

PLURAL FORMS OF INTERDEPENDENT PUBLIC-PRIVATE ACTION AND THE VALUE CREATION OF PUBLIC INITIATIVES*

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Abstract

We assess drivers of successful public-private interaction using a comparative study of public initiatives in Brazil, India, and South Africa. We use fuzzy set qualitative comparative analysis to reveal configurations consistent with value creation (evidence of positive social outcomes). Distinct from the view that private engagement acts a substitute for weak governments, we find that public capacity is evident in all value-creating configurations. In addition, we reveal plural forms of interdependent public-private action—that is, varied configurations of organizational traits supporting projects in the public interest. A path with higher private engagement involves concurrent collaborations with for-profit and nonprofit actors, while an alternative path with higher public engagement relies on alliances within the public bureaucracy complemented by high permeability to inputs from multiple stakeholders.

Key words

Public-private collaboration, plural forms, value creation, social impact, public services

INTRODUCTION

Strategy scholars have become increasingly interested in how economic actors can deploy their resources and capabilities to address pressing social needs (Klein, Mahoney, McGahan, and Pitelis, 2013; Mahoney, McGahan, and Pitelis, 2009). Research has scrutinized myriad ways to organize the delivery of key activities in the public interest—such as transportation, water distribution, security, and education—, ranging from full governmental provision to modes of collaboration engaging private entrepreneurs in the execution and even design of those activities (Cabral, Lazzarini, and Azevedo, 2013; Kivleniece and Quelin, 2012; Quelin, Kivleniece and Lazzarini, Forthcoming; Rangan, Samii, and Van Wassenhove, 2006). Yet, the bulk of this debate has focused on how private action can be an effective substitute for public service provision. Private actors, in this view, help address a deficit of essential services and activities not sufficiently provided by the state (Khanna and Palepu, 2013; Santos, 2012). Thus, Auerswald (2009: 54) argues that “it is precisely the failure of governments that creates opportunities for social entrepreneurs.”

In reality, however, successful public initiatives seem to result from a complex, interdependent effort of both public and private actors; much action takes the form of *plural*

public-private interactions expressed as varied configurations of organizational traits and multiple types of collaboration (Lynn, Heinrich and Hill, 2000; Osborne, 2006). Thus, recent research has confirmed the importance of active and capable governments to not only enforce stable rules in the public interest but also propose well-crafted projects inviting private participation (Cabral, Forthcoming). Some also argue that private sponsorship and private execution cannot generate permanent transformations if not accompanied by well-governed public bodies setting appropriate policies and guidelines to guarantee broad societal benefits (e.g. Deaton, 2013). In this sense, more private involvement does not necessarily imply less state action; it may instead mandate *concurrent* public capacity to support value creation (Andrews, Pritchett, and Woolcock, 2017; Moore, 1995).

Furthermore, although the extant literature has focused on the marginal effects of certain types of public-private interaction—such as public-private partnerships involving for-profit private firms (Engel, Fischer, and Galetovic, 2014; Kivleniece and Quelin, 2012) or alliances between public units and nonprofit organizations (Alexander and Nank, 2009; Bennett and Iossa, 2009; Gazley and Brudney, 2007)—in practice we often observe that multiple forms of collaboration are not only common but also used *in tandem* (Andrews and Entwitle, 2010). For instance, the municipality of Curitiba, in Brazil, designed an innovative bus rapid transport (BRT) system to provide fast, low-cost transportation to local citizens, later adopted in several countries (Lindau, Hidalgo, and Facchini, 2010). The project involved a complex array of collaborations, including alliances within and outside the public bureaucracy. Thus, the Swedish multinational Volvo helped to design customized buses and innovative bus stops (“public-private” collaboration), while local, nonprofit research centers provided technical support and training to the workforce (“public-nonprofit” collaboration). The project also required collaboration *within* the public sector: the city government orchestrated a web of internal partnerships between state units such as the public transport authority and an urban planning institute (“public-public” collaboration).

Therefore, the extant debate on the effectiveness of public-private interactions misses key dynamics related to how public capacity may be essential to foster private engagement, as well as the myriad ways in which multiple actors can collaborate simultaneously to create value or tangible benefits to target populations. In this paper, we advance our understanding of plural forms of interdependent public-private action using a multiple-case comparative study of 24 public initiatives in Brazil, India, and South Africa. We classify our cases according to their evidence of positive value creation to the target populations, operationalized as consistent improvements in key socially-relevant performance dimensions (e.g. Kroeger and Weber, 2014). We use fuzzy set qualitative comparative analysis (fsQCA) to assess multiple combinations of organizational attributes, and determine which combinations are consistent with positive value creation.

Importantly, our use of fsQCA allows us to use observed configurations to explore the role of different combinations of interdependent public and private action. Instead of focusing on the role of external collaborations or certain types of collaboration, we unveil multiple combinations of collaboration type, public capacity, and other attributes influencing the ability of public initiatives to create value to beneficiaries. Thus, following previous work (Aversa, Furnari, and Haefliger, 2015; Dwivedi, Joshi, and Misangyi, Forthcoming; Crilly, 2011), we essentially use our fsQCA to pursue theory *elaboration*—that is, we reassess theoretical attributes using configurations emerging from the comparative cases (Misangyi, Greckhamer, Furnari, Fiss, Crilly, and Aguilera, 2017) and offer a midrange theory of interdependent public and private action and its underlying value-creating mechanisms (Dwivedi et al., Forthcoming).

We submit that private engagement in public initiatives, far from simply acting as a substitute for inefficient governments, does not exclude the need for capable public units. Our analysis finds that strong public operational capacity is—in most cases—essential to lead and orchestrate effective collaboration and project implementation. In addition, some successful configurations of attributes involve concurrent public action in the form of internal (public-public) collaboration between units *within* the public bureaucracy, which have been relatively

understudied (Andrews and Entwistle, 2010; Cabral and Krane, Forthcoming). An important implication is that the analysis of interdependent public-private action should incorporate processes and capabilities *inside* governments. This, in turn, calls for more dialogue and conceptual integration between scholars of strategy and scholars of public administration examining mechanisms of public-private interaction.

Also, instead of focusing on a single type of actor or collaboration, or on its marginal contribution, we provide new evidence that successful public initiatives often combine distinct organizational traits and propose a new theoretical framework explaining their synergistic effects. For instance, for-profit private firms can bring novel resources and capabilities to successfully design and execute public projects, while the risk that these for-profit actors will over-emphasize the appropriation of economic value can be tempered by the simultaneous engagement of socially-oriented nonprofits and strong public capacity. No less important, our work sheds light on an important role of stakeholder-centered governance: public units more naturally sensitive to multiple organizations and beneficiaries can potentially incorporate novel ideas and fine-tune their value-enhancing solutions even without formal collaborations with these actors. In this sense, our configurational perspective reveals alternative paths to successfully organize public initiatives and improves our understanding of the value-creating dynamics emanating from interdependent public-private action (Bryson, Crosby, & Bloomberg, 2015; Mahoney et al., 2009; Quelin et al., Forthcoming; Osborne, 2006).

THEORETICAL BACKGROUND: PUBLIC CAPACITY, COLLABORATION, AND THE VALUE CREATION OF PUBLIC INITIATIVES

Value-Creating Public Initiatives

Strategy scholars have traditionally discussed how organizations can generate value by crafting products and services that are appreciated by customers and can be economically delivered (e.g. Garcia-Castro & Aguilera, 2015). In the public domain, several services such as education, transport, and water distribution are also essential to customers and their effective delivery can bring substantial gains in local wellbeing and development. More recently, strategy

scholarship has improved our understanding of how public and private actors can interact to address societal issues and jointly stimulate innovations in the public interest (Klein, Mahoney, McGahan and Pitelis, 2013; Mahoney et al., 2009). The value generated by public initiatives lies in the ability of those complex actors to design and implement activities that bring tangible benefits to local communities and all relevant stakeholders (Kroeger and Weber, 2014; Porter and Kramer, 2011). More precisely, Kivleniece and Quelin (2012: 275) conceptualize value creation in the public domain as “new and appropriable benefits to society for which it directly—as consumers—or indirectly—as taxpayers—is able and prepared to pay.”

Not surprisingly, value creation in the public domain has also been largely examined by public administration scholars (Bryson, Crosby, & Bloomberg, 2015). Thus, Moore’s (1995) proposed strategic management approach to the public sector considers that public bureaucracies are expected to deliver services valued by populations in such a way that their perceived benefits justify government action. Following this logic, public bureaucracies should have the *capacity* to effectively deliver high-quality services—which is, however, not always guaranteed, as governments often face important organizational, political, and resource-based constraints (e.g. Andrews et al., 2017). In this context, several questions emerge. Will governments have the appropriate capacity to increase value? In what ways can private actors complement the role of governments? We examine these issues next.

Public Capacity and Value Creation

Scholars have highlighted that the success of public initiatives depends on the presence of a government that “transparently and efficiently serves the needs of its clients—the citizens of the state” (Fukuyama, 2004: 26). In this sense, public capacity has been conceived as a government’s ability to implement and execute activities promoting social development (Andrews et al., 2017; Geddes, 1994). Recognizing the key role of public capacity in the delivery of public services, research has delved into the organizational traits that promote the performance of public execution. Thus, a sweeping reform movement in the 1980s and 1990s known as New Public Management (NPM) tried to infuse private-like management practices into

public bureaucracies (Hood, 1991). The NPM reforms focused on the reduction of public expenses through a more streamlined government, contracted-out public services, and market-based competitive practices (Windrum and Koch, 2008). Subsequent developments adopted a more encompassing view of public organizations, recognizing that bureaucracies exhibit multiple governance traits centered on the roles and actions of public managers (Lynn et al., 2000).

