

Stakeholders, critical success factors, and value creation in public-private partnerships

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This study analyzes the role of stakeholders in the value creation in public-private partnerships in Brazil, considering their motivations and the critical factors that determine the success of this type of collaboration. We analyzed partnerships between federal, state, and local governments through content analysis of documents and interviews with representatives of the public and private sectors involved in such partnerships. Stakeholders identification was conducted through the simultaneous use of models that allow demonstrating the multiple roles played by the actors, i.e. the role in public policies formulation and implementation (R. C. Gomes et al., 2010), their potential for threat or cooperation (Savage et al., 1991), and salience degree (Mitchell et al., 1997). In addition, the most recurrent critical success factors, value elements, and determining factors for cooperation in such partnerships were identified. Furthermore, an analytical model is proposed to identify such elements so that decision-makers can devise a strategy to deal with them.

Keywords: public-private partnerships; stakeholders; critical success factors; determinants of cooperation; value creation.

Stakeholders, fatores críticos de sucesso e geração de valor em parcerias público-privadas

Este estudo tem como objetivo analisar o papel dos *stakeholders* na geração de valor em parcerias público-privadas no Brasil, considerando suas motivações e os fatores críticos que determinam o sucesso desse tipo de colaboração. Para tanto, foram analisadas parcerias dos governos federal, estaduais e municipais por meio da análise de conteúdo de documentos e entrevistas com representantes dos setores público e privado envolvidos. A identificação dos *stakeholders* foi feita mediante a utilização simultânea de modelos que permitem demonstrar os múltiplos papéis desempenhados pelos atores na formulação e na implementação de políticas públicas (R. C. Gomes et al., 2010), seu potencial de ameaça ou de cooperação (Savage et al., 1991) e seu grau de saliência (Mitchell et al., 1997). Além disso, foram identificados os fatores críticos de sucesso, os elementos de valor e os fatores determinantes para a cooperação mais recorrentes nessas parcerias. Ademais, foi proposto um modelo de análise que permite a identificação de tais elementos, a fim de possibilitar que o tomador de decisão trace uma estratégia para lidar com eles.

Palavras-chave: parcerias público-privadas; *stakeholders*; fatores críticos de sucesso; determinantes da cooperação; geração de valor.

Stakeholders, factores críticos de éxito y generación de valor en alianzas público-privadas

Este estudio tiene como objetivo analizar el papel de los *stakeholders* en la generación de valor en las alianzas público-privadas en Brasil, considerando sus motivaciones y los factores críticos que determinan el éxito de este tipo de colaboración. Con este fin, se analizaron las asociaciones entre los gobiernos federal, estatales y municipales, a través del análisis de contenido de documentos y entrevistas con representantes de los sectores público y privado involucrados en tales asociaciones. La identificación de los *stakeholders* se realizó mediante el uso simultáneo de modelos que permiten demostrar los múltiples roles que desempeñan los actores en la formulación e implementación de políticas públicas (R. C. Gomes et al., 2010), su potencial de amenaza o de cooperación (Savage et al., 1991) y su grado de notoriedad (Mitchell et al., 1997). Además, se identificaron los factores críticos de éxito más frecuentes, los elementos de valor y los factores determinantes para la cooperación en tales alianzas. Asimismo, se propone un modelo de análisis que permite la identificación de dichos elementos para que el tomador de decisiones pueda diseñar una estrategia para tratar con ellos.

Palabras clave: alianzas público-privadas; *stakeholders*; factores críticos de éxito; determinantes de la cooperación; generación de valor.

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1. INTRODUCTION

Although investment in infrastructure is relevant for economic growth, governments do not always have the necessary resources. For this reason, public managers seek to make partnerships with the private sector, as is the case of the public-private partnership (PPP), which has been used both to overcome public resources' constraints and to achieve the benefits that result from private companies' abilities and resources (Quelin, Cabral, Lazzarini, & Kivleniece, 2019).

In Brazil, PPP is an instrument for the implementation of public policies defined by Law No. 11,079 (Lei nº 11.079, de 30 de dezembro de 2004), as a contract through which public administration hires a private entity for service provision, and the private partner can be paid only by the public entity (administrative), or by the public body and users (sponsored).

However, PPPs are not always successful. There are 'critical success factors' (CSF), a term used to name elements that affect PPPs' performance, facilitating or hindering this partnership (Firmino, 2018).

This study intends to identify actors and critical factors involved in PPPs' value creation in Brazil. In addition, it examines the determining factors for making this type of partnership and creating value for its stakeholders. Therefore, the general objective of this research is to analyze how stakeholders act towards value creation in PPPs, taking into account their motivations and critical success factors.

To this end, we propose an approach that combines stakeholder analysis models (R. C. Gomes, Liddle, & L. D. O. M. Gomes, 2010; Mitchell, Agle, & Wood, 1997; Savage, Nix, Whitehead, & Blair, 1991), and the literature on critical success factors in PPPs (Thamer & Lazzarini, 2015), determinants of interorganizational relationships (Oliver, 1990), and value creation (Quelin et al., 2019).

We used a multiple case study that examined PPPs from all public entities in the country, which is timely. Although PPPs are useful instruments for adding value to public policies (Kivleniece & Quelin, 2012), little is known about how stakeholders create this value (Villani, Greco, & Philips, 2017). Thus, there is a gap in the literature on how public and private organizations interact for value creation (Quelin et al., 2019). On the other hand, Freeman, Phillips, and Sisodia (2020) observe that studies on stakeholders can contribute to examine this phenomenon.

Other motivation for the paper is the lack of information on the performance of PPP projects and their constraints (Reis & Cabral, 2017), which leads to CSFs, on which there are few articles that analyze PPPs in Brazil (Thamer & Lazzarini, 2015).

In addition to this Introduction, the paper has four other topics. Section 2 presents the theoretical foundations. Section 3 shows the methodological procedures employed. Section 4 presents the results, followed by the final remarks.

2. THEORETICAL FRAMEWORK

In this chapter, we initially present PPPs' characteristics, as well as stakeholder analysis models and the determinants for collaboration between the partners. Next, we describe the concepts of critical success factors, of value, and other elements necessary to understand value creation in PPPs.

2.1 Public-Private Partnerships

The use of PPPs grew in a context of reduced state intervention in the economy, and as a way to overcome the lack of public resources for infrastructure investments. Thus, governments began to induce private investment, due to the small fiscal space and increasing social demands (Thamer & Lazzarini, 2015).

In this scenario, the PPP emerged; it is a hybrid organizational arrangement, based on collaborative contractual relationships (Thamer & Lazzarini, 2015), long-term (Firmino, 2018), built between the public and private sectors, which operate to achieve common objectives (Hodge & Greve, 2007), in order to provide infrastructure and related services to the population.

In addition, PPP can be considered an institutional arrangement (Firmino, 2018), since it is based on a regulation mark, under Law No. 11,079 (Lei nº 11.079, de 30 de dezembro de 2004). This is because institutions are the rules of the game, formal rules that define behaviors and social and economic structures (North, 1991). The enactment of that law established the institutional environment to start applying the PPPs model in Brazil, by defining the modes (administrative and sponsored) and the characteristics of PPPs' contracts (Thamer & Lazzarini, 2015). The implementation of this partnership involves a set of stages, as described in Box1.

BOX 1 STAGES OF A PPP

Stage	Description
Elaboration of technical studies	Studies on demand, on engineering and architecture, environmental, on economic-financial feasibility, and legal modeling.
Public Consultation	Technical studies available on the internet.
Analysis by the Accounting Court	Studies, suggestions, and questionings resulting from public consultation are examined by the control agency.
PPP bidding	Auction and contract signing.
Civil work financing	Contracting of financing by the private partner.
Construction	Infrastructure construction and acquisition of equipment.
Contract management	Hiring of personnel and inputs necessary for service provision.
Management control	Audit by the granting authority and/or an independent verifier.

Source: Adapted from Cabral, Fernandes, and Ribeiro (2016).

