down again? To me, this is a day success, because someone avoided an escalation, but it is recorded nowhere. It receives no consideration at all and when I get asked ‘what have you done all day?’ and I have been busy with such things, then I'm left thinking at the end of the day: Well, actually I haven't done any of the accountable stuff, I can't present anything for the day. I was only fire distinguisher or fire fighter for this whole time and such things get entirely ignored. We always say, we're not working in a storage facility here, we work with people and there are many factors that don’t play a role there. When a prisoner greets who never greeted before or is able to shake your hand, although he wasn't able to over decades, because he had such behavioural problems, then these are for us great successes which are not considered anywhere. Or when a prisoner talks to a colleague on his own initiative – such things are never recorded. (Prison head of department 2.2, Land B)

These practices are part of a standard procedure for prison directors who attempt to find out ‘what was going on’ in their facilities. They do not ask for regular reports or formal updates from meetings. Instead, they make up their own picture. Several prison directors described to us how they walk around within the prison to talk to both prisoners and employees. In that way and through informal exchanges in the corridors, they constantly inform themselves about what is going on, get an idea of the overall atmosphere, and about all types of issues (for example complaints about other prisoners, or the food). If the prison directors experience something similar, e.g. with the quality of the food, they speak directly to the staff responsible. Otherwise, if there are several complaints on the same topic, they take the complaints as a reason to further investigate, e.g. by getting in touch with the appropriate department heads. Overall, by keeping personal and direct contact with prisoners, prison directors are up to date about current events and moods across the entire facility ‘We are well in touch with the prisoners and so we know, what they like or don’t like’ (Prison director 1, Land C)

Tracing user movement

According to many of our interviewees, knowledge about the user’s whereabouts was one of the most important prerequisites for assessing overall performance and managing day-to-day activities. Managing actors attributed value to being able to trace patients and prisoners across organizational departments and through

different spaces (Power 2019). We found various ways in which organizations made users and their movements more visible, allowing those in charge to assess whether or not the user was being handled according to standard procedures. With tracing user movement, we discuss those practices which aid hospital and prisoner directors in coordinating the flow of users from one area to another, e.g. from the waiting room to the operation table, or from the prison cell to the exercise yard. The following outlines some of the methods employed to trace user movement in hospitals and prisons.

Hospitals construct clinical pathways

Medical and business directors in many hospitals commonly referred to clinical pathways (*Behandlungspfade*) as important tools in assuring the quality of treatment and reducing risks to patient safety. Clinical pathways are part of every hospital's standard operating procedure, and are designed to structure patients' movement through the hospital – from first diagnosis and admission, through therapy and treatment – to release. Thus, pathways not only make patients' movements transparent, but also provide a wealth of data about the patient's condition which could be relevant to decision-making. Constructing standardized clinical pathways is seen as necessary for a number of reasons. For example, many see them as helpful for coordinating decisions and actions across different departments, specialties, and even organizational boundaries. Many patients, especially those who are older and more vulnerable, experience co-morbidities, and thus require treatment from a number of different departments. For example, it is possible that treatments or medications are prescribed more than once or that some pre-existing condition goes unnoticed. Some patients also begin treatment in Germany's outpatient sector (e.g. in a physician's practice) and move later to a hospital to receive care, which demands knowledge about the patient's history and previous care to be accessible to all hospital staff.

As one interviewee stated, *how* the patient moves through the organization from station to station can affect the end result of treatment; in sum: 'processes matter for outcomes' (hospital business director 2). This link between standardized processes and outcome quality is also well established in medical literature (Donabedian 1980, 1981), perhaps explaining why many physicians agree that transparent and verifiable pathways are necessary for ensuring good quality care. Clinical pathways are also used as a way to question if therapies really were necessary, thereby ensuring the patient was not provided unnecessary treatments; they are also used to reduce the overall length of stay – the assumption (based in clinical science) here is that longer stays can have negative effects on patient safety.