A key important trait is *leadership* (Hennessey, 1998). Acting as change agents, project leaders connect ideas, personnel, and resources centered on a well-defined vision of not only what needs to be done (Consedine, Lewis, and Alexander, 2009) but also *how* it can be done—that is, how to implement decision-making and monitoring mechanisms to promote execution and transparency (Andrews et al., 2017). Along these lines, scholars have increasingly recognized that public organizations are comprised of a set of complementary resources and managerial practices leading to effective *execution*. Thus, capable public units are expected to recruit highly skilled and professional staff (Miller and Whitford, 2016; Bhatti, Olsen, and Pedersen, 2011); adopt mechanisms to monitor performance and curb corruption (Barzeley and Armajani, 1992); and incentivize their personnel to implement novel processes and promote the required adaptations (Brown and Osborne, 2012). All these characteristics enhance the capacity of public units to execute value-creating projects.

Multiple Collaborative Forms for Value Creation

A sole emphasis on public capacity, however, disregards that public bureaucracies, alone, may be unable to address critical societal problems and that there may be opportunity to collaborate with multiple public and private actors. Osborne (2006), for instance, calls for “a *plural state*, where multiple inter-dependent actors contribute to the delivery of public services” (p. 384, emphasis in the original). New developments in public management thus adopt a more plural approach: instead of considering public and private action as being independent or at arm’s length of one another, research has shed light on models characterized by collections of multiple parties trying to create and sustain value (Brown & Potoski, 2003; Bryson et al., 2015). This new perspective is aligned with recent studies in strategy stressing the value-creating

potential of interdependent public-private action (Cabral et al., 2013; Kivleniece and Quelin, 2012; Rangan et al., 2006). In this context, below we discuss three main types of collaboration examined in the literature: between public units and for-profit firms (which we refer to as “public-private”), between public units and non-profit organizations (“public-nonprofit”), and between multiple units of the public bureaucracy (“public-public”).

Public-Private Collaboration. This type is perhaps the most studied form of collaboration in the economics and management literatures. There has been substantial work on so-called public-private partnerships, whereby governments craft and sponsor activities that are executed and partially funded by private firms (Engel et al., 2014; Kivleniece and Quelin, 2012). An advantage of those partnerships is that they can marshal complementary resources and capabilities possessed by private actors, such as proprietary technology and extra funding capacity (Fabrizio, 2012; Rangan et al., 2006). Also, if these partnerships involve profit-oriented firms, then their typically higher-powered incentives can promote superior execution capabilities, leading to lower costs and higher productivity (Cabral et al., 2013; Engel et al., 2014). Yet these higher-powered incentives also create a risk that private operators will pursue excessive appropriation of economic value at the expense of service quality and other relevant externalities that would otherwise increase social value, especially in the case of exchange dimensions that are more difficult to measure and enforce (Brown and Potoski, 2003; Hart, Shleifer, and Vishny, 1997). Williamson (1999), in particular, talks about the need to preserve *probity* in public activities, which can be undermined by the profit-based motives of private firms. In other words, the appropriation of economic value by for-profit firms increases efficiency but also raises questions of whether their engagement will promote societal benefits.

Public-Nonprofit Collaboration. This type of collaboration occurs when the public sector engages in joint activities with nonprofit firms such as institutes, foundations, or civil society organizations more generally. Although relatively less studied than more traditional public-private partnerships, these alliances are pervasive in the public sector (Gazley and Brudney, 2007; Valero and Jang, 2016). Nonprofits contribute with distinct sets of resources and

capabilities that are normally not found in for-profit organizations. First, they tend to be mission-driven and specialized in particular social issues, leading them to focus on objectives and outcomes that are more aligned with a well-defined group of beneficiaries (McDonald, 2007). Second, the incentives of nonprofits are not as high-powered as the incentives of for-profit firms, since their managers do not appropriate a substantial portion of the organization's residual cash flow. These features mitigate the aforementioned hazard of private partners focusing on efficiency at the expense of social benefits (Bennett and Iossa, 2009). Yet public-nonprofit collaborations are far from a panacea. By having restricted cash flow rights, managers of nonprofits will tend to be less incentivized to perform, unless they are intrinsically motivated or subject to pressure from sponsors (Glaeser, 2007). In other words, the lower-powered incentives of nonprofits can be a source of advantage to reduce the hazards of for-profit private engagement, though this may become a liability if the public project requires efficient project execution or proprietary resources possessed by for-profit firms.

Public-Public Collaboration. Far from being monolithic, governments often have a web of specialized structures dealing with diverse activities such as project design, legal enforcement, and service delivery. Especially in the case of governments overseeing large populations, unified structures were progressively replaced with more disaggregated structures focusing on narrower, specialized tasks (Greer, 1994)—a process that was reinforced by the NPM emphasis on the infusion of market-like practices into public bureaucracies. Although increased decentralization allowed for more autonomous decision making and localized learning, it also created the challenge of coordinating efforts among interdependent public units (Peters, 1998). In this scenario, public-public collaborations have emerged as the joint effort of multiple public agencies to plan and execute integrative projects. These collaborations can occur either across distinct government units (Agranoff and McGuire, 2004), as in the case of partnerships between federal and municipal agencies, or between units of the same government.

Compared to the hybrid forms discussed earlier, public-public ties have been relatively less studied (Andrews and Entwitle, 2010). Consider, for instance, the organization of large

events in metropolitan areas (e.g. Cabral and Krane, Forthcoming). In events mutually sponsored by federal and local governments, intergovernmental coordination is necessary to properly allocate financial resources and carry out all necessary public investment in infrastructure and management resources. There must also be intense intragovernmental action involving units responsible for policing, urban transport, and relevant support services in order to guarantee the security and orderly execution of all planned activities. By relying on public resources, public-public collaborations tend to face less criticism than external collaborations with private firms, even though their inward focus precludes access to the heterogeneous—and potentially valuable—resources possessed by those external actors.

Stakeholder-Centered Value Creation

Even in the absence of formal collaboration, public units may rely on ideas and suggestions from multiple stakeholders—citizens, civil society associations, entrepreneurs, established firms, and a broad set of contributing actors within the public bureaucracy. Indeed, public administration scholars have long underscored the role of citizen-centered processes, emphasizing how civil society can have their inputs and perspectives considered in the design and implementation of public services (Cooper, Bryer, and Meek, 2006). This view is also consistent with developments in strategic management emphasizing how organizational performance can increase with higher permeability to multiple inputs from employees, suppliers, customers, and employees (Crilly, 2001; Buysse and Verbeke, 2003). Considering and incorporating diverse ideas and suggestions can not only increase the odds that public initiatives will result in transformational outcomes, but also attenuate perceptions that these initiatives are simply benefitting public or private actors directly involved in its implementation (Klein, Mahoney, McGahan and Pitelis, Forthcoming). Recent research has emphasized how stakeholder groups, including beneficiaries, activists and even members of the public sector, may oppose initiatives that are seen as exploiting shared resources for individual gain (Henisz, Dorobantu, and Nartey, 2014).

From a public governance perspective, stakeholder-centered decision making and implementation also supports a more plural governance approach to building services and processes that improves key value-creating outcomes (Osborne, 2006). The literature has emphasized, for instance, the role of public leaders in promoting communication channels between public employees and the targeted community (Denhardt and Campbell, 2006). Once inputs are gathered and considered, the whole public bureaucracy must also be receptive to potential adjustments in policy making and implementation, avoiding the usual rigidities in the norms and procedures of the public sector (Pandey and Scott, 2002). Considering all these theoretical elements, we define *stakeholder-centered governance* as the ability of public units to closely interact with citizens and other stakeholders even in the absence of formal collaboration, with the overall objective of incorporating novel ideas, adapting policy direction, and adjusting internal processes accordingly.

Therefore, a plural approach to understanding how public initiatives are governed and lead to value creation requires the holistic examination of internal capabilities of public units combined with mechanisms to collaborate and gather inputs from multiple internal and external actors. Based on this initial theoretical framework, we pursue theory elaboration by assessing all these attributes in a *configurational* setting (Misangyi et al., 2017), that is, we try to unveil novel interactions between multiple factors that likely affect the value creation of public initiatives. As discussed earlier, scholars continue to debate the relative roles of public and private capabilities in the execution of public services, and the vast majority of studies tend to focus on the marginal contribution of particular forms of collaboration. Our multiple-case methodology, described next, was designed to observe the outcomes of plural forms of interdependent public-private action and inductively elaborate a configurational theory explaining its effect on value creation.

DATA COLLECTION AND METHOD

Case Selection

We built a sample of 24 public service initiatives in Brazil, India, and South Africa (Table 1). To ensure a balanced sample of countries and types of program, we identified four

sectors representing critical public services for the target populations: education, transportation, urban planning, and bureaucratic services (e.g. services to issue public documents or obtain useful information). We focused on projects at the municipal level to facilitate the identification of organizational attributes of the public bureaucracy and allow a more precise assessment of relative performance across countries, which can become substantially more difficult in national-wide projects covering several areas and public spheres with more heterogeneous attributes.

