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Shaping influence in governance networks: The role of motivations and information exchange

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Abstract

In governance networks, some actors might have more influence than others in the group's collective decisionmaking. This paper investigates whether an actor's prosocial and/or self-interested motivations to participate in a governance network help predict its level of influence in the group. We argue that information exchange is an important mediator in this relationship because an actor's tendency to actively diffuse information will depend on its motivations; while other participants being exposed to information from an actor are likely to increase the actor's influence on them. Using a unique relational dataset from 10 anti-corruption multi-stakeholder partnerships (MSPs) in Latin America, Africa and Eurasia, we find that self-interested actors, rather than prosocially motivated ones, take the lead in information-exchange activities. The data also shows how this central role in turn increases perceived influence of self-interested actors among other participants, conditioning potentially the direction of agreed-upon collective objectives.

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1 | INTRODUCTION

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To achieve solutions across conflicting policy arenas, decisions are increasingly made within governance networks. These are collaborative forums that build solutions based on knowledge, consensus, and legitimacy from multiple actors. These actors are brought together for collective negotiation and deliberation (Bache, 2000; Huxham & Vangen, 2004). They harness the strengths and interests of the public and non-public sectors, formalizing spaces for cross-sectoral collaboration, information exchange and decision-making (Ansell & Gash, 2008).

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However, actors operating within governance networks often find it challenging to motivate other actors to share information and solve problems collectively. It requires time, energy, and knowledge that must be shared strategically and patiently (Fischer & Maag, 2022). Actors predefine their motivations based on the opportunity costs to participate in these networks (Fischer & Leifeld, 2015), and whether they believe their contributions will be rewarded or not (Davenport & Prusak, 1998; Fischer & Leifeld, 2015; Steets, 2010). Participatory motivations in networks can be roughly subdivided between extrinsically self-interested motivations (i.e., improving one's reputation, profit maximization, etc.) and intrinsically prosocial motivations (i.e., philanthropy, altruism, etc.) (Le Grand, 2003; Ryan & Deci, 2000).

This study identifies an unresolved tension in governance-network partners, fueled by these two seemingly contradictory rationales about participatory motivations. We argue that studying these types of motivations is critical to unveil how actors not only structure relationships within governance networks, but also how they shape perceptions about influence. Although networks are purposefully designed to flatten differences between participants, they may also be subject to "hidden" organizational dynamics that lead some actors to become more influential than others, conditioning the direction of the group's decision-making process (Bryson, 2004; Faul, 2016; Gronow et al., 2020).

In the public administration field, prior studies have investigated the impact of actors' motivations on organizational outcomes (Besley & Ghatak, 2018; Esteve & Schuster, 2019). These studies, however, have failed to explain how motivations shape influence within groups. There has been no systematic examination of why actors consider other actors as influential through the lenses of participatory motivations. This paper explores and integrates both analytical perspectives, considering participatory motivation an important, yet unexplored, element to explain influence in governance networks.

We address this tension in 10 multi-stakeholder partnerships (MSPs) tasked with implementing anticorruption governance mechanisms in the public-infrastructure sector of 10 countries from Latin America, Africa, and Eurasia. MSPs offer a real-world example of complex governance systems, managed collaboratively by diverse organizational stakeholders (Hermans et al., 2017). Some MSP actors are driven by an altruistic desire to defend or speak out for infrastructure-vulnerable communities and to protect the quality of public services, while others seek business and reputational opportunities (Richter, 2001; Steets, 2010). For MSPs concerned with transparency and accountability, participatory motivations are critical for understanding asymmetries that can derail collaborative efforts (Brockmyer & Fox, 2015; Truex & Søreide, 2011).

The present study investigates whether prosocial or self-interested motivations augment asymmetries of influence. Relational data was analyzed via path analysis, revealing that information in governance networks is generally exchanged by self-interested rather than prosocial actors. We conclude that self-interested stakeholders might employ this mechanism to gain group exposure among others and build influence, expanding their capacity to determine or change agendas beyond agreed-upon objectives.

By focusing on the understudied field of motivations, this paper expands our understanding of why actors participate in collaborative efforts, which, in turn, is crucial for understanding how networks, polycentric and collaborative governance systems operate in practice (Fischer & Maag, 2022). Our findings can help practitioners and conveners of networks to recognize factors that undermine collective action, as well as help to design reward mechanisms that satisfy partners' more private objectives while enabling them to contribute to collective goals.

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2 | LITERATURE AND THEORY 2.1 | Governance networks: An overview

We are in the age of the "network society" (Castells, 2022, p. 2). In today's public affairs, governments no longer delegate power to a single agency to solve a problem or provide a public service. Instead, there is a pervasive trend in which public, private and non-profit organizations are called upon to come together in increasingly collaborative ways, to solve challenges across policy areas, leveraging experience and knowledge from multiple participants (Kilduff & Tsai, 2003; Provan et al., 2007). This is often assumed to be a straightforward way "to get things done" (Imperial, 2004, p. 13), where solutions are available to tap into by bringing the right actors around the table for negotiation and deliberation (Huxham & Vangen, 2004).

These alliances take the form of *networks* (Klijn & Skelcher, 2007). They are integrated groups of cross-sectoral actors that work together to provide public goods, services, and/or value when single public sector agencies are unable to produce them (i.e., government failure) or when private sector firms are unable or unwilling to provide them in the desired quantities (i.e., market failure) (Isett et al., 2011; Schäferhoff et al., 2009; Turrini et al., 2010).

Networks must be differentiated from multiple types of network-based platforms that are often used interchangeably in the literature (Kapucu, 2015; Lecy et al., 2014). In *policy networks*, a set of stakeholders have a common interest in public decisions, especially those about public resource allocation (Isett et al., 2011). *Cooperative networks* focus exclusively on information exchange among stakeholders, while in *coordination networks* actors align their policies/practices to achieve results that are beneficial to everyone in a determined policy arena. *Collaborative networks* focus on the production of goods and services by a set of interdependent organizational stakeholders (Lecy et al., 2014).

The term governance in *governance networks* refers to the replacement of hierarchical bureaucratic structures with more integrated and horizontal organizational arrangements (Kapucu, 2015). Governance networks fuse collaborative public goods and service provision with collective policymaking and information sharing (Isett et al., 2011), combining most of the characteristics of the different networks described above. Governance networks are the main focus of this paper, and they represent one of the highest levels of integration among multiple stakeholder actors (Lecy et al., 2014).

Scholars, policymakers, and practitioners broadly agree that governance networks bring positive benefits. By integrating actors into voluntary, nonhierarchical structures, they create forums for inclusiveness, flexibility, and innovation for policy solutions and the delivery of public goods (Emerson et al., 2011; Googins & Rochlin, 2000). Such networks showcase the diverse interests, needs, and objectives of different stakeholders; their critical interdependencies; and the importance of concerted action (Hermans et al., 2017).

Contrary to the expectations of networks and their distinctive benevolent main objective to solve societal problems, actors may also have different incentives to advance private interests. That is, actors may form strategic relationships with others, gain structural advantages, and/or exert control through objective/subjective authority attributes, such as influence (Smith et al., 2014).

2.2 | Influence

Disputes of influence and control over resources and outcomes are ubiquitous in organizations, political parties and partnerships (Bunderson & Reagans, 2011; Smith et al., 2014). Influence is one of the most fundamental but also most controversial concepts in public administration research as it infers the act of exerting control on actors or policy decisions (Dahl, 1961; Henry, 2011).