2.2 Stakeholders' Analysis Models and Determinants of Collaboration in PPPs

PPP is a cooperative arrangement, composed of public and private partners, which affects other players, and refers to the Stakeholder Theory. According to Freeman and Reed (1983, p. 91), stakeholder is "any group or person that can affect and be affected by the achievement of the organization's goals".

Considering that these actors may affect the organization's activities, it is necessary to identify them. Therefore, we next present the stakeholder identification models used in this research.

Savage et al. (1991) classify the actors according to their potential for threat or cooperation with the organization. If the organization depends on the stakeholder, he/she/it will have the potential to threaten it. On the other hand, if the actor depends on the organization, he/she/it will tend to cooperate. According to this model, actors can be: (i) supporters, when they offer a low potential threat to the organization, and a high potential for cooperation; (ii) marginal, when they are neither highly threatening nor cooperative; (iii) non-supporters, when they represent a great potential threat and low potential for cooperation; and (iv) mixed blessing, when they have a high potential to threaten and to cooperate.

Mitchell et al. (1997) rank stakeholders based on the following attributes: power to influence the organization, legitimacy of the relationship with the organization, and urgency in meeting their interests.

These authors divide the actors in 3 groups. The first comprises those that have only one of the attributes: dominant (power), arbitrary/discretionary (legitimacy), or claimer (urgency). The second includes those that have two attributes: dominant (power and legitimacy), dependent (urgency and legitimacy), and dangerous (power and urgency). And the third refers to the definitive, which is the most important stakeholder, with the three attributes, thus receiving priority attention.

The other model used in this study (R. C. Gomes et al., 2010) contributes to the current stakeholder research agenda, as it describes the type of influence that actors can exercise on government decision-making. This is because one of the mentioned gaps arises from the fact that "some of these influences are not yet addressed in the literature". Thus, it is necessary to develop ways to analyze the determining performance factors of public organizations (R. C. Gomes, Osborne, & Guarnieri, 2020, p. 463).

R. C. Gomes et al. (2010) classify stakeholders in five categories: regulator, collaborator, legitimizer, controller, and agenda setter. The "regulator" category comprises actors who have the capacity to include institutional and technical requirements in the decision-making process. The "collaborator" includes actors that help the local government to provide public services. The "legitimizer" comprehends citizens and the local community, who are the users of public services. The "controller" is composed of control bodies and other actors that have the power of holding the public manager accountable and forcing him/her to comply with rules related to the efficient use of public resources. Finally, the "agenda setter" refers to the actors whose influence stems from the power to define the agenda that the government must follow.

Vieira (2020) proposes a procedure based on the simultaneous application of stakeholder analysis models. This approach allows the identification of the most relevant stakeholders, based on their willingness to cooperate or harm a particular organization or public policy; it also takes into account the institutionally formalized role of each actor involved. In this research, we adopted a similar approach together with the attributes described by Mitchell et al. (1997).

2.2.1 The determinants of collaboration between stakeholders in PPPs

An important aspect about the performance of stakeholders in PPPs regards the reasons that lead partners to cooperate for the partnership’s development, which we can analyze through the theoretical lens of interorganizational relationships (Oliver, 1990). IOR are lasting resource transactions between two or more organizations, and in PPPs such transactions occur between public and private organizations.

The author explains that the determinants that drive organizations into an interorganizational relationship are need, asymmetry, reciprocity, efficiency, stability, and legitimacy.

BOX 2 COOPERATION DETERMINANTS

Determinant	Description
Need	Links established between organizations that aim to meet institutional requirements (Oliver, 1990).
Asymmetry	Situations where, for lack of resources, the organization makes a partnership with organizations that have funds (Oliver, 1990). This theoretical approach is compatible with the fact that hybrid organizations, such as PPPs, are the result of pooling capabilities and resources to provide solutions to problems, such as resource shortage (Villani et al., 2017).
Reciprocity	Companies seek to achieve common goals (Oliver, 1990).
Efficiency	Intention to improve their productivity and reduce transaction costs (Oliver, 1990). PPP has the potential to decrease transaction costs, because integration between construction and operation is an incentive for the private partner to execute these stages with operational efficiency, in order to minimize costs without harming quality, since it will be compensated according to its performance (Reis & Cabral, 2017). On the other hand, PPP is a long-term contractual arrangement, and given the incompleteness of this type of contract that results from uncertainty about the future, can raise opportunistic behaviors that increase transaction costs (Firmino, 2018). Therefore, a PPP contract must be flexible to allow for changes, due to unexpected contingencies (Williamson, 1979).
Stability	Strategy of adjustment to environmental uncertainty, since that uncertainty leads organizations to establish relationships in order to attain stability and predictability (Oliver, 1990).
Legitimacy	Need to show that the organization’s activities comply with existing standards and beliefs. This happens because organizations operate in institutional environments, which can put pressure on them to justify their activities (Oliver, 1990).

Source: Elaborated by the authors.

Finally, the decision to establish a relationship with another organization is generally based on some of the above-mentioned determinants; therefore, they should not be analyzed individually (Oliver, 1990).

2.3 Critical Success Factors in PPPs

These factors refer to those areas of activities where favorable results are necessary for the manager to achieve his/her goals (Rockart, 1982). These events require the manager's attention, can be internal or external to the organization, and are relevant to the progress of PPPs projects (Thamer & Lazzarini, 2015).

They involve economic, political, administrative, environmental, cultural, and regulatory aspects, so they can be classified in such categories (Menezes, Hoffmann, & Zanquetto, 2019). Some factors regard the project's adherence to the guidelines of high government levels and other aspects of a political nature (political). Others relate to the work developed by government officials and to the administrative structure of the bodies responsible for structuring and managing PPPs (administrative).

There are also elements related to meeting the environmental guidelines applicable to PPP (environmental), to the relationship between partners (cultural), to the economic situation or to economic aspects associated with the partners (economic), and to aspects related to project regulation, such as the appropriate legislation (regulatory).

Thus, support or political will (Kylie & Chan, 2015) is a political factor. The PPP unit (Firmino, 2018) is an administrative factor, as it relates to the administrative structure of the bodies responsible for organizing and managing the PPP. In the 'cultural' category are the factors concerning the relationship between the partners, as is the case of their culture in relation to the PPP (Cutrim, Tristão, & Tristão, 2017). In the 'environmental' category is the 'environmental regularization' factor (Kylie & Chan, 2015). In the 'economic' category are factors such as economic stability (Firmino, 2018). Finally, in the 'regulatory' category, there is the appropriate regulation mark (Kylie & Chan, 2015).

2.4 Value Creation in PPPs

Caldwell, Roehrich, and George (2017) define value as the sum of the benefits achieved through the partnership. The interaction between partners in a PPP is due to the search for value creation. Barney (2018) states that the partnership between public and private entities creates value because it gathers complementary resources and organizational capacities to create a new source of value that could not exist if organizations acted separately.

Such partnerships have become a fundamental way of value creation in the public interest (Quelin, Kivleniece, & Lazzarini, 2017). This refers to its social value, created when the PPP generates benefits not only for the partners, but also for other stakeholders, which are positive externalities that result from the PPP.

PPPs should be the preferred option when there are positive externalities (Luo & Kaul, 2019). Hence, the analysis of this partnership's performance requires an understanding of aspects that go beyond the gains of the private partner, as it should include notions of social value. These social results must consider the benefits and costs involved in implementing the partnership (Quelin et al.,

2017). Thus, the ‘value for money’ study should involve an analysis of costs and benefits for society resulting from the PPP option, against those resulting from other forms of service provision (Governo de São Paulo, 2020).