In our study's hospitals, patients are given a time stamp upon arrival which can be updated and catalogued for later review. One hospital's quality manager described Pathfinder, an IT tool which was introduced to trace patient movement and integrate this information into the hospital's central information system:

> So, when the patient comes, they'll be seen, they'll be recorded in our IT system, they're there. Then first contact with a physician is recorded ten minutes later, then [contact with] nurse, beep beep beep, and then an X-Ray 45 minutes later. Those are all time stamps that are deposited in [our IT system], which I can now analyse. That means the system looks at all patients, all 10,000 patients: how long has it taken on average, for example, to go from seeing the physician for the first time to the x-ray examination. And there we can of course immediately see if there is a snag somewhere. (Hospital quality management officer 2)

Here we see how the patient becomes traceable across different hospital departments and stages of care. Patient movement is translated into terms which allow those not directly implicated in the patient's care – quality managers – to view from afar progress in treatment as well as potential problems with that progress. The IT system also makes the patient's movement visible to the whole organization through the visualization of patient profiles and flow charts. This allows all department heads, managers, and physicians, to see when a patient is at which station and for how long, when a diagnosis is prescribed, which indication criterion was given, and the current location of the patient.

Data about patients' movement also serves as a basis for enacting control. All patient time stamps are automatically coupled to a 'process map', which allows the quality management office to check if the recorded patient's movement matches clinical guideline standards for treatment. In case where is a 'snag' visible in the patient's data, quality managers arrange a meeting with the medical and administrative staff to clarify what actually happened, or discuss how to optimize existing procedures. Head physicians also discuss pathway data at weekly meetings with assistant physicians and nurses. In these meetings, data collected about patient movements are used to reflect on whether treatment processes could be improved:

> Every Tuesday we hold an afternoon conference and analyse every pathway, from every patient that received therapy. Every individual is discussed and we know our time frame, our objectives, and if we deviate from these in individual cases, we ask, OK, why did we deviate in this case? What exactly happened? What time did this occur? And then of course comes the question, how is the patient doing now? (Head physician, neurology 1)

In addition to assessing clinical pathway data internally, some departments took on initiatives to make their processes transparent to external consultants. One head physician claimed that after nearly twelve years of on-going attempts to optimize pathways, it makes sense to bring in a quality assurance expert 'in order to take all of the processes apart - surgically – and [ask him], what you do notice?' (head physician, neurology 1). Thus, tracing patients' movement not only makes the patient visible to all hospital staff, but it also prepares organizational processes for evaluation by outsiders.

Prisons count, track and document prisoner movement

All prisoners are registered at the point of entry into prison facilities. Prisoners are then traced throughout their whole stay – at times this tracing is related to the actual purpose of their stay (e.g. medical treatment or detention); other times, prisoners are traced to ensure that they receive the proper services (e.g. food or showers) at the proper time. Prisoners are traced until their final release, when they are given documentation in the form of a medical letter or a release letter (necessary for all formal inquiries in the outside world, such as financial aid or identification cards). The tracing and documenting of a prisoner begins when the prisoner is – at least temporarily – stripped of all his or her personal belongings and thoroughly checked for objects that could cause potential harm (e.g. drugs, weapon-like objects, etc.). All cash, objects of worth, and official documents such as ID cards, visas, driver's licences, and insurance cards are also confiscated. These items are kept in a special chamber (*Habe-Kammer*). In many prison facilities, these items are also registered on a digital database:

> The chamber servants are the colleagues greeting every new prisoner with his or her bundle underneath the arm, conducting a search of the bundle and telling the prisoner 'you can take this jacket, but this one has to stay here, we have to screen it first'. They check everything that enters the facility and decide on things that possibly don't enter, like the smartphone or the knife or cash. This all doesn't stay with [the prisoners] but is kept safely [up to their release]. (Prison director 2, Land C)