Influence is generally understood as the perceived importance of actors involved in group dynamics when evaluated by their peers (De Klepper et al., 2017; Ingold & Leifeld, 2014). As an inherently subjective authority attribute that is based on the mutual evaluation among political actors (Fischer & Sciarini, 2015), influence is a competenceWILEY- pa public

based status differentiator (De Klepper et al., 2017). It is socially constructed and consolidated by group perceptions (Bustos, 2021). Thus, actors involved in a decision-making process within groups have the most accurate view of how influence is allocated among other participants (Fischer & Sciarini, 2015).

For a long time, influence has been linked with reputation and power in the literature of political science and political sociology (Dahl, 1961; Emerson, 1962). Several studies have used reputational power in policy analysis to disentangle sources of influence in organizations (Fernandez & Gould, 1994; Henry, 2011). The political elite stream of research, for example, has explored theoretical approaches to explain influence differentials (Parry, 2005). These studies posit that influence can be explained as the result of an actor's reputation, formal authority, and structural position in an organization (Hunter, 1953; Mills, 1956; Parry, 2005). Although the present study considers the merits of each of these approaches, we argue that they fail to recognize an underlying, more endogenous, determinant of influence, which is manifested in the direction of actors' actions (De Klepper et al., 2017; Ingold & Leifeld, 2014).

Actors' motivations determine the intention and direction of actions within collective decision-making processes (Brandenberger et al., 2020). Motivations can impact perceptions of others, increasing or diminishing not only perceived influence, but also the number of allies or adversaries an actor holds. Although several authors have put forward theoretical arguments as to why participatory goals that actors hold can impact their behavior within such networks (Ansell & Gash, 2008; Fischer & Sciarini, 2015; Lecy et al., 2014), only few studies have examined their importance empirically. The present study posits that an actor's participatory motivations can also complement the existing literature on influence disparities.

2.3 | Motivations

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Motivation comes from *movere* in Latin. To be motivated is to be moved to do something (Ryan & Deci, 2000). Motivation explains a psychological process that leads actors to behave in a particular way, depending on incentives and contexts (Esteve & Schuster, 2019). When it comes to organizational settings, motivations are often seen as the "degree to which an individual wants and tries hard to do well at a particular task" (Mitchell, 1982, p. 81). However, as a multidimensional concept (Esteve & Schuster, 2019), motivation can not only be conceptualized by an actor's intensity or persistence in doing something in a work setting, but also by the intentions of that action.

According to self-determination theory (Ryan & Deci, 2000), motivations can be subdivided into two camps that determine the direction of actions. Ryan and Deci (2000) posit that *intrinsic motivation* can be defined as "doing of an activity for its inherent satisfactions rather than for some separable [private] consequences" (p. 55). On the other hand, *extrinsic motivation* refers to an activity that "is done in order to attain some separable [private] outcome" (Ryan & Deci, 2000, p. 60). These types of motivators are, of course, not mutually exclusive. They are likely to lie on a continuum, rather than representing a dichotomy (Esteve & Schuster, 2019).

Much of the context of an actor's situation will determine whether an actor is driven by intrinsic motivations, by extrinsic motivations, or by both. However, we do believe that motivations can be roughly separated and studied through the lens of this basic differentiation, which echoes recent investigations about actors' participatory benefits in networks.¹

Studies of networks emphasize that the role of participation in such forums is the creation of shared value and public goods (Steets, 2010). The *raison d'être* of governance networks is to contribute to finding substantive solutions to complex societal challenges collectively (Selsky & Parker, 2005). Hence, we could expect that actors would—at least to some extent—join governance networks because they genuinely want to contribute to finding collective solutions to tackle social problems at hand, reduce sectoral conflict, and provide benefits to the largest number of stakeholders (Fischer & Leifeld, 2015). This intrinsic motivation would be referred to as "prosocial" by social psychologists (Grant, 2008) because it creates value, independent of individual short-term goals.

Actors are then motivated to help others for no private rewards and may engage in collaborative activities to the possible detriment of their own interests (see also Le Grand, 2003). Prosocially motivated actors will direct

efforts toward societal goals, which are the main assumption for governance networks to exist in the first place (Isett et al., 2011; Lecy et al., 2014). This rather normative assumption is also emphasized by the literature on collaborative institutions, collaborative governance, and collective action institutions (Ansell & Gash, 2008; Lubell et al., 2010).

The prosocial perspective has been criticized, nonetheless. Networks as collaborative platforms fall outside their partners' norms, professional roles, and communities of practice (Carlile, 2004; Imperial, 2004). Actors work together aiming for the creation of collaborative advantage (Huxham & Vangen, 2004), while also trying to accomplish their more private objectives, and maintain their influence and institutional identities (Bryson, 2004; Fischer & Leifeld, 2015). According to rational choice theory, these "self-interested" motivations seek to maximize private gains (Esteve & Schuster, 2019). Rewards may comprise benefits such as wealth, agenda-setting power, reputation, or even personal development (Le Grand, 2003). By these means, actors may participate in networks because they want to lobby for their preferred solution and achieve rewards independently of the objectives of the collective (Fischer & Leifeld, 2015).²

Practitioners and conveners of governance networks often underestimate the importance of actors' motivations to participate in them (Fischer & Leifeld, 2015). Although networks are formally designed to reduce inequalities, actors' self-interested motivations may create asymmetrical relational structures that undermine normative discourses of equal partnering and participation (Faul, 2016). Studies have shown that self-interested actors are willing to exchange their time and resources as long as they can obtain a network output close to their expected goal (Faul, 2016; Fischer & Leifeld, 2015). Given that self-interested motivations are likely to depart from the original goals of governance networks, it is expected that self-interested actors would be less willing to collaborate and more likely to limit participation, thereby reducing their influence (Doh & Teegen, 2002; Kell, 2003).

Actors' conflicting motivational preferences may affect not only their behavior within the network, but also the extent to which they can shape influence in others. It is because of the benefits that governance networks offer that actors are able to define their participatory prosocial and self-interested motivations, leading to a collective rationality of "hidden" dynamics for network existence (Fischer & Leifeld, 2015).

Given these conflicting accounts, we hypothesize that prosocial actors are more likely to be perceived as more influential than less prosocial actors since their altruistic goals are intrinsic to the formation and objectives of governance networks. The opposite effect is expected when considering self-interested motivations. We split both types of motivations into two hypotheses, because doing so provides better analytical purchase on the effect of existing asymmetries of influence and reflects the fact that both types of motivations are not mutually exclusive:

Hypothesis 1a. Actors motivated to participate in governance networks for prosocial reasons are more likely to be perceived as influential by other actors in their networks.

Hypothesis 1b. Actors motivated to participate in governance networks for self-interested reasons are less likely to be perceived as influential by other actors in their networks.

2.4 | Information exchange

According to Weber and Khademian (2008), networks cannot work effectively unless they collectively integrate diverse sources of information and knowledge. Emerson et al. argue that knowledge and information-sharing are the "currency of collaboration" (2011, p. 16). Without that input, governance-network participants cannot fully understand other network actors' goals, strategies, or reasons for cooperating. Thus, reducing this level of uncertainty benefits all participant actors (Berardo & Lubell, 2016; Roloff, 2008). Circulating more information in networks reduces transaction costs of collaboration, helping actors to identify and negotiate mutually beneficial solutions (Brandenberger et al., 2020; Leifeld & Schneider, 2012). However, not all actors feel comfortable exchanging information (Schrank & Whitford, 2011). Actors are more likely to participate in collective action if they believe it will generate benefits for them (Mulema & Mazur, 2016). Groups of actors may withdraw from collective processes and limit their interactions with others if participation seems likely to produce more costs than benefits (Feiock, 2013). We, therefore, hypothesize that more self-centered actors are less likely to exchange information with others within governance networks, while at the same time, actors who hold more prosocial motivations will be more likely to share information (Faul, 2016; Leifeld & Schneider, 2012):

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Hypothesis 2a. Actors motivated to participate in governance networks for prosocial reasons are more likely to share information with others in their networks.