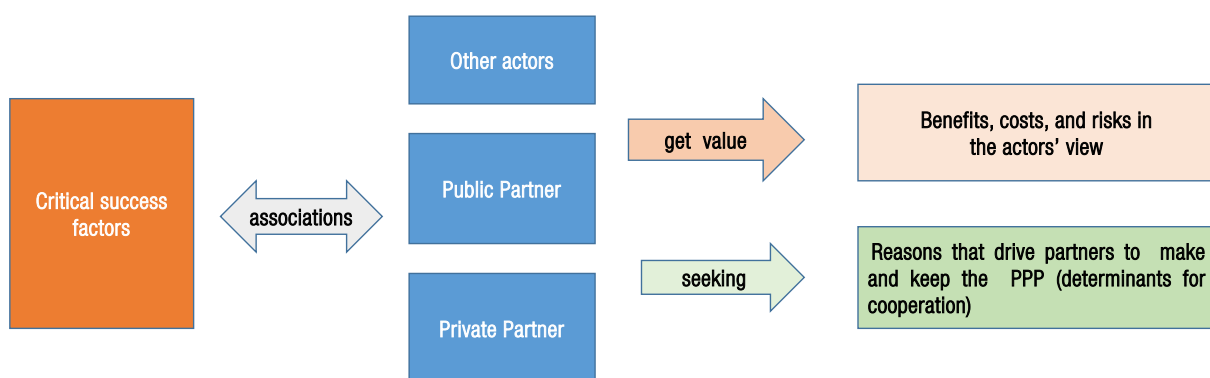
Although the literature highlights the elements that make up the value (benefits and costs), and their beneficiaries (partners and other players), there is a complementary aspect that, although addressed in the literature on public value (Benington, 2015), was not identified in studies on PPPs in Brazil. It is the value perceived by the actors; that is, the value is their perception of the benefits, costs, and risks resulting from the partnership, as we show in the results of this research.

In addition, it is important to analyze value creation, since the development of an organization depends on its capacity to create value for satisfying stakeholders’ interests; therefore, value is the central issue of the Stakeholder Theory (Freeman et al., 2020). A modern definition of stakeholder refers to the actor that creates and captures economic value in his/her/its interactions with the organization (Garcia-Castro & Aguilera, 2015).

Value creation can occur in different ways, considering that PPP performance can be expressed through financial values, or equality in access and the quality of public service, or even through users’ satisfaction with the service (Wang, Xiong, Wu, & Zhu, 2018). Other dimensions of this value are social relationships (Quelin et al., 2019), operational efficiency (Caldwell et al., 2017), and externalities and resource complementarity (Kivleniece & Quelin, 2012). Therefore, value can have an intangible dimension - it cannot be measured in monetary terms -, or tangible, when it does.

Finally, in Figure 1, we propose an analysis model for PPPs’ stakeholders that shows the theoretical constructs explained above and facilitates achieving potential answers to the questions that guide this research; it enables the identification of the main actors, the critical factors associated to them, and the determining factors for collaboration and value creation in PPPs.

FIGURE 1 ANALYSIS MODEL



Source: Elaborated by the authors.

3. METHOD

We carried out the research through multiple case studies, to analyze five PPPs, selected by criteria of geographic location, sector, and government level. In Brazil, states and cities use PPPs more - the city of Belo Horizonte and the states of São Paulo, Minas Gerais, and Bahia are the federation entities that most hired PPPs (Radar PPP, 2020). Therefore, we examined PPPs from these bodies, besides the only federal government's PPP underway.

Box 3 shows general information on the examined PPPs.

BOX 3 PPPS ANALYZED

Name	Sector	Purpose	Year of contracting	PPP Type	Term (in years)	Contract value (R\$ billion)
Datacenter	Information Technology	Management, maintenance, and operation of the building infrastructure of Banco do Brasil and Caixa Econômica Federal IT facilities.	2010	Administrative	15	0.98
Jaguaribe	Sanitation	Construction and operation of a system for home sewage treatment in the cities of Salvador and Lauro de Freitas.	2006	Administrative	18	0.62
Rodovia MG-050	Transportation	Exploitation of Highway MG-050.	2007	Sponsored	25	2.2
Casa Paulista	Housing	Construction of social housing and infrastructure in the central region of the city of São Paulo, and provision of services such as condominium management and borrower portfolio management.	2015	Administrative	20	1.86
Hospital Metropolitano	Health	Execution of engineering services and works, as well as support services (not-assistance) for the hospital's operation.	2012	Administrative	20	1

Source: Elaborated by the authors.

We collected data through documentary analysis and semi-structured interviews. We got official documents, such as PPPs’ contracts, reports, and additional information at PPPs’ units and on the sites of the public and private partners.

BOX 4 **INTERVIEW SCRIPT**

Objectives	Questions	Theoretical framework
Analyze the determinants for establishing and keeping the PPP	What are the reasons that drive partners to make and keep the partnership?	Oliver (1990)
Identify critical success factors	What do you consider a successful PPP? What factors facilitate it? Why do they facilitate it? How to foster the occurrence of these factors? What factors hinder it? Why do they hinder it? How to overcome these obstacles?	Kyie and Chan (2015), Firmino (2018), and others
Identify and classify stakeholders	What are the actors involved in PPP development? How do stakeholders act regarding the critical factors above mentioned? Why do they act this way?	Freeman (1984), Savage et al. (1991), Mitchell et al. (1997), R. C. Gomes et al. (2010)
Analyze value creation	What are the benefits for partners and for society from PPPs? Where do these benefits come from? What are the costs and risks for the partners and society from the PPP? Where do these costs come from?	Kivleniece and Quelin (2012), Villani et al. (2017), Caldwell et al. (2017), Quelin et al. (2019)

Source: Elaborated by the authors.

The group of interviewees comprises government officials and representatives of the private partners, Accounting Courts, and funders. We chose them for their practical knowledge, for their involvement in PPPs implementation. In addition, we adopted the “snowball” technique, and conducted new interviews with persons indicated by a previous interviewee. This was the case with the representative of the Inter-American Development Bank (IDB), suggested by the National Bank for Economic and Social Development (BNDES) representative.

Interviewing public and private managers involved with the implementation of PPPs is a usual research method in Brazil (Cabral et al., 2016; Reis & Cabral, 2017). We also interviewed representatives of Accounting Courts and funders, because of their role and researchers' easy access to them.

The interviews took place from July to October 2019, and were by telephone (13) and in person (6), recorded and later transcribed. Altogether, we did 19 interviews, with an average duration of 25 minutes. We stopped the interviews according to the principle of theoretical saturation, when new participants started to repeat almost the same information.

Box 5 presents information on interviewees' profile, identified by a number (1 to 19) that indicates the chronological order of the interviews.

BOX 5 INTERVIEWEES' PROFILE

Interviewee	Institution	Position
1	University of Brasília	Researcher
2	CPPI	Coordinator
3	BNDES	Economist
4	BB and CEF	Manager
5	GBT S.A	Director
6	IDB	Expert in Transportation
7	PPP unit at the State of Bahia	Manager
8	Accounting Court of the State of Bahia (TCE-BA)	Coordinator
9	Bahia Company for Water and Sanitation (EMBASA)	Manager
10	Health Department of Belo Horizonte (SESABH)	Advisor
11	BRK Ambiental Jaguaribe S.A	Analyst
12	Federal Accounting Court (TCU) 1	Auditor
13	TCU 2	Auditor
14	Accounting Court of the State of Minas Gerais (TCE-MG)	Auditor
15	Infrastructure Department of the State of Minas Gerais (SEINFRA-MG)	Manager
16	Hospital Metropolitano	Director
17	Housing Department of the State of São Paulo (SEHAB-SP)	Coordinator
18	Novo Metropolitano S.A	Manager
19	Canopus S.A	Manager

Source: Elaborated by the authors.

After transcribing the interviews, we did a content analysis according to Bardin’s protocol (2011). We created a system composed of *ex ante* categories of analysis, based on our theoretical framework. Some categories are of the *ex post* type, since the field trip brought new information on some constructs. This was the case of the categories proposed for value creation, where benefits and costs were associated with the determinants of interorganizational relationships, in order to build a dialogue between the two theoretical approaches.

BOX 6 ANALYSIS CATEGORIES

Categories	Subcategories	Aspects to assess	Theoretical framework
Stakeholder	Regulator, collaborator, legitimizer, controller, and agenda setter.	Role in the formulation and implementation of the public policy.	R. C. Gomes et al. (2010)
	Asleep, discretionary, claimer, dominant, dependent, dangerous, and definitive.	Degree of relevance for the organization.	Mitchell et al. (1997)
	Supporters, marginal, non-supporters, and <i>mixed blessing</i> .	Potential for cooperating or menacing.	Savage et al. (1991)
Critical success factors	Political, administrative, environmental, cultural, economic and regulatory.	Elements that facilitate or hamper PPP development.	Kyie and Chan (2015), Menezes et al. (2019), and others
IORs Determinants	Need, asymmetry, reciprocity, efficiency, stability and legitimacy.	Reasons for making and keeping the PPP.	Oliver (1990)
Value creation	Efficiency, asymmetry, stability, socioeconomic, political and administrative.	Benefits, costs, and risks resulting from the PPP.	Quelin et al. (2019) and others

Source: Elaborated by the authors.