In each sector and country, we searched for evidence of positive value creation. Following our previous discussion, we consider that value is created when a public initiative generates novel and tangible gains valued by the target populations (Auerswald, 2009; Kivleniece and Quelin, 2012; Moore, 1995). As we explain below, we created a common metric to assess all cases. Instead of simply observing whether the initiative was successfully implemented or generated positive results on its own, we also considered evidence on what happened to comparable groups outside the domain of the project (Kroeger and Weber, 2014). Cases received higher scores in our metric of value creation whenever there was strong evidence of impact (e.g. when there were studies available using robust techniques such as differences-in-differences analysis, matching, or randomized controlled trials demonstrating sizeable effects of the interventions).¹ Conversely, cases scored poorly when there was either evidence of negative impact or when the project was discontinued due to excessive cost or perceived inadequacy (e.g. the initiative was not considered as a viable solution to the target problem).

We thus conducted a broad review of evaluation studies of public service initiatives in municipalities across our three target countries. We searched for cases with existing impact assessment studies from multiple sources such as independent repositories of research papers and

¹ Consider, for instance, the case of “São Paulo Poupatempo” in Brazil. This “one-stop shop” public unit was implemented in the city of São Paulo, Brazil, to help citizens obtain driver licenses and other official documents. The objective was to reduce the time spent by citizens across a variety of bureaucratic institutions and to reduce the effect of costly intermediaries. To assess the impact of the initiative, Fredriksson (2016) used a differences-in-differences technique comparing the time spent by citizens in municipalities with and without Poupatempo, before and after the implementation of the service in the period 2008-2010. The study found that Poupatempo reduced the time spent on driver license renewals by 29%, compared to the regular service provided by the state. This initiative therefore generated social value by reducing the time wasted at inefficient public service centers, allowing citizens to reallocate their time towards more valuable activities.

impact studies (such as the World Bank impact evaluation library). Because many of those studies are devised to test the efficacy of policy recommendations, we then narrowed our search to cases where the assessment was associated with policies that were effectively implemented. In some cases, our own research team was also able to gather data on the outcomes of the project, compared to regional or national data. We then checked whether we could locate and secure the participation of former project managers, operational staff, and project stakeholders as respondents to our interviews. In situations where we could not find initiatives with publicly available evaluations, we then contacted sector specialists to explore suggestions for other potential cases with evidence of positive impact.

Finding publicly available studies on initiatives that failed, however, raised different challenges. We again reviewed the literature and contacted sector specialists, who suggested several potential cases. We then searched for evidence of negative impact and tried to follow the outcomes of the project over the years (e.g. whether the project suffered from strong opposition or criticism regarding its costs or potential adverse outcomes). We also contacted multiple stakeholders to get their impression on the performance of the project and additional evidence that the project failed. At the end of this process, we wrote two-page descriptions of each case and summarized the available evidence of impact (or lack thereof). Our goal was to create an outcome metric comparable across cases and assessed by independent raters.²

<Table 1 around here>

Method

Starting with those 24 cases and our baseline theoretical framework emphasizing the interplay between collaboration, public capacity, and contextual forces affecting the impact of public initiatives, we sought to unveil novel explanatory relationships emanating from the

² A more detailed description of the cases, including evidence supporting the assessment of project-level outcomes, is available upon request. When describing the cases of failure, we do not identify the name of the project or specific location where it was implemented. This was a condition set by some interviewees to release more specific, sensitive information. Also, two cases in Brazil and South Africa mixed elements of bureaucratic services and urban development; they were classified as spanning these two areas.

comparative analysis of successful and unsuccessful cases. Specifically, we adopted a configurational approach (Crilly, Zollo, & Hansen, 2012; Dwivedi, Joshi, & Misangyi, Forthcoming; Fiss, 2011; Misangyi & Acharya, 2014; Ragin, 2006) to examine how distinct combinations of attributes are consistent with outcomes. In light of the analysis of the cases, our goal was to “reevaluate theoretical domains in a configurational manner” (Misangyi et al. 2017: 268), a research process referred to as *theory elaboration*. Yet, because such theory elaboration effort is anchored on our limited (“small-N”) set of cases, our results are not generalizable (Greckhamer, Misangyi, and Fiss, 2013). Our novel theorizing is therefore midrange, that is, based on an effort to unveil complex interactions between theoretical attributes applied to our specific empirical context (for other applications, see, for instance, Aversa, Furnari, and Haefliger, 2015; Dwivedi, Joshi, and Misangyi, Forthcoming; Crily, 2011).

To come up with distinct configurations, we used *fuzzy-set qualitative comparative analysis* (fsQCA), which employs Boolean logic and algebra to find combinations of conditions consistent with each outcome. In fsQCA, instead of coding the simple presence or absence of a condition, it is possible to consider the degree to which a condition is present (e.g. the intensity of collaboration or the extent of public operational capacity). Thus, fsQCA allows the researcher to examine not only conditions that will explain the occurrence of a phenomenon—i.e. if a case is successful (referred to as “fully in” in QCA jargon) or unsuccessful (“fully out”)—but also the extent to which each observation is consistent with success or failure. Additionally, this method accounts for *equifinality*, i.e. it accommodates situations where multiple paths can lead to the same outcome (Fiss, 2007; Ragin, 2008; Rihoux and Ragin, 2009). This feature is crucial for our research question, given that we intend to examine not only how distinct public-private attributes can lead to superior social value, but also how multiple attributes can be combined (i.e. plurality). However, because we have a relatively small number of cases, we were limited in the number of conditions that could be employed; for 24 cases, Marx and Musa (2011) recommend no more than five conditions. We thus centered our analyses on our previously discussed

theoretical attributes (public capacity, the three collaboration types, and stakeholder-centered governance).

Data Collection

We collected data through qualitative interviews anchored on customized scales (rubrics) to measure our attributes.³ Our use of rubrics instead of agreement (Likert) scales is justified because we wanted to guarantee comparability across all responses. In our rubrics, we carefully described what each point in the scale meant for each item, thus anchoring responses on distinct types of behavior corresponding to different levels of the construct (Oakleaf, 2009). Dedicated research teams in each country, with a deep understanding of the local context, performed the interviews and overall data collection. For each project, they conducted three interviews with public officials in strategic and/or operational positions, and with managers of private organizations or general stakeholders that conceived, implemented, or studied the project. The selection of multiple interviewees allowed us to mitigate common respondent bias and check the reliability of their assessments. Each interview lasted at least one hour; so in total, our interviewing process took about 72 hours, not including the field trips and additional interviews required to validate all the cases. The interviews were conducted in person or through phone/internet calls. Besides collecting coded information following our rubrics, we also gathered qualitative assessments of how the project was executed and explanations of the dynamics that drove its final outcomes. This procedure allowed us to triangulate our quantitative and qualitative data and to provide an in-depth view of each initiative and its context.

After completing the set of three interviews for each of the 24 cases, we performed reliability tests to ensure consistency within cases as well as agreement across interviewees for the same case. Namely, we assessed the Cronbach's Alpha across rater responses, Intra-class Correlations (ICCs), and Cohen's Kappa agreement tests against the null hypothesis that responses across raters were randomly determined (Fleiss, Levin, and Paik, 2003). All measures

³ Due to space limitations, our rubrics and list of interviewees are not reported here, but are available upon request.

show Alphas and ICCs higher than the acceptable threshold of 0.7, and in all cases the corresponding p values allow us to reject the null hypothesis that response scores are randomly chosen. We thus conclude that there was high agreement across raters.

Thresholds and Calibration

In fsQCA, outcomes and attributes are evaluated as a member, or not, of a particular set indicating the extent to which they are “in” or “out” of a particular condition (Misangyi et al., 2017). We started with the assessment and design of our rubrics based on theoretically-relevant indicators of whether a given condition is present or not. Considering a four-value fuzzy-set scale (Ragin, 2008), in our rubrics the highest scores (4 and 5) represent “fully-in” membership; the intermediate score, “more in than out” (3); and the lowest scores, “more out than in” (2) and “fully-out” (1). For instance, as discussed before, the highest score of our outcome measure (5) involves a situation of strong quantitative evidence that the target populations improved on key outcome variables beyond what was observed in comparable groups (Kroeger and Weber, 2014). The intermediate score (3), in turn, would reflect *some* presence of the condition; that is, we can still consider that the condition is present, but in weaker form. In our outcome rubric, this is expressed as some evidence of positive outcomes, even though results are not totally aligned (e.g. some performance indicators improve while other have a more ambiguous development). Finally, the lowest score of our rubric would expose a situation of clear failure—e.g. evidence that project failed due to strong opposition and/or evidence of weak or even negative outcomes.

A natural way to calibrate our measures would be to directly examine responses to each rubric using the criteria above—e.g. a score of 3 would represent moderate presence (“more in than out”) and so on, successively. However, recall that, to increase reliability, we used multiple raters and, as we explain below, some of our measures involve multiple items to capture distinct complementary dimensions. We thus created composite measures as the average scores of the raters and the average of multiple items whenever the construct itself was composed of more than one item. With these composite measures, we then applied the direct calibration method (Crilly, 2011; Ragin, 2008) to a four-value fuzzy-set scale. After examining the distribution of

responses across our scales, we defined 2.5 as the average score of the composite measure as our crossover point; 1.25 as our “fully out” threshold point; and 3.75 as our “fully in” point.⁴

Table 2 shows the descriptive statistics and correlations involving our (raw) composite measures; the calibrated measures are not reported here but available upon request.