Hypothesis 2b. Actors motivated to participate in governance networks for self-interested reasons are less likely to share information with others in their networks.

Whether governance networks consist of individuals, groups, or organizations, it is important to know which actors exert the most influence. Since being influential is, in part, a structural phenomenon, each actor's influence must be considered within a wider web of relationships (Greening & Gray, 1994). From a network perspective, the direct and indirect connections actors acquired from being embedded within such a network can bring with them a certain level of perceived influence (Ingold & Leifeld, 2014). From this perspective, influence serves as dyadic attribution (Ingold & Leifeld, 2014). That is, besides being the result of actors' attributes (i.e., wealth, job position, charisma, etc.), influence can also be gained from sending and receiving valuable resources, such as information, ideas or knowledge within a network.

Brass has noted the importance of "being in the right place" (1984, p. 518), a concept he developed by exploring how actors build networks and position themselves within structures that offer benefits, such as influence and popularity. Once established, information-exchange relationships become sources of influence (Rethemeyer & Hatmaker, 2008; Smith et al., 2014), which serve an instrumental role, while substantiating status (Sabatier, 1978; Weiss, 1986). Actors who proactively exchange information tend to acquire higher social standing (Bunderson & Reagans, 2011) and social differentiation, a crucial antecedent variable to assess perceived influence within groups (Bustos, 2021; Leifeld & Schneider, 2012; Smith et al., 2014). Based on this rationale, we propose:

Hypothesis 3. The more information an actor sends to others, the more likely he/she is perceived as influential in governance networks.

A mediation model underpins our analysis of these hypotheses. Motivations (whether prosocial or selfinterested) may affect perceived influence with or without the mediation of an intervening variable we put forward: information exchange (Figure 1).



FIGURE 1 Conceptual model of the hypothesized process. The independent variable *X* represents two separate variables that are further evaluated in different models. *Source*: Authors' elaboration.

Following standard reporting within the analytical framework of mediation path analysis (Hayes, 2018), the model proposes that the independent variable (motivations, X) will impact the dependent variable (perceived influence, Y). This impact can go in one of two ways. In Figure 1, the pathway that leads from X (motivation) to Y (perceived influence) without passing through M (information exchange) is called the *direct effect* of X on Y (and this is commonly referred to as (c')). The second pathway from X (motivation) to Y (perceived influence) through M (information sharing) is the *indirect effect* (with the effect of X on M being denoted as (a), and the effect of M on Y denoted as (b)).

3 | RESEARCH SETTING

This study investigates multi-stakeholder partnerships (MSPs), which implement anti-corruption mechanisms in the public-infrastructure sector. The MSPs in this study are tasked with implementing the global Infrastructure Transparency Initiative (CoST), which combines features of a consultancy agency and an accountability-based non-governmental organization (Truex & Søreide, 2011). Its main objective is to disclose relevant information about public infrastructure projects in different countries, while independently assessing whether those projects deliver value for public money.³ Of the 20-plus countries implementing CoST, 10 are included in the study sample.⁴

Along with CoST, other well-established transparency initiatives, including The Extractive Industries Transparency Initiative (EITI), The Open Government Partnership (OGP), and The Global Initiative for Fiscal Transparency (GIFT) (Brockmyer & Fox, 2015), rely on formal and independent multi-stakeholder partnerships for the implementation of anti-corruption mechanisms (Fraser & Carbonnier, 2022). Some of the findings of this study are likely to be generalizable to the above global transparency initiatives, considering the operational and organizational structure similarities to those of the MSPs in our sample.

3.1 | Data collection

A unique dataset was collected through an online survey designed to reflect the relational data-collection literature on organizational networks (Agneessens & Labianca, 2022; Borgatti et al., 2022). Our survey included 15 items and was translated into five languages. We collaborated closely with the CoST International Secretariat, which endorsed the distribution of the survey in several CoST-implementing countries during the second quarter of 2020.

The survey was built and distributed using Qualtrics (Qualtrics, Provo, UT). We followed a calendarized protocol by sending invitations, survey distributions, and reminders to the private email addresses of members of the MSPs. We identified and included relevant stakeholder organizations in the sample (see Appendix A), considering network-boundary specification guidelines (Berardo et al., 2020), and confirming the participation in the survey of all stakeholders who were active in the MSPs during 2019 and 2020.⁵ The Research Ethics Committee of the main author's university approved the study's data collection process, ensuring confidentiality for participants.

Participants were briefed on the survey's purpose and voluntary nature. Most participants completed the survey in a single 20-min session. Additional invitations were sent to participants who did not respond during the first round of survey distributions, and half-completed surveys were followed up by telephone to gather as much complete data as possible. We removed two half-completed surveys, ensuring that all data were drawn from completed questionnaires.

The survey recorded responses from the MSPs located in Latin America (El Salvador, Costa Rica, Guatemala, Panama, and Honduras), Africa (Ethiopia, Malawi and Ghana) and Eurasia (Ukraine and Afghanistan). These are all partnerships in developing countries with low-to-medium Human Development Index (HDI) scores and relatively new democracies in the global south (UNDP, 2019).

The global response rate for the 10 MSPs was 93%; at the country level, response rates surpassed the 80% threshold. Table 1 shows the composition of the 10 MSPs in the sample, including year of partnership foundation, number of respondents per country, organizations they represent, and sector affiliations.

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Country	Response	Respondents	Orgs	PubS	PriS	CS	Aca	Med	Obs	NS	AT
El Salvador (2018)	100%	13	10	2	2	2	2	0	0	1	1
Costa Rica (2017)	93%	27	13	3	2	2	0	0	4	1	1
Guatemala (2010)	92%	24	13	3	2	4	0	0	2	1	1
Panama (2019)	100%	17	12	5	2	3	0	0	1	1	0
Honduras (2014)	81%	25	11	3	3	3	0	0	0	1	1
Malawi (2009)	88%	15	15	4	2	4	0	1	2	1	1
Ghana (2019)	92%	12	9	1	3	2	0	1	0	1	1
Ethiopia (2009)	100%	14	10	3	3	2	0	0	0	1	1
Ukraine (2015)	88%	14	11	1	3	5	0	0	0	1	1
Afghanistan (2017)	94%	16	12	3	3	4	0	0	0	1	1
Total ^a	93%	177	116	28	25	31	2	2	9	10	9

TABLE 1 Composition of MSPs.

Note: Year of MSP establishment in between brackets.

Abbreviations: Aca, academia; AT, Assurance Teams; CS, civil society; Med, media; NS, national secretariats; Obs, observer organization; PubS, public sector; PriS, private sector.

^aTotal survey participants and organizations by country as of 2020.

Across all cases, the largest sectoral representation came from civil society organizations (31), followed by public-sector (28) and private-sector (25) entities. The smallest representation comprised academic institutions, media outlets, and observer organizations (i.e., the World Bank, British embassies, and the Inter-American Development Bank (IDB)). Apart from Panama, due to its recent formation shortly before the data-collection period, every MSP in the sample had an administrative National Secretariat and a technical Assurance Team.⁶

The research setting for this study featured a diverse range of actors and sectoral representation. Most importantly, the boundaries of network participants were clearly defined, with no important actors left out from the partnerships in the sample. This provides an acceptable degree of internal validity for the use of network analysis techniques and to derive this study's variables of analysis (Berardo et al., 2020), which we explain in the following section.