Finally, to increase research quality, we used data triangulation (Derzin & Lincoln, 2005), to compare data from the interviews with those from bibliographical and documentary survey.

4. RESULTS

In this section, we present the results from the comparative analysis of PPPs, in order to identify the most important actors, critical factors, determinants of cooperation, and the most recurrent elements of value in these partnerships, as well as the association between stakeholders and the most relevant critical factors.

4.1 Stakeholders

From the analysis of the aforementioned PPPs, we observed more than 50 stakeholders, which work in the public and private sectors, in the three levels of the federation and in the third sector, as is the case of civil associations. After this identification stage, we followed a procedure similar to that proposed by Vieira (2020) for stakeholder analysis, in order to apply simultaneously the models of Savage et al. (1991), Mitchel et al. (1997), and R. C. Gomes et al. (2010). This procedure enabled identifying the actors with the greatest influence capacity, according to their willingness to cooperate or harm the PPP, also considering the type of institutional role.

For Mitchell et al. (1997), stakeholders with the highest influence capacity are those classified as definitive, since they have power, legitimacy, and urgency in demand. Box 7 shows only the definitive stakeholders observed in the examined PPPs.

BOX 7 STAKEHOLDERS' ROLES

Category	Actors and definitive supporters	Role
Collaborators	Private Partners (GBT S.A., BRK Ambiental, AB Nascentes das Gerais S.A., Canopus S.A. and Novo Metropolitan S.A.) CGPPPs of the Federal Government, of the States of Bahia, Minas Gerais and São Paulo, and of the City of Belo Horizonte Chiefs of the Executive Branch (President of the Republic, Governors of the States of Bahia, Minas Gerais, and São Paulo, and Mayor of Belo Horizonte) Autonomous Social Service Hospital Metropolitan	Help the government to provide public services to users.
Regulators	Chiefs of the Executive Branch	Responsible for formatting the legal framework on PPPs through normative acts such as a bill and provisional measure.
Agenda Setters	Public Partner (CEF, BB, Embasa, SEINFRA-MG, SEHAB-SP and SESABH)	Define the agenda that the government must meet, which, in this case, regards defining the contract clauses that will rule the partnership.
Controllers	CGPPPs Chiefs of the Executive Branch	Supervise PPP's execution.
Legitimizers	Users (Rodovia MG-050, Hospital Metropolitan, and housing complex of Casa Paulista) Local Residents (cities crossed by Rodovia MG 050, of the Barreiro and Milionários districts in Belo Horizonte, and of the housing complex of Casa Paulista)	Service users and the local community are typical examples of legitimizing actors (R. C. Gomes et al., 2010).

Source: Elaborated by the authors.

Due to the criterion adopted for actor's selection - only definitive actors -, Box 7 does not mention some identified stakeholders. This is the case, for example, of regulatory agencies, which inspect the service provision object of PPPs, and of the federal, state, or local representatives whose performance involves budget approval - resources for the payment of the public consideration - and formatting the PPP regulation mark.

In addition, we identified actors that assist partners through the contractual relationships they have with them. These are consulting companies that collaborate in the development of technical studies, suppliers of the private partner, and banks that provide the necessary resources to the private partner for implementing the partnership. We observed that the implementation of a PPP involves a network of contracts comprised by the main contract, signed by the partners, and by contracts between the partners and other actors that collaborate with them.

Box 7 shows that some identified actors confirm the results of other studies (Cabral et al., 2016), as is the case of the partners, the PPP Management Committee (CGPPPs), users, and local residents. On the other hand, we identified new actors, such as the head of the Executive Branch and the Autonomous Social Service of Hospital Metropolitano (SSAHM), whose peculiarity we explain ahead.

The categorization presented in the box also allows identifying similarities and differences in actors' roles. For example, there is a similarity in the performance of public and private partners in these PPPs, since they act, respectively, as agenda setters and collaborators. The same occurs with CGPPP and the chief of the Executive Branch, who act as controllers. The head of the Executive Branch also acts as a regulator, as he is responsible for formatting PPPs' normative framework, whose example is Law No. 11,079 (Lei nº 11.079, de 30 de dezembro de 2004), which resulted from a federal bill.

On the other hand, there is a difference between users and local residents. Regarding the former, the divergence stems from the fact that, in MG-050, Hospital Metropolitano, and Casa Paulista PPPs, this actor was considered definitive, for holding the urgency attribute. This is because one of the performance indicators regards the treatment given to users, so that their demands receive the partners' attention. In Datacenter and Jaguaribe PPPs, as there is no similar indicator, only the attributes 'legitimacy' and 'power' were considered; therefore, these PPPs' users were classified as dominant.

In addition, although not described in Box 7, we identified a set of actors that seem to be unique to some of the PPPs studied. This is the case of the Central Bank (Bacen), which regulates the banking sector, and where the public partners of the Datacenter PPP operate. In the case of the MG-050 PPP, civil associations of the cities crossed by the highway, whose requests changed the PPP object, stand out, as the Commercial Association of Divinópolis' claim regarding the highway duplication. Another example refers to the Casa Paulista PPP, where civil associations benefited from the delivery of housing units.

Stakeholders' identification shows that a PPP is a complex institutional arrangement, whose implementation involves not only public and private partners, which have more visibility for being the actors that celebrate the PPP contract. It also involves actors that benefit from the partnership's implementation, which have functional attributions that lead them to supervise the work, as is the

case of Bacen (regulatory agent), and actors that participate in this stage for other functional reasons, such as CGPPP and the head of the Executive Branch.

Furthermore, through Box 7, we bring theoretical contributions to R. C. Gomes et al. (2010) model, since some actors that we identified have additional functions to those provided in that model. This occurs with the local community representatives (civil associations), which act as legitimizers and agenda setters, as they make requests to partners that imply a partial modification of the PPP object. This was the case of Highway MG-050, where civil associations in the cities crossed by it requested works not initially planned.

Box 8 presents comments on the classification of the mentioned actors as definitive.

BOX 8 DEFINITIVE STAKEHOLDERS

Actors	Description
Private Partners and Autonomous Social Service Hospital Metropolitan	<p>Power – resource control and technical knowledge (expertise in managing the service object of PPP) essential for partnership implementation</p> <p>Legitimacy – recognized, in Law No. 11,079 (Lei nº 11.079, de 30 de dezembro de 2004), as an organization able to execute the service object of PPP; that is, there is a legal provision of contracts between the public administration and private firms for providing certain services. We should remember that legitimacy is “a general perception that the organization actions are appropriate regarding a system of regulations and values socially built” (Mitchell et al., 1997, p. 869). Hence, if the legal framework foresees this possibility, the partners have legitimacy to celebrate the partnership.</p> <p>Urgency – their demands should receive immediate attention from the other partner; if these demands are not met, service provision can be interrupted.</p>
Public Partner	<p>Power – controls essential resources for partnership's execution, as is the case of the resources for public consideration and for a technical team, which is crucial for developing and managing the partnership.</p> <p>Legitimacy – has the institutional competence to celebrate and manage the partnership, as recognized by Law No. 11,079 (Lei nº 11.079, de 30 de dezembro de 2004).</p> <p>Urgency – public partner's demands receive immediate attention from the private partner, since the latter's compensation depends on the payment by the former.</p>
CGPPPs and Chief of the Executive Branch	<p>Power – have legal prerogatives associated with the definition of priority services for execution under the PPP regime, with project approval, and with the supervision of the partnership's implementation.</p> <p>Legitimacy – have institutional competence to define what will be executed under the PPP regime, authorize contracting, and monitor its implementation.</p> <p>Urgency – given such prerogatives, the public partner seeks to meet the requests of these actors, under penalty of not being able to implement the PPP.</p>

Continue

Actors	Description
Users	<p>Power – public partner’s revenue depend on them (e.g. toll tariff of Highway MG 050).</p> <p>Legitimacy – public service users (R. C. Gomes et al., 2010).</p> <p>Urgency – one performance indicator takes into account the treatment given to users. Therefore, their demands receive attention from the private partner.</p>
Local Residents	<p>Power – ability to mobilize and influence partnership’s execution. The local community is affected by partnership’s implementation, and if it does not support the PPP, it can create obstacles, such as protests (Dorobantu & Odziemkowska, 2017).</p> <p>Legitimacy – a typical example of a legitimizing actor, since they represent the local community (R. C. Gomes et al., 2010).</p> <p>Urgency – such residents, sometimes, are users of the service object of the PPP (Rodovia MG 050 and Hospital Metropolitan), so that he treatment they receive is included in the performance indicators. In addition, their mobilization capacity attracts partners’ attention.</p>

Source: Elaborated by the authors.