<Tables 2 around here>

Outcome: Evidence of Social Impact

As described in our previous subsections on “Case Selection” and “Thresholds and Calibration,” we compiled information on each case and asked three independent raters to provide their suggested performance scores on a 1-5 scale. Agreement across raters was very high (Cronbach’s Alpha and ICC equal to 0.949, and Cohen’s Kappa agreement test with $p < 0.001$). The average of raters’ responses was then used as our final outcome measure of impact (evidence of social value creation). The average score of our successful cases (“more in than out” or “fully in”) was 4.5, whereas the average score of the unsuccessful cases was 1.44.⁵

Theoretical Attributes

Public Operational Capacity. Following our theory discussion, we measured public operational capacity as a five-item composite measure including i) public leaders’ articulation of desired goals, ii) merit-based (as opposed to politically-motivated) staffing, iii) extent of monitoring and accountability, iv) existence of processes to facilitate implementation and change, and v) adoption of anti-corruption practices (Cronbach’s Alpha = 0.93). In this case, the highest scores in the rubrics (5) generally indicate a situation where leaders have clear goals, hire

⁴ In some cases, we considered non-integer thresholds (e.g. 2.5 instead of 3) because the composite nature of our rubrics creates the risk that a case will fall just below the threshold even when some items indicate presence of the attribute. For example, in the case of the Hyderabad Metro Water Supply and Sewerage Board (India), our measure of stakeholder-centered governance received an average score of 2.67, largely because of one single item related to the existence of rigid formal rules (reverse scored), whose scores fell around 1. However, our interpretation of the case indicated that there was moderate stakeholder-centered governance, as leaders were willing to incorporate suggestions from multiple stakeholders, even though they were constrained by formal rules. We also performed a sensitivity analysis varying the thresholds used in our calibration. For instance, to check the robustness of our outcome measure, we changed the “fully in” threshold from 3.75 to 4.25, in order to implement a more rigorous classification of successful cases. Also, for cases where the average scores of our composite measures fell precisely at the thresholds, we experimented with alternative assignments. As it turns out, in all our sensitivity analyses solutions remained similar to our previously reported results.

⁵ The detailed distribution of membership following our calibration is not reported here, but available upon request.

skilled managers, and promote strong monitoring and accountability mechanisms (Andrews et al., 2017; Barzeley and Armajani, 1992; Miller and Whitford, 2016). The intermediate points (3) reflect some presence of public capacity, even though some features remain underdeveloped—for instance, although the leader has a clear vision of the project, goals are not clearly articulated and expressed to the team. Finally, the lowest scores (1) indicate poor leadership, use of political appointments, and a lack of accountability.

Collaboration. In line with our previous theory discussion, we focused on three main forms of collaboration, namely: public-public, public-private, and public-nonprofit. For each type of partnership, we relied on two questions: We coded whether the public agency responsible for the project i) mutually collaborated with the partner, and ii) recruited/engaged people from the partner to work on the project. As is usual in the alliance literature (e.g. Gulati and Sing, 1998), these questions were particularly designed to gauge the *interdependence* of collaborating parties. The second question, in particular, was designed to capture potential cross-fertilization of capabilities across partners, considered as a critical attribute of interdependent public-private action (e.g. Klein et al., 2013). In this sense, the highest score on our scale would reflect a situation where the project is dependent on the mutual efforts of partners, complemented by intense exchange of human capital. The intermediate point describes a situation where partners engage in shared, collaborative activities but they remain relatively autonomous. The lowest score, in turn, reflects a situation of total independence and no exchange of human capital.

For each collaboration type, we then calculated a composite measure based on the average of those two items. We thus arrived at three composite measures for each collaboration type: public-public, public-private, and public-nonprofit. Given that Cronbach's Alphas are not usually recommended for two-item measures, we checked their reliability using Spearman-Brown correlations (Eisinga, Te Grotenhuis, and Pelzer, 2013); they were respectively 0.73, 0.70 and 0.85, all above or equal to the acceptable level of 0.70.

Stakeholder-Centered Governance. We measured the stakeholder-centered governance of the public unit with four items, coding i) the permeability of leaders to external suggestions

from citizens and other stakeholders, ii) the ability of leaders to develop external channels of communication with stakeholders, and iii) the existence of rigid formal rules constraining the adoption of external ideas (reverse scored), iv) the existence of internal norms and procedures facilitating improvement and change (Cronbach's Alpha = 0.73). In this attribute, in line with our theory discussion (Denhardt and Campbell, 2006; Pandey and Scott, 2002), the highest scores (5) express a condition where top leadership communicates with external stakeholders and the internal processes of the public bureaucracy are highly permeable to inputs from these external actors. The intermediate points (3), in turn, reflect some extent of stakeholder-centered governance, such as when the leader centralizes decision making but there is some degree of interaction with managers, external communication, and adaptation to new suggestions. The lowest scores (1), in contrast, characterize total absence of stakeholder-centered governance: leaders rarely involve multiple stakeholders in the decision-making process and organizational inflexibilities hamper any possible change and improvement.

Analytical Procedures

Our primary objective is to analyze whether the presence/absence of any theoretical attributes (alone or combined) is sufficient to observe greater value creation. Thus, after calibration, we defined the consistency and frequency thresholds for the fsQCA. Consistency refers to the degree to which membership in a particular configuration is a subset of membership in the final outcome (Ragin, 2006). In simple terms, high consistency means that a certain combination of conditions tends to be associated with the outcome of interest (in our case, evidence of value creation). When defining a target level of consistency, we sought a conservative level of 0.800 (Bell, Filatotchev, and Aguilera, 2014; Campbell, Sirmon, and Schijven, 2016; Fiss, 2007, 2011), though 0.750 can be considered acceptable (Ragin, 2006). As for the frequency threshold, given our relatively small sample size, we followed the recommendation by Rihoux and Ragin (2009: 107) and considered configurations with at least one representative case. In our analysis, we considered the intermediate solution generated by the fsQCA software (Dwivedi et al., 2017; Fiss, 2011; Misangyi and Acharya, 2014)

We performed an analysis of necessity following recommendations in the literature (Dwivedi et al, 2017; Ragin, 2000, 2008). The main idea behind this analysis is to statistically evaluate whether each attribute (or combination of attributes) is necessary to explain outcomes. For each attribute, we considered three benchmark levels, namely: “more often than not” (0.5), “usually” (0.65) and “almost always” (0.8) (Ragin, 2000: 109-110). Also, as we have less than 30 cases in our sample, we performed the necessity analysis using the binomial probability formula (Ragin, 2000: 110-115).

RESULTS: CONFIGURATIONS AND CASE ILLUSTRATIONS

Main Results

Table 3 presents the results of our sufficiency analysis, showing two sets of solutions: the first with the three types of collaboration and public operational capacity as the four attributes (configurations 1a and 1b). The second, and more complete solution, has the same four attributes plus stakeholder-centered governance (configurations 2a, 2b and 2c). As is usual in the QCA literature (Fiss, 2011; Misangyi and Acharya, 2014), we interpret the configurations as follows: central conditions are represented by "●" (presence) and "⊗" (absence); while contributing conditions are marked with "●" (presence) and "⊗" (absence). Blank spaces indicate a “don’t care” situation, that is, the condition is not relevant to that configuration. Central conditions, as opposed to contributing conditions, emerge from the existing data in the studied cases rather than from counterfactual analysis (Ragin, 2008). However, following previous work (Dwivedi et al., 2017; Misangyi et al., 2017), we refrain from making any distinction between central and contributing conditions in our interpretation of results.

<Table 3 around here>

Looking at the more complete set of solutions (configurations 2a, 2b, 2c), we find two general paths to a successful public initiative. First, we have a path that emphasizes *public* effort, including collaborations within the government (2a); and then we have another general path with two configurations emphasizing *private* collaboration with for-profit and nonprofit firms (configuration 2b and 2c). These paths cover all 12 successful cases we have in our

sample. Moreover, the cases are somehow evenly distributed between these paths, i.e. six successful cases are in the configuration with higher public emphasis (2a) and the six other successful cases are distributed across the configurations with enhanced private engagement (2b and 2c). Notice that configurations 1a and 2a are fairly similar, while configuration 1b is apparently split into two, more refined solutions once we include stakeholder-centered governance as an additional attribute. Therefore, in what follows, we consider the most complete set of configurations 2a-2c to discuss our results.

Path with higher public engagement. Configuration 2a of Table 3 indicates that, in the absence of collaborations with nonprofit organizations (with collaborations with for-profit firms as immaterial), successful public initiatives can work through a combination of partnerships within the public sector (public-public alliances across distinct public units), public operational capacity, and stakeholder-centered governance. A total of six successful cases are consistent with this path, including two initiatives in Brazil (São Paulo Poupatempo and Osasco Land Titling Regularization), three in India (Hyderabad e-Seva, New Delhi Metro, Hyderabad Metro Water Supply and Sewerage), and one in South Africa (Polokwane Program).