4 | OPERATIONALIZATION

4.1 | Aggregated responses

The present study aggregates data at the organizational level. Individual survey responses were aggregated to obtain a single organizational response. Organization A is linked to Organization B if at least one survey respondent affiliated with Organization A names Organization B as a communication partner (an established practice in organizational and governance-network studies) (Agneessens & Labianca, 2022; Borgatti et al., 2022). Social network analysis techniques are used to achieve the objectives of this study, and this aggregation procedure facilitates such analysis (Kapucu, 2015).

4.2 | Network data

A social-network approach is used to operationalize the mediating variable (M, information exchange) and the dependent variable (Y, perceived influence). This method explains the relational preferences of actors empirically, establishing information-exchange relationships from an interpersonal and structural perspective (Borgatti et al., 2022).

An information-exchange-network question is used to operationalize the mediating variable. Respondents were asked to:

"Consider all your email, and telephone interactions last year (January–December 2019) and face-to-face meetings with members of your multi-stakeholder group. In these interactions, how often did you provide information on public-infrastructure-related matters to people representing the following organizations and/or internal bodies that develop the work of the initiative, including the National Secretariat and Assurance Team?"⁷

Respondents used a network checklist to identify organizations participating in their MSPs, indicating those with whom they had relationships. This *roster* of names reduced recall errors from the respondents (Borgatti et al., 2022), and responses created a reliable network structure for each organization's neighborhood of information-exchange collaborators.

Responses to the information-exchange network question were collected using a 4-point Likert scale, which provides the strength of the information-exchange relationships (Agneessens & Labianca, 2022; Borgatti et al., 2022). To simulate networks and interpret network measures, we dichotomized these ties, disregarding their varying levels of intensity. This turned naturally valued ties into binary ones (present = 1/absent = 0) (Borgatti & Quintane, 2018). To operationalize information exchange as the mediator variable (*M*), we counted the ties that every organization (A) sent to others (i.e., the outdegree obtained by summing the outgoing ties, A - > B). Descriptive information about this network is available in the second column of Table 2. To operationalize perceived influence (Y) as the dependent variable, we collected data using a second network question:

"Consider situations last year (January–December 2019) when you participated (with or without the right to vote) in initiative-implementation decisions. How often were you influenced by the information or arguments of people representing the following organizations and/or internal bodies that develop work for the initiative, including the National Secretariat and Assurance Team?"⁸

This is a straightforward and impersonal way to operationalize influence, because third-actor perceptions are more accurate than self-perceptions about influence and reputation (Ingold & Leifeld, 2014). The design and structure of this question condenses theoretical conceptualizations linked to perceptions of influence in organizational settings that were discussed in the Literature and Theory section of this paper.

Responses were ranked using a Likert scale. The influence network was also dichotomized (1 = the present tie; 0 = no ties), disregarding their varying intensities. These data allowed us to build a binary, directed network matrix with the row organization indicating what column organization is perceived as influential. We counted all influence nominations every organization (A) received from survey respondents (i.e., the indegree obtained by summing the incoming ties, A < -B). The more influence nominations an organization received, the stronger its assumed capacity to exert influence within an MSP (Ingold & Leifeld, 2014). See the third column of Table 2 for descriptive information on this network.

By focusing on the incoming ties for the perceived influence while focusing on the outdegree for the information-exchange network, we also avoided common-source bias (Meier & O'Toole, 2013).

Descriptive	Information network	Influence network
No. of organizations	116	116
Total no. of ties	833	933
No. of senders	97	102
No. of receivers	116	116
Network density	0.06	0.07

TABLE 2 Descriptive information of networks.

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4.3 | Motivations: Independent variable

The goals of most governance networks are based on the public good they are attempting to deliver (Huxham & Vangen, 1996; Steets, 2010). To operationalize motivations as our main independent variable (X), we first selected four recurrent prosocial motivations in the partnership literature. We adapted these to the public-infrastructure sector. Respondents were asked to rate how much the following statements reflect their motivation to participate in an MSP⁹: (1) "to contribute to the public debate about public infrastructure projects" (Truex & Søreide, 2011); (2) "to enhance government transparency" (Brockmyer & Fox, 2015); (3) "to co-produce public policies to tackle corruption" (Rich & Moberg, 2015); and (4) "to improve value for money in public-infrastructure projects" (Brockmyer & Fox, 2015). Second, we also inquired about their opinions on common self-interested motivations for partnership participation: (1) "to engage with key public and private stakeholders" (Millar et al., 2004); (2) "to obtain reputational benefits" (Alsop, 2004); and (3) "to secure sources of funding for my home organization" (Richter, 2001).

Responses were rated using a Likert scale. To ensure one-dimensionality for each construct, an exploratory factorial analysis was carried out. The loading for two items of the prosocial motivations was below 0.50 (Hair et al., 2014). Removing the first and fourth items in the prosocial construct produced an acceptable validity score. We obtained an adequate Cronbach's alpha >0.70 for each construct of motivations.

4.4 | Controls

We considered three control variables for the model. *Job position* captures each respondent's job position in their home organizations, with the actor's formal authority based on his/her position within an organizational organigram. The job positions included in the survey were (6) executive director, (5) higher management, (4) intermediate management, (3) operative level, (2) junior, and (1) organizational representative.

Professional knowledge was the second control variable in the analysis. Respondents were asked how much they have contributed to various collective processes of the MSPs. The multiple options to select from were: (1) "selecting indicators to evaluate infrastructure projects"; (2) "determining how to communicate results to the public"; (3) "selecting infrastructure projects for assurance reports"; (4) "advising on annual-report preparations"; (5) "interpreting technical findings for infrastructure projects"; and (6) "following up recommendations."

The third control variable, *years of participation*, measured the role of seniority of respondents in their respective MSPs. This variable was included to assess whether the effects of motivations on perceived influence remained significant when controlling for seniority.

5 | METHODS

To test the path model illustrated in Figure 1, we performed a mediation analysis. Mediation analysis is a statistical method that uses ordinary least squares regression to test whether an independent variable (X) has an effect on a dependent variable (Y) and whether this happens via a mediator (M). Hence, the path model contains two parts: one focusing on explaining the mediator (M) through the independent variable (X) (Equation 1), and another explaining the dependent variable (Y) via the independent variable (X) while controlling for the mediator (M) (Equation 2):

$$\mathbf{M} = \mathbf{i}_{\mathbf{M}} + a\mathbf{X} + e_{\mathbf{M}} \tag{1}$$

(2)

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 $Y = i_Y + c'X + bM + e_Y$

In these equations, i_M and i_Y are the intercepts in the respective regressions, and e_M and e_Y are the error terms for *M* and *Y*. The regression coefficients are represented by *a*, *b*, and *c*[']. In the mediation model, the first component is the *direct effect*; the path that goes from the independent variable (*X*) to the dependent variable (*Y*) while holding the mediator (*M*) constant. The direct effect is indicated by *c*[']. It represents the effect of the independent variable (*X*, here the motivations variable) on the dependent variable (*Y*, here the perceived influence variable), which does not flow through the mediator (*M*, here the information exchange variable). The second component is the *indirect path* from the independent variable (*X*) to the dependent variable (*Y*), which is the product of *a* and *b*, where *a* refers to the effect of the independent variable (*X*) on the mediator (*M*), and *b* refers to the effect of the mediator (*M*) on the dependent variable (*Y*). It represents the effect of the independent variable (*X*, motivations) on the dependent variable (*Y*, influence), which flows through the mediator (*M*, information exchange). The total effect is the sum of the values for the direct and the indirect effect and is indicated by coefficient *c*.