4.2 Critical Success Factors

We compared the identified factors to those found in the literature review, in order to detect new critical success factors of PPPs, and classified them according to the categories proposed by Menezes et al. (2019). Box 9 shows the factors identified and we underlined the most important, which we found in most of the analyzed PPPs (three or more).

BOX 9 CRITICAL SUCCESS FACTORS

Critical Success Factor	PPP where it was identified	Authors that identified the factor	Category
<u>Technical quality studies</u>	Datacenter Jaguaribe Casa Paulista Hospital Metropolitan	Menezes et al. (2019) and others	Administrative
Appropriate time for designing a good project	Datacenter Jaguaribe	-	Administrative
<u>Project bankability/ availability of funding</u>	Datacenter Casa Paulista Hospital Metropolitan	Firmino (2018) and others	Economic
Appropriate regulation mark	Datacenter Jaguaribe Rodovia MG 050	Thamer and Lazzarini (2015) and others	Regulatory

Continue

Critical Success Factor	PPP where it was identified	Authors that identified the factor	Category
<u>Well-crafted contract</u>	Datacenter Jaguaribe Rodovia MG 050 Casa Paulista Hospital Metropolitan	Menezes et al. (2019) and others	Administrative
Use of alternative ways for conflict resolution	Datacenter Rodovia MG 050	-	Administrative
<u>Economic stability</u>	Datacenter Jaguaribe Casa Paulista Hospital Metropolitan	Menezes et al. (2019) and others	Economic
<u>Appropriate risk allocation</u>	Datacenter Jaguaribe Casa Paulista Hospital Metropolitan	Kyie and Chan (2015), Menezes et al. (2019)	Administrative
<u>Public sector's ability to operate with PPPs</u>	Datacenter Rodovia MG-050 Hospital Metropolitan	Kyie and Chan (2015), Reis and Cabral (2017), Cutrim et al. (2017), Menezes et al. (2019)	Administrative
Partners' culture regarding the PPP	Datacenter Rodovia MG-050	Cutrim et al. (2017), Menezes et al. (2019)	Cultural
<u>Contract inspection and monitoring</u>	Datacenter Jaguaribe Rodovia MG-050 Hospital Metropolitan	Kyie and Chan (2015)	Administrative
<u>Society's maturity to choose long term alternatives</u>	Datacenter Jaguaribe Rodovia MG-050	-	Political
Partners' experience with PPPs	Datacenter Casa Paulista	Cutrim et al. (2017)	Cultural
Competitive and transparent bidding process	Datacenter	Kyie and Chan (2015), Thamer and Lazzarini (2015), Reis and Cabral (2017)	Administrative
<u>Political will</u>	Datacenter Rodovia MG-050 Casa Paulista	Kyie and Chan (2015), Menezes et al. (2019)	Political

Continue

Critical Success Factor	PPP where it was identified	Authors that identified the factor	Category
Relationship between partners	Datacenter Rodovia MG-050 Casa Paulista Hospital Metropolitan	Cutrim et al. (2017)	Cultural
<u>Private partner's competence and expertise</u>	Jaguaribe Casa Paulista Hospital Metropolitan	Kyie and Chan (2015), Thamer and Lazzarini (2015)	Economic
Ideological resistance to PPP	Jaguaribe	Cutrim et al. (2017)	Political
Environmental regularization	Jaguaribe Rodovia MG-050	Kyie and Chan (2015), Cutrim et al. (2017), Menezes et al. (2019)	Environmental
<u>Land regularization</u>	Jaguaribe Rodovia MG-050 Casa Paulista	-	Economic
<u>Partners' financial capacity and use of the partnership as a financing instrument</u>	Datacenter Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan	Thamer and Lazzarini (2015)	Economic
<u>Government change</u>	Jaguaribe Casa Paulista Hospital Metropolitan	Cutrim et al. (2017)	Political
<u>PPP unit</u>	Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan	Kyie and Chan (2015), Cutrim et al. (2017), Thamer and Lazzarini (2015), Menezes et al. (2019)	Administrative
Compliance with the construction schedule	Rodovia MG-050	Reis and Cabral (2017)	Administrative
<u>PPPs' government plan</u>	Rodovia MG-050 Casa Paulista Hospital Metropolitan	Firmino (2018)	Political
<u>Guarantee to the private sector</u>	Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan	Kyie and Chan (2015), Menezes et al. (2019)	Economic
<u>Partners' good relationship with the Accounting Court</u>	Jaguaribe Casa Paulista Hospital Metropolitan	-	Cultural

Source: Elaborated by the authors.

As shown in Box 9, some factors identified confirm the results of other studies that analyzed PPPs in Brazil (Cutrim et al., 2017; Menezes et al., 2019; Reis & Cabral, 2017; Thamer & Lazzarini, 2015). On the other hand, we identified new factors, such as the appropriate time to prepare the project, the adoption of alternative means of conflict resolution, the maturity of society to choose long-term alternatives, land regularization, and the good relationship of the partners with the Accounting Court.

Furthermore, we observed that some factors are present in most PPPs, while others seem to be unique to a few of them. This is the case of compliance with the construction schedule, highlighted in the MG-050 PPP, due to works' delays. Another example is the ideological resistance to PPP, mentioned by E11, which stems from the fact that there is a line of thinking which values the State; thus, the idea of using PPPs would face resistance from "these statist government officials".

Next, we present some opinions on the relevance of the most recurrent factors, given their impact on PPPs.

BOX 10 RELEVANCE OF CRITICAL SUCCESS FACTORS FOR PPPS

Critical Success Factor	Interviewees' opinions
Technical quality studies	Modeling is important to make the market attractive (E2).
Appropriate regulation mark	Is important because of the 'legal certainty' issue (E12).
Well-crafted contract	Contributes to avoid contract gaps (E2), and must provide incentives for the private partner to achieve return "as the service is increasingly better provided"; that is, the "incentive mechanisms must be well aligned" so that there is convergence of objectives between the partners (E12).
Public sector's ability to operate with PPPs	The ability of the Granting Authority to manage PPP contracts is "the greatest difficulty there is today in all areas" (E2). This ability should comprise "not only the bodies directly involved in the partnership implementation, but also the various players involved in the PPP in the public area" (E4). In addition, the analytical capacity of government officials is essential for the preparation or analysis of studies that will subsidize the bidding, since "it is not sufficient to hire a consulting for modeling if, on the government side, there is not a team minimally competent on the subject" (E10).
Contract inspection and monitoring	If there is no such inspection, the expected results may not be achieved. Appropriate inspection can be done by using an independent checker, and by training government officials who are in charge of monitoring the contract (E8). In addition, "the public sector needs to have a qualified team to manage and inspect the contract" as well as "do it on a daily basis" (E16).