To increase our understanding of this result and gain more insights on this configuration and its mechanisms, we selected an exemplary case, India's New Delhi Metro, to illustrate our finding. New Delhi Metro was the second metro rail project in India. Significant social and economic impact resulted from the project—for example, a reduction in the total number of vehicles on the streets and savings due to efficient implementation. As seen in the following quote, there is evidence of strong public capacity, defined as a combination of effective leadership and execution. The project leaders found and brought together relevant people and departments from diverse parts of the public bureaucracy; as well as promoting efficient decision-making and implementation:

Leadership played a very important role in the success of the Delhi Metro... In the case of Delhi metro, it played a very important role especially in terms of getting it through the bureaucracy, getting the right talent, starting implementation and taking faster decisions. For instance, the Delhi Metro was able to pull out a lot of good people from

Railways who were extremely qualified in terms of their subject domain... (Expert in public transportation, pers. comm.)

We can also see that the project relied on collaborative action within the public bureaucracy. Indeed, the project even involved the creation of a new public organization resulting from the joint effort of multiple government units, The Delhi Metro Rail Corporation (DMRC). DMRC was co-owned by the Government of India and the Government of National Capital Territory of Delhi. Delhi Metro was also the first project designated to the Ministry of Urban Development, beyond the core activities of the Indian Railways. In addition, during the planning phase of the project, regular stakeholder consultations were held. These discussions shed light on the demand patterns which were made an integral part of the blueprint of the Delhi Metro. This feature suggests the presence of stakeholder-centered governance. Although some collaborations with for-profit private firms did occur in this project, the main value-creating mechanism of the project involved concerted effort within the public bureaucracy, associated with a general predisposition and openness to get input from external actors and strong public capacity to lead and execute all required activities.

Path with higher private engagement. Configurations 2b and 2c are *neutral permutations* (Fiss, 2011), i.e. they share the same central conditions but differ in the contributing ones. We interpret both configurations as a similar path—considering that “the permutations do not affect the overall performance of the configuration” (Fiss, 2011, p. 398)—while at the same time explaining their observed variations. In this sense, configurations 2b and 2c can be thought of as multi-collaborative configurations involving public-nonprofit and public-private ties, in the presence of strong public operational capacity. However, while in configuration 2b stakeholder-centered governance is a contributing attribute, in configuration 2c stakeholder-centered governance is immaterial and the presence of public-public collaboration is required. Our sample had a total of six successful cases following this path: two in Brazil (Sobral Education Program and Curitiba BRT System), one in India (Andhra Pradesh Teacher

Performance Pay Initiative), and three in South Africa (KwaZulu Natal - Siyakha Nentsha, Cape Town BRT System, and eThekweni Water and Sanitation).

An exemplary case for configuration 2b is South Africa's Siyakha Nentsha project (translated as "building with young people"), an education program for teenagers in South Africa's KwaZulu-Natal province. The project involved developing extracurricular skills among young students, with the objective of teaching them how to mitigate threats from HIV/AIDS—whose incidence in this region of South Africa is particularly high. There is evidence that the project resulted in significant improvements in safe sexual behavior, knowledge of HIV/AIDS risks, and diverse cognitive abilities. The project was implemented in coordination with nonprofit organizations, specifically, Population Council and Isihlangu HDA. These nonprofits worked with the Department of Education to offer specialized education programs for HIV prevention. Public-private collaboration, in turn, came through the activities of AccuData, a for-profit firm specialized in data and research solutions:

AccuData was chosen as partner because of their vast expertise in successfully organizing and managing social science research within traditional communities in southern Africa... Isihlangu HDA certainly had the local knowledge, and Pop Council had the technical expertise for the survey data collection, but neither organization had the combination described above that was required to work in the peri-urban and rural communities where the project took place (Program manager at nonprofit, pers. comm.).

Illustrating strong stakeholder-centered governance, project managers and their private partners engaged in meetings with citizens of various ages, with the objective of learning their views about the project and the vulnerabilities of the target group. The project recruited youths from local municipalities, who received basic salaries and training, apparently making their parents more predisposed to support the project. A key concern was that KwaZulu-Natal is in a low-income region of South Africa, where most families are subsistence farmers and have poor access to quality education and infrastructure. Thus, the project had not only to marshal community resources but also be sensitive to their local needs and inputs:

Because we were in a tribal area, we had to go to different routes... They made a rule that we had to hire people from the community... We had to be respectful and go to them, be clear and negotiate (Researcher specialized in education, pers. comm.).

While this example shows the importance of stakeholder-centered governance in configuration (2b), the other configuration with higher private engagement (2c) adds the presence of public-public collaboration as an attribute leading to value creation. Indeed, in this configuration we see a very plural combination of *all* types of collaboration that we reviewed in our theory section. An exemplary case is the Curitiba BRT System, briefly discussed in the introduction. Structured as a bus corridor with few stops, the BRT system allowed passengers to commute at higher average speeds, thus increasing passenger capacity and frequency of use. The involvement of for-profit and nonprofit actors was crucial in this project. Local education and research institutes helped with studies and provided technical specialists to work on the project. For-profit manufacturers of vehicles such as Sweden's Volvo contributed with distinct technical knowledge to design customized buses and related transport technologies:

... most of our process was based on trial and error, and of course seeking partnerships with private firms, so we envisioned a process of open innovation... The mayor had a problem, then he would call the companies; it was the case of Volvo, which was establishing its operations in Curitiba and delivered a project to create new axles, given that we needed a larger bus... (Researcher specialized in transport, pers. comm.).

The project also relied on intense public-public collaboration involving multiple state actors. The mayor managed to get support from the federal government, which provided funding and political support. A key actor involved in the project was IPUCC (Institute of Urban Research and Planning of Curitiba), a public unit responsible for the planning and monitoring of metropolitan activities, based on general directives set by the municipal government and in collaboration with the local transport authority:

... the team of IPUCC who designed all the projects, all final projects, visual communication, urban infrastructure, how the system would work... [Also] Brasilia [the capital city of the federal government] helped us a lot in this process, you know, the people who were in charge of financing these projects were always key partners (Former Secretary of Planning and Mayor, pers. comm.).

There is also evidence that these public-public alliances effectively functioned as conduits of new ideas on how to improve service delivery. IPUCC held a multifunctional team involving engineers, sociologists, and urban planners closely collaborating with the transport authority of the municipal government on a broad range of activities. Their interdependent effort and common emphasis on systemic urban planning helped stimulate the exchange of knowledge and suggestions on how to improve outcomes valued by the local population.

Contingency Analysis

Although QCA does not require the use of control variables (Dwivedi et al., Forthcoming), we attempted to evaluate whether contextual factors affected the way our theoretical attributes combine to generate successful outcomes. We thus added an attribute coding *environmental enabling conditions* (Bhatti, Olsen, and Pedersen, 2011; Lynn et al., 2000). We assessed whether governments were affected by the degree of resource munificence in the environment, assessed in terms of human, financial, and infrastructure resources, as well as by the presence of political stability, that is, lack of frequent changes in the ruling political party.⁶ Table 4 shows the results of our contingency analysis adding environmental enabling conditions as an additional attribute. Configurations 3a and 3b replace stakeholder-centered governance with this contingency variable, given that, as we discussed before, we are constrained to a maximum of five attributes given our sample size (Marx & Dusa, 2011). Although supportive environmental conditions intuitively seem essential for success, variations in these conditions do not appear to affect the successful configurations in our analysis (see configurations 1a and 1b in Table 3). As an additional check, even at the risk of exceeding the maximum recommended number of attributes in our empirical context, we also present solutions where both stakeholder-centered governance and environmental conditions are included (configurations 4a-4c). Again, our new combinations are similar to solutions 2a-2c in Table 3. We thus conclude that

⁶ We employed a four-item composite measure coding three sets of critical resources: i) human capital available for the project, ii) infrastructure (physical and technology), and iii) financial capital in the municipality; complemented with iv) perceptions of whether a change in public administration would result in the scrapping of initiatives implemented by previous administrations (Cronbach Alpha = 0.71).

environmental enabling conditions are important attributes for value creation, even though they apparently do not change the configurational logic of our theorized attributes.

<Table 4 around here>

Configurations Associated with Unsuccessful Value Creation

One of the premises of QCA analysis is that configurations leading to success are not necessarily the opposite of configurations leading to failure. Thus, it is also informative to examine combinations consistent with *unsuccessful* value creation. As seen in Table 5, except for configurations 5a and 6c, all “failed solutions” involve the absence of public operational capacity, which reinforces our previous finding that this attribute represents a key driver of success. Yet configuration 6c shows that even if public operational capacity is present and combined with stakeholder-centered governance, the absence of *any* collaboration leads the initiative to fail. It is also interesting to note that the unsuccessful cases are generally associated with either the absence of collaboration or the presence of a single collaboration type (such as configurations 5d and 6b). There are only two solutions leading to failure involving multiple forms of collaboration (5e and 6d). These results therefore confirm the importance of *some* collaborative effort to promote value-creating public initiatives, with the presence of multiple collaborations generally associated with successful cases of value creation.