For reasons of security, prisoners are constantly tracked as they move within the facility. This tracking begins every morning with a 'vitals check', where the prison officers not only check whether the prisoners are still in their cell but also whether they are doing well. Tracking controls continue throughout the day, each time a prisoner leaves their cell (for work, exercise, doctor's appointment, etc.). One prison director described the daily control and movement management procedures:

> Work ends around 3pm. and as things go, usually a little earlier. When the prisoners return from the work places their foreman brings them to a specific control point where they are being checked by employees, who are not usually in touch with these prisoners. Not employees from the departmental services, but employees who work in other areas, usually in the field of security and prisoner escort services. They check the prisoners and after the the foremen brings the prisoners back to their respective houses. This control system is very sophisticated and well organized. Of course, checks are more thorough when prisoners return from the work places, because at work there is everything that we don't want to have in the accommodation areas, tools in particular. This wouldn't be good. Yes, during the controls they walk through a metal detector and if this gives a signal, prisoners are further checked by hand. Additionally, there are random sample controls. This is the control system of the moving prisoner. If prisoners afterwards go to their sports activities, they get checked again. When they've been to the

> sports ground and go back to the house they get checked again in case something flew over the wall that actually has nothing to do at a sports activity. (Prison director 3, Land A)

The duration of unlocked periods depends on the security level to which prisoners belong. One head of department described Land C's bonus/malus treatment model as a way to divide prisoners into three different groups, each one associated with different privileges and restrictive measures. This system was introduced to motivate prisoners to behave according to the rules, to facilitate management by instituting specific rules for each treatment group, and to enable the tracking of prisoner development. One head of department described the treatment model in more detail:

> We have a three-step treatment model with three different treatment groups: the basic group, the development group and the probation group. […] This has been developed sometime in Land C because the regional court chambers have said at one point: 'It can't be that somehow there is no motivation and that a prisoner has the same status from first to last day.' They wanted in initiate a certain incentive. That's how a reward concept was introduced into the work and treatment groups. [...] Depending on what kind of challenges a prisoner faces, for example, if he had been causing problems in a former imprisonment here or not. Usually if he hasn't been stealing silverware or been somehow causing trouble he will land in the middle treatment group. He receives a little trust in advance. [...] That's the rule. If we receive someone we know already from a former imprisonment who is very problematic, or someone who has attacked employees or other prisoners in pre-trial custody, then as an exception, he can also be put directly into the basic group. (Prison head of department 2.2, Land C)

The tracing of prisoners ends with the final prisoner count before the cells are locked for the night. Some of this tracing documentation is explicitly requested by regulators. Other forms of documentation vary, based on the prison administrators' affinities for additional controls, such as body scans after returning from the courtyard, or more thorough revisions of prison cells. This type of day-to-day 'physical tracking' is not only an essential part of organizing prison life, but is also used to gain information on how to enhance the performance of specific prison activities. For example, in one of the prisons in Land C, prison management changed the prisoner grocery shopping system from an actual store within the prison to a catalogue and delivery system. This shift was implemented after staff calculated the hours needed from additional staff and the security measures necessary to allow all prisoners to shop once a month. In this case, a catalogue system was implemented, as financial and security related concerns outweighed re-socialization aims commonly associated with on-site shopping (Iloga Balep and Junne 2020).

Discussion

We conducted a comparative analysis of German hospitals and prisons in order investigate how different organizations mobilize performance measurement around service users. Our findings revealed that managers and domain experts placed a significant amount of attention on collecting information from and about service users, i.e. patients and prisoners. Although these approaches to accounting for the service user were broadly similar, we noticed some key differences in how user information was constructed and fed into management practice. Hospitals, for example, relied on quantitative patient surveys, digital technologies, and external consultancies, to account for users. Managers and physicians both worked to incorporate satisfaction metrics, patient-experienced outcomes, and patient profiles into discussions about organizational performance. These patient representations were applied to assess the quality of hospital facilities, to manage the quality of care, and to optimize the efficiency of treatment processes. In prisons, managers used analog modes of documentation, regular face-to-face meetings, and digital technologies to account for prisoners. Through these practices, prison staff aimed to integrate user experiences and movements into discussions about prison performance. User traces allowed prison management to alter programmes – such as the on-site grocery store – which did not make sense economically, or in terms of security. Thus, the ideal of user-orientation has manifested in a variety of ways across different public sector contexts. In the following discussion, we reflect on how various forms and combinations of technical, knowledge, managerial and economic capacity, helped hospitals and prisons link up multiple ways of accounting for users with distinct modes of managing performance.