Continue

Critical Success Factor	Interviewees' opinions
Society's maturity to choose long-term alternatives	PPP is just one of the instruments that public management has for implementing public policies, and considering its long-term implications, "it is necessary for society to have clarity for deciding whether it wants to use such an instrument" (E3).
Political will	The public sector must be willing to sponsor and encourage this type of partnership (E4). Therefore, the "first thing for a PPP to be successful is the issue of political will" (E2).
Relationship between partners	Partners' focus should be on the partnership, that's why "the first word of PPP is partnership". Thus, they must understand the limitations of both parties and realize that they are on the same side. This mutual understanding is necessary because, in a long-term contract, situations may occur, not foreseen by the parties, which will require this type of behavior (E4). This relationship can be facilitated through appropriate communication and transparency of the information exchanged (E18).
Private partner's competence and expertise	This expertise favors "the work execution on time, the delivery of the contracted object, and the provision of the proposed service" (E9).
Land regularization	Land regularization is important for PPP's execution, since, in general, PPPs on infrastructure involve a "social part" that greatly influences the project (E9).
Partners' financial capacity	The private sector has investment capacity, which is critical for sectors such as sanitation, where "the State is no longer able to make large investments". This financial capacity also includes that of the public partner, which is necessary for the consideration's due payment (E11).
Government change	Rotation in the leadership of the Executive Branch may cause a change in the political orientation of the ruler who takes office, which reflects on PPP's execution through contractual changes (E11). This rotation causes changes in the team of the public partner that monitors PPP's execution. This is because "every four years the team changes, governance changes [...], so this is a difficulty because until the new team comes here [...] and understands the dynamics of a hospital" (E18).
PPP unit	This unit contributes to the good design of the PPP project, as it assists the management unit in economic and financial aspects, because, sometimes, "the management unit does not have the technical ability to do that" (E7).
PPPs' government plan	The implementation of a long-term contract requires the public partner to have "a strategy" and "a clear goal" (E17). In addition, PPP's implementation must be "matched with the government plan itself" (E10).
Guarantee to the private partner	Provides protection to the private partner, in case the public partner suspends the public consideration's payment (E19).
Partners' good relationship with the Accounting Court	A good interaction between these partners avoids interruptions in PPPs' execution, due to, for example, a precautionary measure adopted by the Accounting Court (E8).

Source: Elaborated by the authors.

4.3 Association between Critical Success Factors and Stakeholders

PPPs’ analysis identified associations between stakeholders and the most relevant (definitive) critical factors, as shown in Box 11. The examination of the collected data suggests that stakeholders qualify a critical factor as capable of facilitating or hindering the PPP. As interviewee 17 observes, stakeholders “make critical factors help or hamper partnership’s implementation”.

We grouped the actors that play the same role into a single category. This is the case of the ‘private partner’ category, which includes GBT S.A., BRK Ambiental, AB Nascentes das Gerais S.A., Canopus S.A., and Novo Metropolitanano S.A.

BOX 11 ASSOCIATIONS BETWEEN ACTORS AND THE MOST RELEVANT CRITICAL FACTORS

Stakeholder Critical Factors	Public Partner	Private Partner	CGPPPs	Head of Executive Power	SSA Hospital Metropolitano	Users	Local Residents
Political will	X		X	X			
PPP unit	X		X	X			
Financing availability		X		X			
Competence and expertise of the private partner		X			X		
Appropriate risk allocation	X	X	X				
Well-crafted contract	X	X	X		X	X	
Technical quality studies	X		X				
Contract monitoring and inspection	X		X			X	
Appropriate regulation mark				X			
Public sector’s ability to operate with PPPs	X		X				
Society’s maturity to choose long-term alternatives						X	X
PPPs government plan			X	X			
Partners’ financial capacity	X	X		X	X		
Government change	X			X			
Guarantees to the private partner	X	X		X			
Good relationship between partners	X	X			X		
Good relationship between partners and the Accounting Court	X	X			X		

Source: Elaborated by the authors.

We do not explain some associations because they were expected, due to the role played by the actors (in blue), or due to the factors' own nomenclature (in red). Thus, we sought to explain associations that we found in this research, shown in Box 12.

In addition, we included an actor, the Autonomous Social Service Hospital Metropolitan (SSAHM), given the peculiarity of that hospital's PPP. It is an actor distinct from the public partner (Health Department) and the private partner (Novo Metropolitan S.A). This actor is responsible for providing medical services (assistance) to hospital users, and it is up to the private partner to provide non-assistance services (cleaning, administrative management, etc.). The performance of this actor is ruled by a management contract signed with the Health Department.

Since it is a partner of that department, we assigned some factors associated with the private partner to this actor. Others were not associated, as, in its relationship with the Health Department, we did not identify any guarantees in the event of default of payment due to SSA. The "appropriate risk allocation" factor cannot be associated with SSAHM, since the management contract signed with the Belo Horizonte Health Department does not provide for a risk allocation. The factor "availability of financing" was also not associated with this actor, given that Law No. 10,754 (Lei nº 10.754, 19 de setembro de 2014), which authorizes its creation, does not include the possibility of obtaining bank financing as a source of revenue.

BOX 12 OPINIONS ON THE ASSOCIATIONS BETWEEN ACTORS AND CRITICAL FACTORS

Association	Opinions
PPP unit and public partner	This unit not only provides assistance regarding technical studies, but also helps the interaction of the public partner with other actors, such as the control bodies or investors interested in that project, as explained by E2.
PPP unit and CGPPP	The PPP Unit assists the aforementioned committee by acting as its Executive Secretariat (e.g., Federal Government), or by providing information on the PPP in discussion at the CGPPP, as is the case of the report prepared by the PPP Unit of the State of São Paulo.
PPP unit and Chief of Executive Branch	The association is due to the competence of the aforementioned actor to decide on the existence of the PPP Unit, since he defines the administrative structure of the Executive Branch.
Financing availability and Chief of Executive Branch	This actor defines the guidelines for financing granted by public banks. Thus, for example, the Federal Government and some state governments have banks that offer financing lines that can be used in PPPs. Hence, the Development Agency of the State of Bahia and Caixa Econômica Federal acted as funders for the PPP projects in that state (Cabral et al., 2016).

Continue

Association	Opinions
Appropriate risk allocation and CGPPP	The committee analyzes and approves the PPP contract where the said allocation is made.
Well-crafted contract and CGPPP	CGPPP decides on the referred contract.
Well-crafted contract and user	Users participate in the preparation of the contract through suggestions that can be added to the contract, presented in a public hearing.
Technical quality studies and CGPPP	It is up to CGPPP members, as is the case of the Ministry of the Economy, to make a report on guarantees and estimate the economic-financial impacts.
CGPPP and contract monitoring and inspection	This actor takes part in the contract monitoring and follow-up. This is the case of the Federal Government's CGPPP, as mentioned in Law No. 11.079 (Lei nº 11.079, de 30 de dezembro de 2004).
Users and contract monitoring and inspection	The Concessions Law, No. 8,987 (Lei nº 8.987, de 13 de fevereiro de 1995), which applies to PPPs secondarily, provides for inspection by users.
Government change and public partner	The referred change can lead to changes in the public partner's team involved with the PPP.
Appropriate regulation mark and Chief of Executive Branch	This actor can change the regulation mark on PPPs, by preparing a bill or a provisional presidential decree on the subject.
Partners' financing capacity and Chief of Executive Branch	This actor decides on budget allocation; therefore, on the resources for the public consideration.
Guarantee provision to private partner and Chief of Executive Branch	This actor can assist the public partner in offering such guarantees; for example, by creating a PPP insurance fund, as did the Governor of São Paulo, who created the Housing Insurance Fund.

Source: Elaborated by the authors.

The examples above show that the analysis of these associations is relevant, as it allows identifying the actors related to the critical success factors that can facilitate or hinder PPPs' implementation. Furthermore, this approach contributes to the Stakeholder Theory, since it highlights a new dimension to the analysis models of such actors. This is because the existing models, although allowing the identification of the most relevant actors, do not consider the critical factors associated with them. Thus, the inclusion of this new dimension would consider such factors as a mechanism of interference of an actor on public policies implemented through partnerships between the public and private sectors.

4.4 Determining Factors for the Partnership

Oliver (1990) argues that the determinants for making a partnership are need, asymmetry, reciprocity, efficiency, stability, and legitimacy.