<Table 5 around here>

Analysis of Necessity

Complementing our previous findings, we now check whether any of our attributes are necessary for value creation. Table 6 shows the results of the necessity analysis considering our three specified benchmarks, discussed before. Results show that only environmental enabling conditions, our contingency attribute, is always necessary for successful outcomes—with the caveat that, for the “almost always” necessary benchmark (0.8), significance is marginal ($p < 0.10$). However, given our small sample size, statistical power is limited and therefore rejecting the null hypothesis becomes more difficult if we adopt more stringent significance cutoffs. Similarly, although no collaboration form *alone* leads to successful public initiatives, we find

that the *union* of those collaborative attributes—that is, the presence of at least one form of alliance—is necessary for a successful outcome. Our necessity analysis also reveals that some attributes are usually necessary, i.e., they are significant when we adopt the 0.65 benchmarks. This is the case of public operational capacity, stakeholder-centered governance, and public-public collaboration (although for the latter, significance is marginal for the 0.65 benchmark). Because our previous solutions indicate that public capacity appears in all value-creating configurations (see Tables 4 and 5), we can say that this attribute is usually necessary and consistently present in all successful paths.⁷

<Table 6 around here>

DISCUSSION: UNDERSTANDING PLURAL FORMS OF INTERDEPENDENT PUBLIC-PRIVATE ACTION

In light of our empirical findings and building on our previous theoretical framework, in this section we elaborate a midrange theory of how *plural* forms of interdependent public-private action create value in the form of positive, tangible benefits to target populations. Figure 1 summarizes our key theoretical attributes and mechanisms, identifying elements that occur in the public and private sectors, as well as at their interface.

<Figure 1 around here>

The public sector interacts with private players via multiple *external* collaborations, involving either for-profit firms or nonprofits. Yet collaborations can also occur within the public sector, via multiple collaborations between distinct government units. In other words, a collaborative approach to value creation does not necessarily imply “externalization” of public activities across the public-private boundary (Alford and O’Flynn, 2012), but may also involve collaboration that occurs *internally*, within the public sector. Furthermore, a common attribute consistent with value creation, irrespective of the type of collaboration, is the presence of

⁷ Additionally, we performed the same necessity analysis to check whether any given attribute is necessary to failed outcomes. We find that no attribute or any combination of attributes appears to be significantly necessary to failure when we consider the 0.65 and 0.8 benchmarks.

superior public capacity. Thus, our proposed framework reinforces the view that the engagement of private actors is no substitute for weak governments (e.g. Deaton, 2013). For collaborations to work and lead to successful initiatives, they first need the full engagement of political leaders who set a given collaborative agenda and define a common vision guiding the mobilization of public and private resources. Mechanisms to promote monitoring and accountability will avoid the risk that new projects will fall prey to corruption and misallocation of resources. Leaders will also count on public managers with technical knowledge to identify critical success factors and create processes to channel the efforts of multiple collaborative actors.

The specific mechanisms through which public actors will help mobilize internal and external resources will vary according to the alternative configurations that can emerge. We identified two general paths consistent with value creation, one involving higher emphasis on public (internal) effort, and another with pronounced (external) engagement of for-profit and nonprofit private actors. The path with heavier reliance on internal public effort combines public operational capacity and a general predisposition to incorporate inputs from external stakeholders, complemented by the use of public-public collaborations. In this configuration, public managers will help foster public-public collaborations involving multiple government units, thus increasing the ability to seamlessly articulate distinct public capabilities, internally coordinate all necessary changes, and improve delivery. Second, leaders will encourage public managers to adopt mechanisms to dialogue with stakeholders and incorporate their input. The public bureaucracy must be flexible enough to adjust internal processes and prioritize actions that will have a high impact on beneficiaries. Simply being open to external suggestions can be innocuous if not accompanied by organizational efforts to set goals as a function of those new suggestions and to adapt internal processes accordingly.

In addition, this ability to connect with and incorporate suggestions from stakeholders reduces the need for formal collaboration with private actors. Indeed, this configuration, with strong stakeholder-centered governance, involves the absence of public-nonprofit collaboration. In our previous theory discussion, we argued that an advantage of involving nonprofits is that

they are often specialized in certain types of beneficiaries (e.g. local low-income populations) or certain types of social issues and activities (e.g. poverty reduction or education). Therefore, high public capacity combined with strong stakeholder-centered governance amplifies the predisposition among public leaders and managers to listen to and understand the needs of target populations as well as their ability to adapt to the specificities of the social activity.

Consequently, with these attributes in place, value creation can naturally flow from actions that occur mostly inside the state. Notice, however, that this configuration does not involve total absence of collaboration. In this path, alliances between public units *within* the public bureaucracy promote joint action across distinct public units with complementary roles in the process of service delivery or sharing a common interface with beneficiaries (e.g. units managing education and units managing social programs for low-income families).

Our second path, in contrast, involves a higher emphasis on private actors, either for-profit or nonprofit. Research on public-private partnerships, discussed in our theory review, suggests that for-profit firms can bring extra capital for new investment, as well as proprietary technical knowledge and efficient execution capabilities. Yet, two critical hazards may emerge. On the one hand, for-profit firms may be reluctant to deploy these distinct resources if there is risk that the public administration will fail to enforce existing contracts. The presence of public capacity will help attenuate this risk and encourage enhanced private participation. Thus, capable leaders and public managers will define clear goals at the outset and then develop processes and accountability mechanisms to limit the risk of misunderstandings or conflict. On the other hand, the high-powered incentives of for-profit firms may pose a risk to social value creation if they place excessive emphasis on the appropriation of economic gains at the expense of reduced benefits to the target populations. Several attributes of this configuration will tend to attenuate this risk. The presence of mission-driven nonprofits can help balance social and profit-oriented objectives during project design and implementation. With weak economic motives, nonprofits can act in close collaboration with capable public managers to avoid drift from the original (social) objectives of the public initiative. In addition, nonprofits often have a

comparative advantage in important dimensions of public service, such as specialized knowledge of target beneficiaries, skills to communicate with local communities, or extra financial resources to support interventions. The presence of strong public operational capacity, creating normative procedures and closely working with nonprofits, can further reduce the risk that efficiencies will be sought to the detriment of social objectives.

This path with higher private emphasis, however, can function in two distinct variations. In one possible configuration, the presence of stakeholder-centered governance will allow all these public and private actors to receive input from beneficiaries and other relevant stakeholders, while the presence of public-public collaboration becomes immaterial. In the other possible configuration, we have a highly plural collaborative effort involving *all* collaboration types—public-public, public-private, and public-nonprofit. Yet in this last configuration the presence of stakeholder-centered governance is immaterial; although its absence is not a required condition, value creation can occur even where public units are not highly stakeholder-oriented. In this case, ties with for-profit firms allow public actors to improve their understanding of the critical concerns that constrain private investment, while ties with nonprofits increase the odds that the interests of potential beneficiaries are indirectly represented. At the same time, the presence of internal collaboration between public units, especially those that interact directly with beneficiaries, will increase the flow of ideas and suggestions to create value.

Therefore, the nature of stakeholder-centered governance varies across different types of successful configuration. When public units display strong stakeholder-centered governance, they can promote value-creating public initiatives with greater emphasis on internal collaborative effort (that is, public-public alliances). Stakeholder-centered governance acts as a mechanism to gather input from multiple actors and flexibly adjust public processes accordingly. In situations with moderately plural collaboration involving public-private and public-nonprofit alliances, stakeholder-centered governance remains an important attribute to access external input, although probably not as central as when public actors emphasize an internal, state-centered approach. Finally, a highly plural configuration involving multiple types of collaboration allows

for a broad and diverse array of inputs to successfully craft and adjust value-creating processes, thereby making the presence of stakeholder-centered governance less necessary. Such highly plural configurations, in particular, represent a significant departure from the extant literature on cross-sector collaboration, which tends to focus on the marginal effect of individual alliances (Quelin et al., Forthcoming), and with scant attention paid to alliances within the public bureaucracy (as in Cabral and Krane, Forthcoming).

Finally, although not central to our theoretical formulation, our contingency analysis also revealed the important role of environmental enabling conditions. Local availability of high-quality human, financial, and infrastructure resources can affect the ability of governments and partners to implement public innovations, while frequent changes in the ruling political party can alter policy direction, thwarting the very survival of the public initiative. Although intuitively necessary for value creation, in our analysis these environmental attributes do not change our previously discussed configuration patterns. In other words, the key contribution of our theory elaboration effort lies in the analysis of complex, synergistic effects brought by plural forms of interdependent public-private action.

CONTRIBUTIONS AND NEW DIRECTIONS

Our empirical results and our theory elaboration effort contributes to the literature in several important ways. Recent research in strategy (Mahoney et al., 2009; Quelin et al., Forthcoming) and public administration (Bryson, Crosby, & Bloomberg, 2015; Osborne, 2006) have stressed the importance of public-private interactions as potential mechanisms leading to value creation for the potential beneficiaries of public initiatives. We contend that a movement towards greater private sector participation in public initiatives and intense utilization of cross-sector resources—referred to as “externalization” (Alford and O’Flynn, 2012)—should not be a response to poor public capacity to lead and execute value-creating activities. In other words, private engagement, even when desirable, is no substitute for weak governments. This point has important implications, as several governments have tried to stimulate various types of public-private arrangements throughout the world (Engel et al., 2014). Public capacity seems to be

critical for the performance of those collaborative endeavors even if private actors are highly engaged. In addition, Deaton (2013: 292) argues that private participation in key public services should not simply divert resources from the public to the private sector—such as when private hospitals hire nurses that could otherwise help expand the reach of the public health system—and that private participation requires capable governments to define policies and guarantee widespread access. Our assertion of the importance of understanding and improving public sector capacity (whether around leadership or execution) calls for greater cooperation between scholars of strategic management and public administration.