Before performing the model, we consider the bivariate correlations between each of the variables. The correlation coefficients between the variables as well as their means and standard deviations for each variable are reported in Table 3. The results show that the independent variable, self-interested motivations (X_1) is positively related to perceived influence (Y), although the relationship is not significant (0.032, p > 0.05). The variable self-interested motivations (X_1) is, however, positively and significantly related with the mediator variable, information exchange (M) (0.317, p < 0.001), while the latter is, in turn, positively and significantly correlated with the dependent variable, perceived influence (Y) (0.374, p < 0.001). Although the variable prosocial motivations (X_2) is positively correlated with perceived influence (Y), the coefficient is not significant (0.022, p > 0.05); the same is true for the correlation between prosocial motivations (X_2) and information exchange (M) (0.043, p > 0.05).

The control variable of job position (C_1) is negatively, but not significantly correlated with the dependent variable, influence (Y) (-0.088, p > 0.05). This suggests that actors with high-level job positions may not wield more influence within MSPs, despite their formal position in their home organizations. For the control variable, years of participation (C_2), results show a positive, but not significant correlation with influence (Y) (0.128, p > 0.05). In addition, results for this control variable (C_2) suggest that senior MSP actors are driven less by self-interested motivations (X_1) (-0.251, p < 0.01). On the other hand, contributions of professional knowledge, as the third and final control

Variable	Mean	SD	1	2	3	4	5	6
1. Perceived influence (Y)	8.04	2.19						
2. Information exchange (M)	7.18	4.23	0.374***					
3. Self-interested motivations (X ₁)	6.30	2.50	0.032	0.317***				
4. Prosocial motivations (X ₂)	9.50	0.98	0.022	0.043	0.192*			
5. Job position (home org.) (C ₁)	4.98	2.03	-0.088	0.205*	0.028	-0.018		
6. Years of participation (C ₂)	2.96	1.52	0.128	-0.033	-0.251**	0.018	0.041	
7. Professional knowledge (C ₃)	3.13	0.87	0.260**	0.142	0.231*	0.187*	-0.096	0.270*

TABLE 3 Descriptive statistics.

Note: N = 116 organizations.

***p < 0.001.**p < 0.01.*p < 0.05.

variable (C_3), is positively and significantly correlated with influence (Y) (0.260, p < 0.001), as well as with both self-interested and prosocial motivations (0.231, p < 0.05 and 0.187, p < 0.05).

We should note, however, that the absence of a statistically significant correlation between self-interested motivations (X_1) and influence (Y), or between prosocial motivations (X_2) and influence (Y) does not preclude the possibility that both types of motivations might affect perceived influence through an intervening process, since no association between an independent variable (X) and a dependent variable (Y) is required as the precursor for a conditional process conducted through mediation (Edwards & Lambert, 2007).

6 | FINDINGS

The results of the mediation models are discussed in three stages (Edwards & Lambert, 2007). In a first stage, we focus on the impact of the respective types of motivations on perceived influence (i.e., Hypotheses 1a and 1b). We report the results of the models' total effect (*c*), as well as the direct effect (*c'*) which controls for information exchange as a potential mediator. The second stage focuses on the indirect effect through information exchange, that is, on component *a* (the effect of both types of motivations on information exchange; respectively Hypotheses 2a and 2b) as well as component *b* (the effect of information exchange on perceived influence; Hypothesis 3). We then consider all these coefficients together. Finally, in a third stage, we discuss the results of the control variables.

We used mediation Model 4 (within path analysis PROCESS, version 3.5.3 for statistical computing environment R) to test the hypothesized mechanisms laid out above.¹⁰ The antecedent variables of the model information exchange (M) and participatory motivation (X_1 and X_2), are not mean-centered or standardized for this analysis.

We ran two models for this paper (see Table 4 and Appendix B).¹¹ While Table 4 focuses on self-interested motivations controlling for prosocial motivations, Appendix B focuses on prosocial motivations without controlling for self-interested motivations.

6.1 | The (direct) effect of motivations on perceived influence (Hypotheses 1a and 1b)

We start this section by describing and discussing the results of the mediation model in Table 4, which uses selfinterested motivations as the independent variable while controlling for prosocial motivations.¹²

Self-interested motivations. Considering Hypothesis 1b, our results show that the variable 'self-interested motivations' has no significant effect on perceived influence. The *direct effect* of the model (c') suggests that two organizations that differ by one unit in self-interested motivations but are equal in information exchange (M) can be expected to differ by c' = -0.1087 units in perceived influence. However, this effect is not significant (c' = -0.1087, BTCI = [-0.2926, 0.0624]) since the bootstrapped confidence interval (BTCI) contains 0 (see Appendix C for more details). Moreover, the total effect in Table 4 is also not significant (c = 0.0003, CI = [-0.1763, 0.1769]). Hence, we find no support for Hypothesis 1b.

Prosocial motivations. Regarding Hypothesis 1a, despite the normative narrative of multi-stakeholder partnerships (Steets, 2010), the results show that prosocial stakeholder organizations do not have a higher level of perceived influence in the MSP. Table 4 shows that the *direct effect* is actually negative but nonsignificant ($g_1 = -0.0295$, BTCI = [-0.4576, 0.3488]). The results in Appendix B also show a nonsignificant negative *total effect* for prosocial motivations on influence (c = -0.0561, CI = [-0.4688, 0.3566]), offering no support for Hypothesis 1a.¹³ Hence, according to our data, actors do not gain influence in governance networks through actions derived from prosocial motivations. On the contrary, a negative (and significant) effect would have indicated that prosocial actors can undermine their role in the network; those who pursue genuine transparent objectives and policy reforms in the public-infrastructure sector would be seen as less influential by others. However, we do emphasize that this coefficient is not significant.

ABLE 4	Mediation model testing whether the variable self-interested motivations impact perceived influence, with information exchange as mediating variable (and
ontrolling fo	for prosocial motivations).

			Information 6	exchange (N	()			Perceived influ	(V) and		
	Antecedent		Coeff	SE	d	BTCI (LL, UL)		Coeff	SE	d	BTCI (LL, UL)
Variables of interest	Self-interested motivations (X)	a	0.5023**	0.1653	0.0030	0.1527 0.8465	ъ	-0.1087	0.0853	0.2053	-0.2926 0.0624
	Information exchange (M)		ı	ı	ī		q	0.2170***	0.0473	0.0000	0.1241 0.3186
Model effects	Mediation effect		ı	ı	,	1	ab	0.1090*	0.0471	ı	0.0305 0.2114
	Total effect		ı	ı	,	ı.	U	0.0003	0.0891	0.9976	-0.1763 0.1769
Control variables	Prosocial motivations (C ₁)	f_1	-0.1233	0.3926	0.7541	-0.9067 0.6513	g_1	-0.0295	0.1948	0.8800	-0.4576 0.3488
	Position in home org. (C_2)	f_2	0.4291*	0.1858	0.0228	0.0585 0.7835	<i>B</i> ₂	-0.1668	0.0943	0.0799	-0.3456 0.0167
	Years of participation (C ₃)	f ₃	0.0199	0.2706	0.9416	-0.5344 0.5725	g_3	0.0912	0.1342	0.4983	-0.2034 0.3810
	Professional knowledge (C4)	f4	0.4695	0.4769	0.3270	-0.4352 1.5413	84	0.5030*	0.2376	0.0365	0.0166 0.9665
Constant		im	1.5218	3.8743	0.6952	-5.7995 8.4641	.≿	6.4369**	1.9227	0.0011	2.3177 10.5863
			$R^2 = 0.148$ F (5, 110) = 3	3.83, <i>p</i> = 0.C	1031			$R^2 = 0.226$ F (6, 109) = 5.3	30, <i>p</i> < 0.00	11	
							1				

Source: PROCESS model outcome. The table design was taken from Hayes (2018). Indirect effect (mediation) = ab; direct effect = c; total effect = c.