The analysis of the cases allowed us to identify determining factors, which we classified according to the categories proposed by Oliver (1990), shown in Box 13. We highlighted (underlined> those that seem to be the more relevant, since they are present in most of the PPPs analyzed.

BOX 13 **SUMMARY OF THE DETERMINANTS FOR COOPERATION**

Determinants	PPPs	Category
Management optimization	Datacenter Jaguaribe	Efficiency
Non immediate immobilization of substantial financial resources	Datacenter	Efficiency
Implementation of priority projects for the public sector	Datacenter	Asymmetry
Lower impact on public accounts and lower cost	Jaguaribe Rodovia MG-050	Efficiency
<u>Fostering and improving service quality</u>	Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan	Efficiency
Reduced need for staff and public capital	Rodovia MG-050	Asymmetry
Synergies between construction and operation	Casa Paulista	Efficiency
Innovations brought by the private sector	Casa Paulista	Asymmetry
Increase the State capacity for implementing projects	Casa Paulista	Asymmetry
<u>Expertise and agility of the private partner in service provision</u>	Datacenter Jaguaribe Casa Paulista Hospital Metropolitan	Efficiency and Asymmetry
<u>Enhancement of risk allocation</u>	Datacenter Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan	Efficiency and Asymmetry
Allows government to dedicate to its end activity	Datacenter Hospital Metropolitan	Efficiency
Shorter time for project implementation	Rodovia MG-050 Hospital Metropolitan	Efficiency
<u>Access to financial resources necessary for infrastructure investments</u>	Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan	Asymmetry
<u>Profitability and revenue ensured for a long term</u>	Datacenter Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan	Stability

Source: Elaborated by the authors.

Next, we make some observations on the relevance of the most recurrent determinants.

BOX 14 MOST RECURRENT DETERMINANTS

Determinants	Observations
Fostering and improving service quality	Stems from the fact that, in the PPP, the compensation of the private partner is linked to its performance (Government of São Paulo, 2020). This aspect contributes to productivity increase, which is why we associated it with the efficiency category.
Expertise and agility of the private partner in service provision	Said expertise and agility are “decisive for work execution, delivery of the contracted object, and service provision within the agreed term”, as stated by E9. This agility stems from the fact that the private sector is more flexible for choosing and acquiring solutions, since it does not have to use rigid and time-consuming contracting procedures, as mentioned by E4. The reports indicate aspects associated with the productivity and access of the public partner to a resource that it does not have (private expertise); that is why this determinant was associated with efficiency and asymmetry.
Enhancement of risk allocation	This improvement refers, for example, to risk mitigation of the Datacenter building. The private partner was responsible for the construction and maintenance of the building, and has the incentive and expertise to do it properly, as public considerations will be paid according to its performance (Federal Government, 2015). Thus, the PPP allows transferring to the private partner the risks that it can manage better. Risk management by the private partner is a resource that the public partner does not have, so this determinant was associated with asymmetry. In addition, it can be associated with efficiency, since “if the private sector is more able to manage such risks, it will do it at a lower cost than the public authority”, as explained by E3.
Access to financial resources necessary for infrastructure investments	This determinant relates to public investments deficit, which occurs, for example, in Sanitation. As E11 explains, the public sector uses PPP to make such investments, because “it does not have available funds for investments”. The speech shows the access of the public partner to a resource that it does not have; thus, we associated this determinant with asymmetry.
Profitability and revenue ensured for a long time	PPP allows the private partner to ensure a certain revenue (public consideration and/or tariff paid by the user) over a period of up to 35 years. This revenue’s guarantee favors the achievement of profitability that is essential for the private partner, because, as E19 says, the private partner’s investment decision considers “the return on invested capital”. The arguments described above show that this motivation can relate to the stability category, as PPPs emerge from the need of organizations to establish and manage relationships, in order to achieve stability and predictability in their relationships with other organizations.

Source: Elaborated by the authors.

4.5 Value creation

This section contributes to the Stakeholder Theory, by providing elements that increase the understanding of stakeholders on the meaning of value (Harrison, Freeman, & Abreu, 2015). Since social value comprises benefits and costs (Quelin et al., 2017), we identified those that result from PPPs’ implementation, from the perspective of partners and other actors. As we argue in this paper, value is the result of actors’ perception on such elements of value.

An example of benefit is the speed of delivering the asset, with the consequent faster service provision to the population, mentioned by E9, who stressed that one of the benefits of the Jaguaribe PPP was “the speed of construction of the submarine outfall”. Another example is the use by the private partner of more flexible contracting procedures than those traditionally used by public administration, mentioned by E4.

On the other hand, PPP presents costs related to construction and operation, which are reimbursed by public consideration (administrative PPPs), or by the referred consideration plus the toll paid by users (sponsored PPPs). Box 15 summarizes these benefits and costs, with emphasis (underline) on the most important elements of value, which are present in most PPPs studied.

BOX 15 SUMMARY OF BENEFITS AND COSTS

Benefits	PPPs	Cost	PPPs
Decrease of public spending	Jaguaribe Hospital Metropolitan	<u>Project elaboration and contracting</u>	Datacenter Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan
Delivery of an active with the resulting faster service provision to the population	Datacenter Jaguaribe	<u>Construction and operation costs</u>	Datacenter Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan
The private partner can use more agile procedures for hiring than those traditionally used by public administration	Datacenter Jaguaribe	<u>Public consideration</u>	Datacenter Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan
<u>Quality service provision and improvement in equality and access to services</u>	Datacenter Jaguaribe Hospital Metropolitan	Toll tariff	Rodovia MG-050

Continue

Benefits	PPPs	Cost	PPPs
<u>Economic development of the region where the partnership is implemented</u>	Rodovia MG-050 Casa Paulista Hospital Metropolitan	<u>Administrative costs of local, state, and federal governments</u>	Datacenter Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan
<u>Increase of tax collection</u>	Datacenter Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan		
<u>Decrease of logistics and accident costs</u>	Rodovia MG-050		
<u>Environment enhancement</u>	Datacenter Jaguaribe Rodovia MG-050		
<u>Job creation</u>	Datacenter Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan		
Reduction of housing deficit, downtown revitalization, and proximity of the residence to the place of employment	Casa Paulista		
<u>Learning from PPP's execution</u>	Datacenter Casa Paulista		
<u>Expansion of the infrastructure object of the PPP</u>	Datacenter Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan		

Source: Elaborated by the authors.

Although evaluating PPPs' value for money was not the object of this research, the elements of value identified are convergent with papers that had this goal. Reis and Cabral (2017) state that PPPs generate value for money because they are faster to implement and have lower costs when compared to the traditional public provision modality. The shorter implementation term was also observed in another study with the same goal (Rodrigues & Zucco, 2018), where the authors concluded that PPPs had a shorter delivery time and a more predictable delivery.

Reis and Cabral (2017) further explain that PPP should be the option if the aforementioned value analysis shows the following advantages: reduced costs, shorter implementation time, better quality, and better risk allocation. These elements of value are described in Box 15, considering the decrease of public spending, a faster asset delivery, and a quality service provision. Improvement in risk allocation was also a determining factor. In addition, Box 15 shows other elements of value that should be considered in future analyses.

We also carried out a risk analysis. This examination is timely because risks can reduce benefits or increase costs. E2 says, “depending on risk-sharing, there will be significant costs”. Thus, the identification of risks can contribute to value analysis, which in general considers only benefits and costs (Quelin et al., 2017). Box 16 shows the identified risks.