Mobilizing administrative capacities around the service user

In hospitals

The surveys featured in our study collated users' opinions about what could be called the more service-oriented aspects of healthcare, for example, the bedside manner of physicians, and the hotel components of a hospital stay. These quantified representations of patient experience were used to inform management practices, such as follow up discussions between managers and physicians; metrics were also used to create satisfaction rankings of departments. Based on our discussions with medical and management staff, we can identify several forms of capacity, which enabled the development of patient surveys as a tool for managing performance. For example, hospitals' technical capacities facilitated the use of tablet monitors at each hospital bed; IT infrastructures were crucial for routinely and systematically feeding quantified patient experiences back to quality managers. Employing patient surveys also relied on managerial capacities, namely standardized quality management systems. These allowed quality management officers to build off of existing templates for conducting surveys, and helped them translate quantified opinions into departmental rankings. Surveys also required that managers make use of the hospital's economic capacity – its ability to invest financial resources in sophisticated measurement devices like the patient survey.

Additionally, hospitals constructed ‘patient-experienced outcomes’ as a way of assessing and managing the overall quality of care. Much like the patient survey, hospitals deployed questionnaires to capture patient experience in quantitative terms. Patient-experienced outcome metrics were also used to reflect on hospital quality and to initiate discussions about quality improvement. We noticed that hospitals relied on both knowledge and economic capacities to establish routines that quantify users’ self-reported outcomes. For example, professional networks, current scientific debates, and broader clinical discourses helped physicians justify the pursuit of measuring patient-reported outcomes. Obtaining funding for special research projects was also central in making patient experience a crucial part of quality management practice. Research projects justified the use of patient-experience questionnaire data in discussions about quality improvement. The applications for research funding were facilitated through physicians’ contact with the wider medical community. Knowledge capacities and economic capacities thus mutually support one another to facilitate the measurement of patient-reported outcomes.

Lastly, hospitals constructed clinical pathways to track patients’ movements and make them part of verifiable operating procedures. According to interviewees, time stamps helped make patients more visible, and thus provided information which helped managers identify hitches in processes of service delivery. Several types of capacity played a role in establishing clinical pathways as a management object. Technical capacities were central for building a networked infrastructure that could tag and track patients through processes of diagnosis and treatment. Knowledge capacities were also crucial for constructing digitalized pathways. Clinical standards for moving patients through different stages of care shaped the design of process maps; medical expertise was also necessary for identifying obstacles in service delivery. Technological systems helped collect information about a patient’s location and couple this information to decision-making processes. Hospitals also relied on economic capacities – a surplus of financial resources – to invest in the development and optimization of clinical pathways. Economic capacity was especially important for hiring outside consultants, who in turn, helped managers and medical professionals evaluate and improve pathways.

In prisons

Prisons organized prisoner unions and irregular staff meetings to approximate users’ views through an organizational lens. These methods aimed to collect complaints about the facility or the staff, and to make suggestions for changes in prisons’ various service offerings, e.g. extracurricular activities. Prisoner narratives were used to resolve specific incidents among prisoners, while wish-lists helped staff learn more about prisoners’ wants and desires related to service offerings. Processes which coupled users’ views to decision-making were built on several types of capacity. For instance, a distributed form of knowledge capacity – a broad mix of legal, psychological, and social policy expertise – facilitated both formal