Note: Standard errors (SE) and significance values (p) based on the standard normality assumption. 95%-bootstrapped Confidence Interval (BTCI) based on 10,000 bootstraps (LL = lower level, UL = upper level). For the total effect (c) the classic 95%-confidence interval is reported.

 $^{***}p < 0.001.^{**}p < 0.01.^{*}p < 0.05.$

6.2 | The indirect effect (Hypotheses 2a, 2b and 3)

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We now turn to the indirect effects of both types of motivations on perceived influence, with information exchange as a mediator.

Self-interested motivations. For self-interested actors, the indirect and direct effects are summarized in Figure 2. The first component of the indirect effect (a = 0.502, BTCI = [0.1527, 0.8465]) has a positive and statistically significant relationship. This contrasts with the expected results for Hypothesis 2b, which posits that self-interested actors are less likely to share information with others.

In addition, when we consider the second component of the indirect effect, results of the component *b* support Hypothesis 3 (b = 0.2170, BTCI = [0.1241, 0.3186]), confirming that actors who share more information are generally perceived as more influential. When two stakeholder organizations with equivalent self-interested motivations differ by one information-exchange unit (*M*), the organization that shares more information will be b = 0.2170 units higher on perceived influence. In other words, organizations that exchange more information receive more influence nominations.

Considering both coefficients *a* and *b* together, when we multiply both values (ab = 0.1090, BTCI = [0.0305, 0.2114]) this yields a significant positive indirect effect of self-interested motivations on perceived influence through information exchange (see Hayes, 2018).¹⁴ Hence, stakeholders who score higher on self-interested motivations were on average also higher on perceived importance because of their higher scores for information exchange. This means that information exchange strengthens a self-interested actor's capacity to gain influence in its MSP. Prior studies have treated information exchange as a competence-based status differentiator, exploring the impact of contributions to collaborative processes (Bunderson, 2003; De Klepper et al., 2017; Smith et al., 2014). Hence, information contributions may signal commitment and active participation, thus generating a perceived reputation as being influential, even when those actors are pursuing selfish interests.

Considering the direct and indirect effects together, we could argue that they produce opposite effects resulting in a total effect that is close to 0, that is, the total effect (c = c' + ab = -0.1087 + 0.1090 = 0.0003) (Aiken & West, 1991). Hence, although information exchange may ensure that self-interested actors create more positive perceptions of their influence, the negative (although nonsignificant) direct effect hints at the existence of other mechanisms that counter the positive effect of self-interested actors on being seen as more influential.

Prosocial motivations. Regarding Hypothesis 2a, we find that prosocial motivations do not significantly impact information exchange ($f_1 = -0.1233$, BTCI = [-0.9067, 0.6513] and a = 0.0598, BTCI = [-0.6236, 0.8494] in Appendix B). Not surprisingly, we, therefore, do not find any evidence of an indirect (mediation) effect of prosocial motivations on influence that works via information exchange (ab = 0.0120, BTCI = [-0.1197, 0.1832], in Appendix B). Together with the nonsignificant effects for the direct and total effect, we can therefore conclude that being prosocial does not make an actor more influential, neither directly, nor indirectly through the exchange of information.



FIGURE 2 Statistical diagram of the mediation model.

Control variables. Having discussed the main effects of the model, we now move on to discuss the control variables. As Table 4 shows, contributions of professional knowledge (C_4) have a positive and statistically significant effect on perceived influence ($g_4 = 0.5030$, BTCI = [0.0166, 0.9665]). Given that knowledge can be embedded within general exchanges of information, caution is advised in interpretating this control variable, as it may have a confounding effect. However, it should be noted that the model shows that professional knowledge does not explain information exchange ($f_4 = 0.4695$, BTCI = [-0.4352, 1.5413]), and that despite controlling for professional knowledge contributions, information exchange is nevertheless a significant factor that explains influence perceptions. Considering them separately, both serve as mechanisms that stakeholder organizations could strategically employ to shape their influence on others.

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On the other hand, job position (C_2) makes no significant contribution to explaining influence ($g_2 = -0.1668$, BTCI = [-0.3456, 0.0167]). However, it does contribute to explaining information exchange, the mediator of the model ($f_2 = 0.4291$, BTCI = [0.0585, 0.7835]). Hence, those actors holding senior positions in their home organizations tend to share more information within their MSP, from which we speculate that more senior stakeholders exchange information more proactively, possibly as a means to improve their influence and potentially bend collective goals.¹⁵

7 | DISCUSSION OF RESULTS

Overall, participatory motivations have shown not to be relevant in the way that was initially thought. The integration of these participatory drivers has unveiled a new perspective on the direction between motivations, information exchange and influence that counterargues established postures about governance networks and multi-stakeholder collaborations (Ansell & Gash, 2008; Huxham & Vangen, 2004; Steets, 2010).

First, we found that information exchange in networks is central to predicting perceived influence. This confirms that participants allocate influence to colleagues based on their structural position in the information exchange network, as it has been previously highlighted by Fischer and Sciarini (2015) when unpacking reputational power.

Contrary to Ingold and Leifeld's (2014) evaluation of policy networks in Switzerland and Germany, this paper shows that stakeholders in MSPs are perceived as influential because of their structural position in the information exchange network, but not necessarily because of their institutional roles nor their level of seniority. In other words, it is not about who an actor is, but about what this actor does or seems to do in a network that defines its influence.

Second, the results confirm the central role of participatory motivations. However, contrary to our expectations, those driven by self-interested motivations turn out to be more influential. Our analysis shows that information exchange plays a key role in mediating the relationship between self-interested motivations and influence. Similar findings have been identified in research about Swiss networks/forums of natural habitat and hazard governance (see Fischer & Maag, 2022). Actors providing high input into the governance network were those that were looking for individual benefits, aiming at gaining influence over policy-making and practice, and this irrespective of whether they also had more collective objectives.

Along with our study, these more recent findings of influence patterns indicate a potentially problematic situation for networks. Key collaborative inputs, such as information, seem to be shaped by conflicting motivational preferences among stakeholders. The information that stakeholders provide may reflect their own biases, thereby reducing the effectiveness and quality of governance in networks. Those who receive information only from a subset of like-minded peers can forgo valuable sources of information and knowledge that are purportedly offered by governance platforms of multi-stakeholder participation. Polarized information exchanges within MSPs may cause stakeholders to reject decisions that fail to consider opposing views (Angst & Brandenberger, 2022). When forming coalitions, persuading adversarial partners, and controlling agendas, stakeholders may bypass or abandon agreed-to collective objectives (Fischer & Maag, 2022; Leifeld & Schneider, 2012).

Hence, it should not be assumed that participants of the governance network are motivated entirely for the betterment of society (Fischer & Maag, 2022; Gustafson & Hertting, 2017). In doing so, one may fall into the trap of the

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de facto "participatory design" (Fung, 2006, p. 66), which is the product of a top-down perspective of policymakers and practitioners' intentions. One should also consider the bottom-up expectations of participants (Gustafson & Hertting, 2017). As we have seen, these tend to shape governance dynamics within networks and a network's collective objectives, which are subject to ongoing interpretation and negotiation.