BOX 16 SUMMARY OF RISKS

Stage	Risk	PPP
PPP elaboration	Public partner’s lack of capacity to structure a PPP	Datacenter
PPP elaboration	Fast execution of the structure at the expense of project quality	Datacenter Jaguaribe
Construction	Errors in projects or in work execution by the private partner	Datacenter Jaguaribe Rodovia MG-050 Casa Paulista
Construction	Delays or requirements from the bodies responsible for approving engineering projects or licenses needed during construction	Datacenter Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan
Construction	Non-adherence of the engineering project to government specifications	Jaguaribe
Construction	Project changes at partners’ request	Jaguaribe Rodovia MG-050 Hospital Metropolitan
Construction	Problems in the soil/subsoil where the venture will be constructed	Jaguaribe
Construction	Environmental liabilities or irregularities whose triggering event emerged after signing the ownership transfer term of the areas made available by the public partner	Casa Paulista
Construction and Operation	Climate or meteorological phenomena that may hinder the construction and operation	Datacenter

Continue

Stage	Risk	PPP
Construction and Operation	Destruction, robbery, theft, or loss of property to use in construction and operation	Datacenter Jaguaribe Rodovia MG-050 Hospital Metropolitan
Construction and Operation	Strike of private partner's workers and suppliers	Datacenter Jaguaribe Casa Paulista Hospital Metropolitan
Construction and Operation	Changes in legislation that affect the construction or operation costs	Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan
Construction and Operation	Increase of the concessionaire's capital and operational costs, and other financial problems of the private partner	Datacenter Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan
Construction and Operation	Fortuitous events and <i>force majeure</i> that may be covered by insurance offered in Brazil	Datacenter Jaguaribe Rodovia MG-050 Casa Paulista Hospital Metropolitan
Construction and Operation	Negligence or recklessness of employees of the concessionaire itself or of outsourced companies	Datacenter Casa Paulista
Construction and Operation	Errors in the private partner's proposal	Datacenter Casa Paulista Hospital Metropolitan
Construction and Operation	Non-compliance with the construction schedule	Rodovia MG-050 Casa Paulista
Construction and Operation	Fiscal risk	Jaguaribe Casa Paulista Hospital Metropolitan
Construction and Operation	Failure in getting funds from the private partner	Jaguaribe Casa Paulista
Construction and Operation	Inappropriate inspection	Jaguaribe
Operation	Loss with service provision to a third party	Datacenter Jaguaribe Rodovia MG-050 Casa Paulista
Operation	Risk of demand for the service object of PPP	Rodovia MG-050

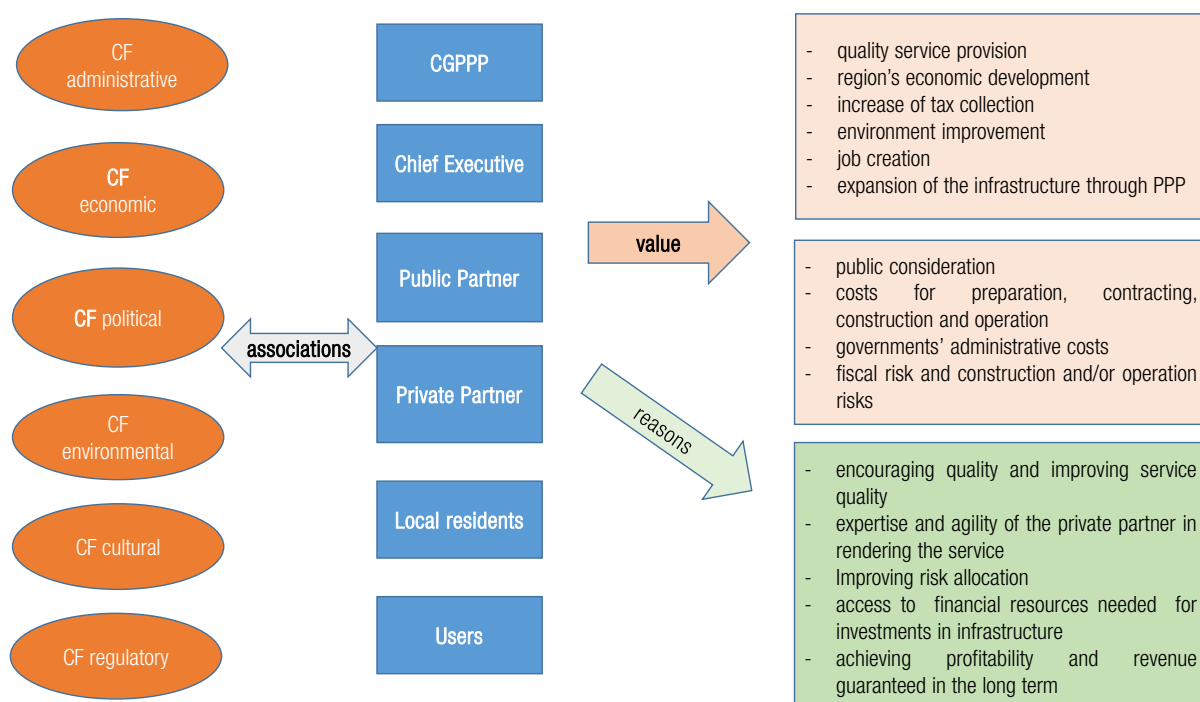
Source: Elaborated by the authors.

Some of the risks described in Box 16 confirm those found in other studies that analyzed PPPs in Brazil (Lima & Coelho, 2015). These are demand, *force majeure* and fortuitous events, climate phenomena, and construction delays or failures, as well as changes in the project at partners' request, increase in costs resulting from changes in tax legislation or cost of capital, fiscal risk, and failure to obtain financing. On the other hand, we identified new risks, such as structuring the PPP project quickly at the expense of quality, non-compliance with the construction schedule, change of government, and inappropriate inspection.

The results are shown in the proposed model of stakeholder analysis (Figure 2). Due to limited space, we decided to prioritize the definitive actors, who were the object of associations with critical success factors, as well as mentioning those factors through their categories. In the case of the elements of value and determinants, we mentioned only the most recurrent, emphasized in previous tables.

In addition, considering that the value analysis must include benefits and costs (Quelin et al., 2017), Box 15 shows the benefits and costs, and Box 16 shows the risks of construction and operation that may affect such costs. Thus, the analysis model provides information that advances knowledge on the meaning of value for PPPs' stakeholders (Cabral, Mahoney, McGahan, & Potoski, 2019).

FIGURE 2 APPLICATION OF THE PROPOSED ANALYSIS MODEL



Source: Elaborated by the authors.

5. FINAL REMARKS

This research aimed to identify stakeholders, critical success factors, determinants of cooperation, and value creation in PPPs. Thus, we identified the most relevant actors, which were classified according to their role in the implementation of the partnership (R. C. Gomes et al., 2010), their willingness to cooperate or threaten (Savage et al., 1991), and their degree of relevance (Mitchell et al., 1997).

Furthermore, we identified factors that facilitate or hinder partnership implementation and the actors associated with it. Regarding the determinants of cooperation between the partners, although they are distinct, there seems to be a relative predominance of the determinant 'efficiency', which is convergent with the fact that the reason for making PPPs stems from a potential cost reduction (Thamer & Lazzarini, 2015), and higher efficiency and quality in the provision of public assets and services (Reis & Cabral, 2017).

Regarding value creation, we identified benefits, costs, and risks, thus contributing for advancing scientific knowledge on the subject, in view of a gap in the literature on how public organizations interact with private companies to create value (Cabral et al., 2019).

The research also suggests future studies. To this end, we recommend that critical success factors should be an analytical dimension in the models that identify stakeholders in interorganizational partnerships. These factors, which can facilitate or hamper partnerships, relate to these actors' performance, and can be mechanisms of interference in public policies or government programs implemented through PPPs.

Another research suggestion regards the dialogue between the Stakeholder Theory and the body of knowledge on value creation, which seems to be the state of the art of that theory (Freeman et al., 2020). We recommend that future studies not only analyze the meaning of value for different actors, which we did, but also evaluate the distribution of this value among such actors in PPPs (Cabral et al., 2019). In addition, it is necessary to propose improvements in the methods for measuring value (Brito & Fazoli, 2019).

In addition, we consider that the analysis of actors' influence on government decision-making is part of the current research agenda on stakeholders (R. C. Gomes et al., 2020); that PPPs have been used by governments (Villani et al., 2017); and that there is still no appropriate understanding of how public and private organizations interact to create value (Cabral et al., 2019). Therefore, we suggest using the analysis model and other proposals made in this paper, in order to fill the literature gap.

This research has limitations, since we did not interview relevant stakeholders, such as users. For this reason, we suggest the inclusion of these actors in the group of interviewees for future analyses, and of a larger number of PPPs, from different government levels (federal, state, local).

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