and informal communication within the organization. Collaboration among experts helped decide what to do with information provided by prisoner unions, i.e. whether prisoner complaints would influence process controls; whether prisoner requests would result in new service offerings. A specific form of managerial capacity also played a role in gathering prisoner feedback. Although some more 'traditional' management tools were present, such as the Balanced Scorecard, staff relied on union meetings and sporadic walk-throughs to gain feedback from prisoners. These meetings did not follow any strict template for coordinating activity or collecting data, but nevertheless provided prisons with the means to account for service users' experiences.
Prisons also attempted to discern an overall 'atmosphere' among prisoners. Employees would engage with prisoners on a semi-regular basis to discuss how things were going and to 'put out fires'; for example, in talking with a disgruntled prisoner, a staff member could gather information about how the prisoner was affected by his or her surroundings, and then pro-actively reduce problems that would adversely affect the prospect of re-socialization. For the most part, one-on-one discussions between staff and prisoners drew upon the knowledge capacities of personnel. Staff trained in social work or legal frameworks were able to collect prisoners' experiences and relate them to re-socialization programmes. In contrast to hospitals, approximating user views through a professional lens relied much less on managerial capacities which helped quantify user views, and much more on making sense out of individual cases. This could perhaps explain why prisons relied less on economic or technical capacities than hospitals in this regard.

Finally, prisons track the movement of prisoners from the moment they arrive at the facility. This tracking is a bureaucratic necessity for assuring security within facilities. In addition, tracking movements was used as a way to enhance efficiency. For example, tracking prisoners revealed the number of staff and type of security measures which were needed to process grocery shopping. Based on these numbers, some prison directions opted for an alternative, which involved fewer personnel and fewer security risks, i.e. a catalogue and delivery system. Beyond this, one prison in particular tagged prisoners with different treatment group descriptions, which helped management personnel track individuals across departments; such groupings also aided in management decisions regarding treatment measures and disciplinary actions for individual prisoners. Tracing user movement through prisons required multiple forms of administrative capacity. For example, criminological institutes[8] deployed expert knowledge to devise sentencing plans and sort individuals into different treatment groups. Without this form of knowledge capacity, prisons would not have been able to track prisoners according to treatment groups. Prisons also demonstrated some ability to develop and use IT systems for tracking personal items and for organizing an interface between prison and probation services. However, such

[8] Criminological institutes are public research institutes at both federal and state level engaging in criminological topics. They work closely with the ministries of justice, but also cooperate with universities and depend on research funds to promote their own projects. Since criminology is rare in German universities, the research of these institutes is very important for both practitioners and researchers in the field.

technical capacity was less common than other, more rudimentary forms of documentation, such as handwritten notes or check lists.

In sum, these findings show how various forms of administrative capacity have shaped the ways in which organizations manage performance by accounting for end users. While we observe broadly similar approaches to accounting for users, local practices that accounted for users and embedded them into management routines were rather distinct across our cases. Technical, knowledge, managerial and economic capacities were all crucial to establishing local accounting and management practices, though to varying degrees in hospitals and prisons. Hospitals, for instance, relied on standardized tools and protocols (supported by managerial capacities), to account for user opinions about the service offerings; prisons relied more on personalized meetings and knowledge of specific cases (supported by knowledge capacities), to assess how prisoners viewed service offerings. This is just one example of how hospitals and prisons differ in their respective approaches to mobilizing capacity around users for performance management purposes. The following section reflects more in depth on the notion of administrative capacity and its implications for studying the relationship between regulatory reform and organizational behaviour.