8 | CONCLUSION

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It has been well established in various branches of the literature that actors with considerable influence hold clout in decision-making processes (Fischer & Sciarini, 2015; Ingold & Leifeld, 2014). However, very little empirical research exists in public administration and political science on how actors' motivations to participate in governance networks might impact their level of influence in these networks.

This paper contributes to the extant literature, by paying attention to the role of such endogenous determinants of influence, instead of focusing on the usual factors, such as an actor's reputation or formal authority (Brass, 1984; Parry, 2005). Disentangling the determinants of influence is crucial for assessing the sustainability of governance networks and multi-stakeholder collaborations (Ingold & Leifeld, 2014). To that end, our analysis recognizes the different goals of network actors and the direction of their actions.

Prosocially motivated actors are often assumed to be central to many accounts of governance-network problems. Theoretical accounts see the commitment to altruistic motivations as the sine qua non condition for collective action and effective governance relationships. This paper tests this argument by analyzing a unique relational dataset collected in 2020 from organizational stakeholders in 10 anti-corruption partnerships across three regions in the world (Eurasia, Africa, and Latin America).

Using a path analysis to test a mediation model, our data reveals that actors who indicate that they are driven by self-interest contribute significantly more to information exchange in these governance networks (a core collaborative activity), while we found no effect of the level of prosocial motivations. These findings are intriguing, not only because they challenge the established theoretical claims about networks involving multi-stakeholder collaborations, but also because they show that the information that is shared inside the stakeholders' governance network tends to involve actors who are focused more on their own private interests, which might raise concerns about their contributions to the decision-making process.

Furthermore, we find support for our claim that information exchange serves as a mediator, helping to explain how self-interested actors tend to have a higher perceived influence among participants of governance networks. The high levels of input provided by some actors confer them influence, which can be used to gain control over a network's problem-solving, agenda-setting, and decision-making.

Hence, by exchanging information, self-interested actors may be able to strengthen their influence over colleagues and peers, pursuing goals that may end up departing from collective objectives. Of course, we do not claim that motivations and information sharing fully determine perceived influence in networks, but we do claim that they have an important impact. The broader significance of our findings is that we were able to explain how information exchange plays an important mediating role.

The present findings support theoretical arguments from the resource-dependence theory (Pfeffer & Salancik, 1978) and social-exchange theory (Blau, 1964), which posit that actors engage in collaborative interactions because they expect to be rewarded, either directly or indirectly. Such perceived influence (a reward) may accrue to actors who proactively exchange information, potentially causing governance networks to undermine their own formal institutional partnership narratives by amplifying rather than moderating influence disparities (Faul, 2016; Fischer & Maag, 2022; Schrank & Whitford, 2011).

These results clearly show why practitioners and conveners of governance networks need to pay particular attention to what motivates their most devoted stakeholders, that is, those who are more active than others.

While we believe that our results provide compelling evidence for the role played by motivational factors and information sharing as determinants of an actor's influence in governance networks, several limitations remain. First, the mediation model tested here may greatly oversimplify the complex dynamics through which motivations impact perceived influence in real-world dynamics. We believe that this study reveals a key piece of the puzzle. However, future research should explore whether our findings are robust when other potential explanatory variables are taken into consideration, and when potential alternative mediating variables are considered, such as actors' alternative ways of participation (e.g., through meetings attendance) or potential ways that actors deal with conflict in such networks. Moreover, future research might also want to explore potential network-level moderating factors such as network size and network maturity.

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Second, our research design only allowed us to evaluate the impact of participatory motivations on actors who collaborate in governance networks. Another fruitful direction for future research involves testing our claims in alternative types of networks (i.e., policy, collaborative, coordinative networks, etc.), as well as in a wider range of countries and other issue areas (e.g., by using cross-level effects in a multilevel model). At present, we have assumed that our findings may be generalizable given the cross-sectoral and multi-stakeholder nature of many of these networks. However, more research is needed in this respect. This would help to disentangle the conditions under which influence imbalances lead to the fragmentation or disintegration of different types of networks that depend on the engagement of a myriad of actors to find solutions collaboratively.

Finally, regarding the delineation of our network boundary, we only considered the impact of those actors that, at a country level, have invested time and resources in implementing a transparency initiative (i.e., the local members of the stakeholders' governance network) (see Appendix A). We did not collect data from the founders of the initiative, who are themselves stakeholders. This distinction is important, as the latter have different incentives to participate in governance networks (Fischer & Leifeld, 2015) and may portray a different rationale for perceived influence. This is one further limitation that future research may want to pursue; disentangling the influence of the stakeholder participants versus the stakeholder founders and considering whether their respective influence is related to different participatory motivations.

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CONFLICT OF INTEREST STATEMENT

The authors have declared that no competing interests exist.

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PEER REVIEW

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ENDNOTES

- ¹ Fischer and Maag (2022) differentiate a number of benefits that actors may obtain from networks and that can determine their participatory motivations.
- ² Similarly, for Fischer and Maag (2022) more prosocial benefits may include exchanging practices (i.e., networking with others, knowledge sharing, and learning), and collective participation (access to wider audience and the ability to make compromises with others). For self-interested benefits, the authors stand out individual benefits (such as improved reputation and social visibility in a group), and policy participation (gaining influence in forum decisions).
- ³ This includes technical infrastructure specifications, such as estimated costs (forecasted and actual), contractor companies, project deadlines, and differences between original and final infrastructure contracts (Truex & Søreide, 2011).
- ⁴ See Appendix A for a detailed description of CoST's institutional framework, members' roles and its basic form of operation.
- ⁵ We followed formal organograms and stakeholder maps facilitated by the International Secretariat. MSPs' official websites were also employed as sources to retrieve contact information of stakeholder organizations.
- ⁶ The Assurance Team is a group of professional infrastructure experts that help the MSP and the National Secretariat to review technical information of infrastructure projects, and flag contractual discrepancies. Their findings feed annual public reports (more in Appendix A).
- ⁷ Key elements for information exchange included: infrastructure-project cost and time overruns, tender and contract awards, contract management, and the social and environmental impacts of infrastructure developments.
- ⁸ These arguments may have included: professional knowledge, political views, and/or expertise in the implementation of the initiative.
- ⁹ Respondents were not informed of the classification of motivational items during the survey.
- ¹⁰ We selected 95% confidence for the bias-corrected bootstrapped confidence intervals (BTCIs), using 10,000 bootstrap sample estimates (Hayes, 2018).
- ¹¹ Additional configurations of models are available upon request.
- ¹² The results for self-interested motivations discussed below do not change when the variable of prosocial motivations is not controlled for.
- ¹³ These results do not change when the variable of self-interested motivations is controlled for.
- ¹⁴ For an explanation of the inferences that support information exchange as a mediator in the model, considering bootstrapped confidence intervals (Wood, 2005), see Appendix C.
- ¹⁵ We are thankful to a reviewer, whose comments guided us to draw this conclusion.
- ¹⁶ These are independent groups of professionals: engineers, architects, scholars and other experts.
- ¹⁷ National Secretariats operate as network administrative organizations (Provan & Milward, 2008), intending to organize and coordinate the activities of the participant stakeholders to produce better outcomes.