Our analysis of multiple forms of collaboration also enhances our understanding of the synergistic effect of collaboration types leading to value creation. While a cursory examination of collaboration in the public sector suggests a diversity of actors and alliance mechanisms, the literature has tended to examine the marginal effect of those alliances in isolation (e.g. public-private partnerships with either for-profit or nonprofit firms). In our discussion, we unveil multiple channels through which various collaboration models can complement one another and jointly promote value creation. Importantly, we argue that public actors can benefit from external ideas even if they do not nurture formal, intense external collaboration. We theorized and found that the presence of stakeholder-oriented governance is especially relevant when the public initiative emphasizes internal public action. Permeability to ideas coming from a host of diverse actors becomes crucial not only to improve service design but also to more holistically engage multiple beneficiaries (Henisz et al., 2014; Klein, Mahoney, McGahan and Pitelis, Forthcoming). The importance of stakeholder-oriented governance, however, diminishes when the public initiative adopts multiple types of internal and external collaboration, possibly because these collaborations become themselves mechanisms of voice and engagement. In other words, future research should also consider stakeholder-oriented governance as a key attribute that can influence the functioning of public-private interactions.

All in all, our work refines and expands existing discussions on how interdependent public and private action can lead to value creation. In this sense, we also contribute to the more

general literature on *hybrid* organizing (Quelin, et al., Forthcoming). Theories based on transaction cost considerations have conceived public-private hybrids as forms that mix elements of private markets and public bureaucracies; for instance, firms in traditional public-private partnerships are autonomous entities but are normally subject to strong public supervision (e.g. Cabral et al., 2013; Williamson, 1999). Organization theory has also examined hybrids through the lens of multiple institutional logics, that is, organizations that encompass multiple objectives and normative traits (e.g. Battilana and Dorado, 2010). In both cases, there is emphasis on how a *single* organizational form—such as a socially-oriented private firm or a public-public partnership—can combine distinct organizing principles and goals.

Our configurational perspective, in contrast, describes a “higher-level hybridism” emerging from the *concurrent* action of multiple organizational forms, which themselves can individually be hybrids (e.g. public-private and public-nonprofit alliances occurring in the *same* project). We thus adopt the term *plural* to refer to multiple collaborative forms and organizational attributes that can jointly influence how public-private interaction leads to value creation (Osborne, 2006). Even our first path, with more emphasis on internal public action, has a great deal of plurality given that it is built on inputs from multiple stakeholders as well as the collaborative action of multiple units within the public bureaucracy. Thus, instead of focusing on single hybrids in isolation, future research should also examine how hybrid collaborations per se can be part of a host of configurational attributes supporting value creation.

There are also several ways in which future research could build upon our findings and improve the understanding of plural forms of interdependent public-private action. Future research can refine measures of value creation by distinguishing between benefits and costs, and identifying the distribution of value across stakeholders (e.g. in some cases beneficiaries can receive improved services but only at high fees, which can result from the appropriation effort of private actors) Also, given that the lack of existing databases coding the outcomes of public initiatives and specific organizational attributes, we had to adopt a “small-N” configuration analysis (Greckhamer et al., 2013). Thus, the generalizability of our results is limited and our

midrange theory elaboration effort is context-specific; for instance, we focus on a few sectors and all our projects are at the municipal level in order to better identify project-level outcomes and attributes. In addition, although we tried to rely on independent studies to assess project outcomes, it is possible that some of our successful projects resulted from the efforts of governments and their partners to advertise their results. Thus, future research could also try to test the relevance of our conditions using a larger number of cases in multiple sectors, countries, and government levels (e.g. federal or state-level). For instance, scholars could examine the impact of collaboration on large infrastructure projects requiring massive capital expenditures, as well as initiatives in a broader range of countries. Novel plural configurations will likely emerge from cases that incorporate a more diverse set of attributes and contextual conditions.

CONCLUSION

In this paper, we advance the discussion of how value creation in public initiatives can potentially emerge from the intertwined action of public and private actors. Our fsQCA analysis reveals not only alternative configurations consistent with positive impact, but also solutions involving multiple public and private attributes and multiple types of collaboration. Contrary to the view that private engagement can supplant weak government effort, we find that public capacity is a key attribute of multiple paths leading to value creation. In addition, we observe the concurrent functioning of diverse successful collaborations with for-profit and nonprofit actors, as well as successful collaborations that occur within the public bureaucracy. Even in our described path involving a higher emphasis on internal public effort, we observe a plural combination of collaborations between public units combined with the presence of stakeholder-oriented governance with high permeability to external and internal inputs. Our work thus opens important avenues for future research by placing a greater emphasis on the role of public capabilities in the context of external public-private collaborations and by describing a richer, plural set of attributes that go beyond the marginal functioning of public-private alliances in isolation. Understanding the complex determinants of value creation in public initiatives will

increasingly require cross-fertilization of disciplines towards a more plural, configurational theory of interdependent public-private action.

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Figure 1. Attributes of Plural Forms of Interdependent Public-Private Action Leading to Value Creation