Administrative capacity – implications for research

There are three reasons why a differentiated view of administrative capacity is important for both regulatory theory and practice. Firstly, the notion of capacity highlights the wide variety of calculative practices, expertise, managerial tools, and economic strategies through which accounting for service users is made possible. By distinguishing different capacity types, we broaden our analysis to capture all of those aspects which support and shape local management practices. This provides a way of understanding how organizations address their regulatory environments and behave in ways that they believe are complementary to regulatory measurement regimes. We see the relationship between administrative capacity and practices that quantify as particularly relevant in this regard. Our study unveiled how organizations drew on a wide range of calculative *and* non-calculative practices to complement regulatory systems. The different approaches to accounting are arguably built on distinct forms of knowledge capacity – in modern medicine, users' views are commonly translated into numerical terms, while this form of numerical expertise has been introduced rather late to prisons (Mennicken 2013). While previous work has focused on how organizations complement regulatory systems with self-generated practices of quantification (Goretzki et al. 2018; Kilfoyle et al. 2013), less attention has been paid to non-calculative ways of responding to regulatory environments. By shifting our attention away from the practices themselves and towards the underlying capacities, we were able to examine how organizations use a broad range of resources to develop management routines and tools.

Secondly, the administrative capacity types that we have developed in this study help make us explore different interactions and trade-offs, which occur when organizations attempt to mobilize performance management around service users. For example,

hospitals drew on both knowledge and economic capacities to construct patient-experienced outcome questionnaires. Knowledge about professional debates on patient experience and quality control allowed head physicians to acquire research funding. This funding, in turn, helped hospital staff develop and use questionnaires to evaluate and improve care quality. Technical and economic capacities were also closely related in both cases. Economic resources were necessary for investing in IT systems that traced patients' or prisoners' movements; conversely, processes which were fully digitalized (such as clinical pathways) helped managers optimize routines in terms of economic efficiency and care quality. There were also several trade-offs among different forms of capacity. In prisons, for instance, managerial capacities which helped quantify user experiences were minimized for the sake of placing more attention on individual cases. In this case, expert knowledge took a more prominent role in accounting for users' views than did managerial tools. This could explain why prisons relied less on economic or technical capacities when approximating user views through a professional lens.

Thirdly, the notion of capacity draws our attention to the conditions and consequences associated with mobilizing local management practices around the service user. Our study has shown that the practices, routines, and tools developed in response to external demands are not always built entirely from scratch, but instead become layered onto previously existing structures and processes. For instance, patient surveys were embedded in institutionalized quality management systems; experience questionnaires were based on globally standardized formats; and clinical pathways were largely uniform across organizations due to their common digital infrastructure. Prisons, however, relied much more on notes, written reports, and lists – elements of what previous research has called informal or vernacular accounting systems (Goretzki et al. 2018; Kilfoyle et al. 2013). Together with a diverse group of experts, prison managers were able to create routines without a standardized template. Union meeting protocols and prison walk-throughs allowed staff to meet their own specific information needs; they also enabled managers to conceptualize routines which could be used to control the movement of prisoners through the facility (cf. Kilfoyle et al. 2013: 392). Thus, complementing regulatory performance measurement regimes involves building upon existing routines, institutions, and practices. At the same time, it also involves introducing new practices and more ad hoc forms of accounting. This sheds light on how local management practices are supported by different forms of capacity, and at the same time, generate new administrative capacities, i.e. new ways of incorporating knowledge about users into performance management.

Outlook to future research

In shedding light on the various technologies, ideas, and structures mobilized to account for patients and prisoners, we have provided a deeper understanding on how regulated organizations perceive and act upon demands for user-orientation and quantitative performance measurement. In addition, we have developed the notion of administrative capacity as a way to understand how different organizations collect

information from and about service users for the purpose of performance management. Going forward, future research should further examine the link between administrative capacity and the variety of quantitative (and non-quantitative) practices used to account for performance in organizations. In our study, we mostly focused on how administrative capacity served as a pre-requisite for organizational actors to get the job done (Timmermans and Almeling 2009: 21). More work could be done to examine how new management practices create new forms of administrative capacity. In the context of user-orientation, new management practices may open up possibilities for organizations to account for service users in new ways – for example, by not just considering individuals as beneficiaries of public services, but the wider public as well. These processes are likely going to be fraught, as domain experts and managers struggle over how to define the role of the service user in assessing performance. It is therefore crucial to further scrutinize how new modes of measuring and managing performance, as well as new forms of administrative capacity, mutually influence one another in regulatory settings.

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