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APPENDIX A: COST INSTITUTIONAL FRAMEWORK AND NETWORK BOUNDARY

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The implementation of CoST unfolds under five key mandates: (1) the program implementation is delivered and monitored by a national multi-stakeholder partnership (MSP); (2) the MSP in every country agrees upon criteria for selecting a subset of public-infrastructure sector projects for an in-depth review, and selects agencies or institutions to work with, for this purpose; (3) the MSP requests information from the relevant public sector procurement agencies, and hires an Assurance Team¹⁶ to review the information and highlight any discrepancies and reasons for concern; (4) the MSP synthesizes this information into an annual report and communicates the findings through media outlets to the public; lastly, (5) the MSP makes recommendations to governments to improve infrastructure projects and sector performance, while also following up progress in this regard (Hawkins & McKittrick, 2012; Truex & Søreide, 2011).

Every MSP relies on a National Secretariat that serves as a full-time administrative body that is responsible for the day-to-day activities for the implementation of CoST.¹⁷ Some of these tasks entail the facilitation of communication between the International Secretariat and the MSPs, the provision of technical support for stakeholders, and building capacity for the procuring entities to disclose data (CoST, 2019).

The role of the International Secretariat is largely to offer learning, support, and guidance to participating countries, and encourage additional countries to join (CoST, 2019). The international secretariat monitors the progress of implementing countries and informs the *Board of Directors*. The board is the main decision-making body of CoST as it sets out the admissions criteria and approves countries' applications to join the initiative. It also helps to raise funds and provide national-level support to CoST members (CoST, 2019).

To undertake analysis on social networks in an organizational setting, it is relevant to identify which actors should be counted as members of the network, and thus be included in the data collection. The MSP is the organizational unit of CoST, where the phenomenon of interest of this paper resides, because it is the space where multi-stakeholder interactions occur for information exchange and collaboration. That is, the MSPs represent the multi-stakeholder sphere where tasks of collective action unfold, and where influence asymmetries occur, given the presence of actors from different backgrounds and communities of practice.

The configurations of the MSPs within CoST's institutional framework represent an easily observed and recognized entity with "natural" boundaries of who participates and who does not: representatives of public and nonpublic constituency groups. Although not stakeholders per se, the National Secretariats and the Assurance Teams also are part of the MSPs and their networks of interactions. These organizational characteristics defined our research design and data collection strategy. Figure A1 illustrates the demarcation of the networks of interests within the organigram of CoST as of 2020.

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FIGURE A1 Organizational framework of CoST. *Source*: Author's own elaboration based on CoST's official website (2020). [Color figure can be viewed at wileyonlinelibrary.com]

APPENDIX B

Mediation model with prosocial motivations as independent variable (without self-interested motivations)



			Information	exchange	(M)			Perceived influ	uence (Y)		
	Antecedent		Coeff	SE	d	BTCI (LL,UL)		Coeff	SE	d	BTCI (LL,UL)
Variables of interest	Prosocial motivations (X)	a	0.0598	0.4021	0.8821	-0.6236 0.8494	ν	-0.0681	0.1930	0.7248	-0.5057 0.3308
	Information exchange (M)		ı	I	ı	·	q	0.2002***	0.0455	0.0000	0.1105 0.2960
Model effects	Mediation effect		I	ı	ı		ab	0.0120	(0.0760)		-0.1197 0.1832
	Total effect		I	ı	ı		U	-0.0561	0.2083	0.7880	-0.4688 0.3566
Control variables	Position in home organization (\mathcal{C}_1)	f_1	0.4744*	0.1919	0.0150	0.0844 0.8481	g_1	-0.1687	0.0946	0.0774	-0.3523 0.0176
	Years of participation (C ₂)	f_2	-0.2585	0.2639	0.3295	-0.7659 0.2719	<i>g</i> ₂	0.1471	0.1272	0.2500	-0.1127 0.4042
	Professional knowledge (C ₃)	f ₃	0.9052	0.4715	0.0574	-0.0428 1.9038	g	0.4239	0.2299	0.0679	-0.0558 0.8766
Constant		im	2.1820	4.0092	0.5874	-5.4276 8.7926	i,	6.3305**	1.9263	0.0014	2.2313 10.7639
			$R^2 = 0.077$ F(4, 111) = 1	2.31, <i>p</i> = 0.	.063			$R^2 = 0.215$ F(5, 110) = 6.0	01, <i>p</i> < 0.001		
Source: PROCESS model	outcome. The table design was taken t	from H	ayes (2018). I	Indirect effe	sct (mediatic	on) = ab ; direct e	sffect =	<i>c</i> '; total effect =	= c. Standarc	d errors (SE)	and significance

g values (p) based on standard normality-based assumption. 95%-bootstrapped Confidence Interval (BTCI) based on 10,000 bootstraps (LL = lower level). UL = upper level). $^{***}p < 0.001, \ ^{**}p < 0.01, \ ^{*}p < 0.01, \ ^{*}p < 0.05.$ Sou

APPENDIX C: STATISTICAL INFERENCES FOR THE MEDIATION MODEL USING BOOTSTRAPPED CONFIDENCE INTERVALS

Researchers generally want to know whether "chance" can be discounted as an explanation for the parameter values obtained through hypothesis tests. More concretely, in the case of a regression analysis, we might want to know whether specific regression coefficients are *significantly* different from 0. *Significance* refers to being able to make a statement which is true beyond the specific data being analyzed, that is, generalizable to similar cases (the "population"). Constructing the 95% confidence interval for a coefficient helps us answer the question whether the coefficient is significant (Hayes, 2018). A coefficient is considered significant if the confidence interval for the estimate does not include 0 (i.e., we can be confident that the true value for the coefficient in the "population" is different from 0). In the case of constructing the 95% confidence interval around an estimate, it is very likely that the true regression coefficient for the larger "population" lies between the lower and upper boundary of the confidence interval (with a 5% chance that this is not the case).

The classic approach of building the confidence interval relies on the normality assumption; an assumption which is not always met. Instead, a resampling method is sometimes used. It generates the sampling distribution by taking a large number of resamples with replacement from the empirically observed data, and therefore does not rely on normality. This distribution is then used to construct a confidence interval for the coefficient (Hayes, 2018). Because bootstrap confidence intervals (BTCI) consider the potential irregularity (i.e., non-normality) of the sampling distribution, it will, in general, yield more accurate inferences than other methods (Wood, 2005).

A bootstrapped approach is particularly important to evaluate the indirect effect *ab* in a mediation model since the sampling distribution for this effect tends to not be normally distributed. Hence, to draw inference about the direct, indirect, and total effects of the mediation models reported in Table 4 and Appendix B, we followed the approach proposed in Hayes (2018) and Wood (2005). More specifically, bootstrapping based on 10,000 samples was used to generate the confidence intervals for the direct and indirect effects. In what follows, we briefly discuss how to interpret the results in Table 4.

To determine whether the direct effect in the regression model (c') is significantly different from 0, we must ascertain whether the 95% bootstrapped confidence interval (BTCI) for the estimate includes zero. As Table 4 shows, the direct effect is negative, but with 95% confidence the true value of the direct effect lays in between -0.2926and 0.0624. Since the range for the 95% bootstrapped confidence interval includes zero, we cannot rule out that 0 is a plausible value for the direct effect. Hence, we have no proof to claim that the true value for the effect is significantly different from 0.

The indirect effect *ab* tests whether the variable "self-interested motivations" affects information exchange, which in turn affects perceived influence. The value is 0.1090, and the bootstrapped confidence interval for this effect ranges between 0.0305 and 0.2114. Since this range excludes zero we can conclude that the indirect effect is positive and statistically significant.