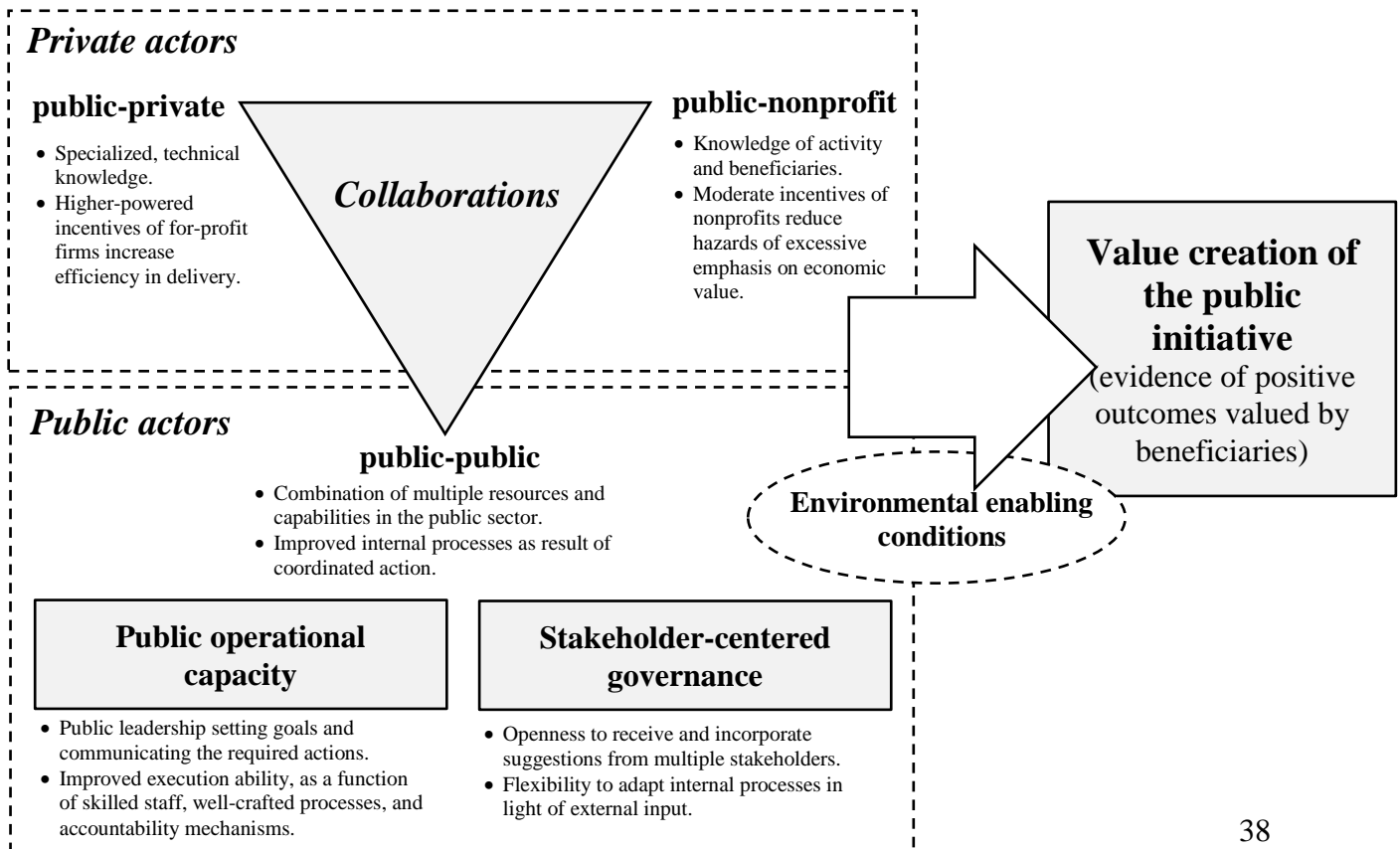


Table 1. Description of the Cases and their Outcomes

Sector/location	Cases with evidence of successful value creation	Cases with evidence of unsuccessful value creation
Education, Brazil	“Sobral Education Program”: Initiative implemented in 2001 to improve the quality of primary education in the municipality of Sobral.	Project to implement new IT devices in schools aimed at improving learning and digital inclusion.
Education, India	“Andhra Pradesh Teacher Performance Pay Initiative”: this project, implemented between 2004 and 2007, sought to improve the quality of primary education through incentives (pay for performance) to teachers	Program to improve education indicators (grades, dropouts), and healthcare indicators (nutritional needs).
Education, South Africa	“KwaZulu-Natal - Siyakha Nentsha”: school-based life-skills program for teenagers, to mitigate the threats of HIV/AIDS in the KwaZulu-Natal province, between 2008 and 2012.	The program provided refurbished computers to schools, funding all costs of connection. The initiative involved the establishment of an operational cyberlab at the school to be used for education and the development of ICT skills.
Bureaucratic Services, Brazil	“São Paulo Poupatempo”: one-stop shop launched in 1997 to consolidate several services and bureaucratic processes involved in the issuance of official documents to citizens.	The program started in 2011 aiming at increasing efficiency and transparency in the inspection of buildings and facilities by public agents.
Bureaucratic Services, India	“Hyderabad e-Seva”: Roll-out of electronic kiosks, launched in 1997, to support service transactions in both rural and urban areas. Kiosks offer public services and facilitate transactions with private firms (payment of phone bills, for example).	In this project, internet and computer services were offered to members of a village community using kiosks, which were established as a self-sustained business with fees levied for various services.
Bureaucratic Services/ Urban Planning, South Africa	“Polokwane Settlement Program”: Starting in 2004, this initiative involved the coordination and centralization of multiple services related to housing, water and sanitation, electricity, health, and education. The project involved the relocation of citizens from slum dwellings to a new settlement, with formal home ownership.	The program aimed to centralize municipal billing databases, replacing multiple, disparate IT systems, to improve the accuracy and completeness of the billing and invoicing processes, as well as improving collection and service quality.
Public Transport, Brazil	“Curitiba BRT System”: A bus rapid transport system (BRT) with capacity to accommodate more passengers at higher speeds. The busways were structured in a corridor format, crossing through central areas of the city. The project started in the 1970s but was substantially expanded thereafter.	The program built dedicated lanes for bicycles across a large city, complemented by comprehensive education policies to control traffic and reduce speed limits.
Public Transport, India	“New Delhi Metro”: metro system providing a cost-effective and environmentally friendly alternative to existing public transport. The metro, whose construction started in 1995, eased the growing pressure on the existing, over-crowded road network.	Launched in 2006, the program aimed to build a bus rapid transport system to upgrade the dilapidated bus infrastructure, to alleviate over-crowded roads and to complement a new metro system.
Public Transport, South Africa	“Cape Town BRT System”: creation of a bus rapid transport system, starting in 2007, in part to support the FIFA World Cup Finals, but also to provide safe, reliable and affordable transport to citizens.	Project with the objective of providing an integrated transport system to support a large city that was about to host a large international event.
Urban Planning/ Bureaucratic Services, Brazil	“Osasco Land Titling Regularization”: Starting in 2005, the program assigned housing property rights to disadvantaged populations through the coordinated distribution of formal land titles in illegally-occupied urban areas.	Urban planning project to transfer all city electricity cables underground and remove the electricity poles. Project goals included reducing maintenance costs and improving the urban landscape of the city.
Urban Planning, India	“Hyderabad Metro Water Supply and Sewerage Board”: The program improved the overall quality of water supply and sewerage treatment in a fast-growing Indian city. Initiated in 1989, the program was implemented through the 1990s.	Project to provide affordable and appropriate housing to slum residents through a rehousing program intended to improve living conditions.
Urban Planning, South Africa	“eThekweni Water and Sanitation”: The initiative brought potable water and sanitation facilities to a low-income metropolitan area that had practically none. The program started in the mid-1990s.	Initiative to replace the old infrastructure for electricity services. The goal was to reduce energy usage through more accurate metering and billing operations.

* For the cases of failure, we do not identify the name of the project or specific location where it was implemented. This was a condition set by some interviewees to release confidential information.

Table 2. Descriptive Statistics and Correlations

Variable	Mean	S.D.	Min	Max	1	2	3	4	5	6
1 Success	2.97	1.64	1.00	5.00	1					
2 Public-Public Collaboration	2.93	1.06	1.00	4.50	0.57***	1				
3 Public-Private Collaboration	3.00	1.12	1.00	5.00	0.1907	0.0315	1			
4 Public-Nonprofit Collaboration	2.37	1.20	1.00	5.00	0.3084	0.2413	0.2864	1		
5 Operational Capacity	3.35	1.40	1.13	5.00	0.7599***	0.5955***	0.1529	0.5005***	1	
6 Stakeholder-Centered Governance	3.09	0.91	1.59	4.67	0.6581***	0.4588**	0.2914	0.4176**	0.8242***	1
7 Environmental Conditions	3.60	0.85	1.75	4.92	0.5065**	0.6240***	-0.0455	0.2460	0.6123***	0.3278

Note: Descriptive statistics and correlations are based on raw (uncalibrated) measures. *** $p < 0.01$; ** $p < 0.05$ and * $p < 0.10$.

Table 3. Configurations Consistent with Evidence of Positive Value Creation

Attribute	Partial Model		Main Model		
	1a	1b	2a	2b	2c
Public-Public Collaboration	●		●		●
Public-Private Collaboration		●		●	●
Public-Nonprofit Collaboration	⊗	●	⊗	●	●
Public Operational Capacity	●	●	●	●	●
Stakeholder-Centered Governance			●	●	
Consistency	0.87	0.92	0.91	0.91	0.90
Raw Coverage	0.49	0.51	0.49	0.49	0.44
Unique Coverage	0.21	0.23	0.21	0.07	0.02
Number of Cases	7	7	6	6	5
Exemplary Cases			New Delhi Metro	KwaZulu Natal Siyakha Nentsha	Curitiba BRT System
Overall solution consistency	0.89		0.91		
Overall solution coverage	0.72		0.72		

Notes: Central conditions are represented by "●" (presence) and "⊗" (absence); contributing conditions by "●" (presence) and "⊗" (absence). Blank spaces indicate a "don't care" condition; that is, the attribute is not relevant to that particular configuration. Minimum thresholds used in the analysis are consistency of 0.8 and frequency of one case per configuration.

Table 4. Configurations Consistent with Evidence of Positive Value Creation Considering the Role of Environmental Enabling Conditions

Attribute	Partial Model		Main Model		
	3a	3b	4a	4b	4c
Public-Public Collaboration	●		●		●
Public-Private Collaboration		●		●	●
Public-Nonprofit Collaboration	⊗	●	⊗	●	●
Public Operational Capacity	●	●	●	●	●
Stakeholder-Centered Governance			●	●	
Environmental Conditions	●	●	●	●	●
Consistency	0.87	0.91	0.91	0.91	0.90
Raw Coverage	0.49	0.49	0.49	0.46	0.44
Unique Coverage	0.21	0.21	0.21	0.05	0.02
Number of Cases	7	7	6	6	5
Overall solution consistency	0.88		0.91		
Overall solution coverage	0.70		0.70		

Notes: See Table 3.

Table 5. Configurations Consistent with Evidence of Unsuccessful Value Creation

Attribute	5a	5b	5c	5d	5e	6a	6b	6c	6d
Public-Public Collaboration	⊗	⊗	⊗		●	⊗		⊗	●
Public-Private Collaboration	⊗		⊗	⊗			⊗	⊗	●
Public-Nonprofit Collaboration	⊗	⊗		●	●	⊗	●	⊗	●
Public Operational Capacity		⊗	⊗	⊗	⊗	⊗	⊗	●	⊗
Stakeholder-Centered Governance						⊗	⊗	●	●
Consistency	0.88	1.00	1.00	1.00	1.00	1.00	1.00	0.82	1.00
Raw Coverage	0.48	0.48	0.38	0.24	0.24	0.48	0.24	0.31	0.21
Unique Coverage	0.14	0.14	0.00	0.00	0.04	0.28	0.07	0.14	0.04
Number of Cases	5	5	4	2	2	5	2	2	1
Overall solution consistency			0.92					0.88	
Overall solution coverage			0.76					0.70	

Notes: See Table 3.

]

Table 6. The Necessity of the Attributes for Successful Value Creation

	Consistency	<i>p</i> -value for consistency benchmark of		
		0.5 ("more often than not")	0.65 ("usually")	0.8 ("almost always")
Public-Public Collaboration	0.84	0.003***	0.042*	0.275
Public-Private Collaboration	0.70	0.073*	0.347	0.795
Public-Nonprofit Collaboration	0.58	0.387	0.787	0.981
Public Operational Capacity	0.91	0.003***	0.042**	0.275
Stakeholder-Centered Governance	0.88	0.003***	0.042**	0.275
Environmental Enabling Conditions	0.93	0.000***	0.006***	0.069*
Public-Public <i>or</i> Public-Private <i>or</i> Public-Nonprofit Collaborations	0.95	0.000***	0.006***	0.069*

Note: . *** $p < 0.01$; ** $p < 0.05$ and * $p < 0.10$.