

A Confluence of Interests

How boundary spanning activities influence trust and control and the performance of public-private partnerships.

A case study of the Hindon projects.



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Abstract

Over the past decades governments throughout the world have increasingly looked to public-private partnerships to resolve increasingly complex issues. Within these partnerships trust and control play a vital role. This thesis examines the different ways boundary spanning activities within a public-private partnership impact trust and control to improve the networks' performance. The Hindon project, a fascinating public-private partnership that emerged when public and private organisations from India and the Netherlands came together to tackle the complex problem of cleaning the heavily polluted Ganges river, serves as the case study and provides a real-world example of the various theoretical concepts covered.

This thesis identified three core boundary spanning strategies; networking, aligning boundaries, and forging common ground. These strategies contained numerous boundary spanning activities that effected trust and control within the partnership. This thesis found that the different forms of trust made partners more flexible, whilst the various control mechanisms enhanced accountability. Therefore, this thesis concludes that when successfully implemented boundary spanning activities improve the performance of public-partnerships by making them more robust, whereby they better suited to withstand the uncertainties and complexities associated with international public-private-partnerships.

This thesis has been divided into six chapters to guide the reader through the research. In the first chapter, the research is introduced and its scientific and social relevance explained. Chapter two contains a theoretical framework that examines the existing research on the topic and explores the various concepts that will be used in the case study. The third chapter outlines the methods that have been used to conduct the research. Chapter four presents the results from the various data collection methods. The fifth chapter discusses the findings, connecting them to the literature and research question. Chapter six contains the conclusion and addresses the limitations of the research.

Keywords: trust, control, performance, public-private partnership, boundary spanner, India

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1 Introduction

Our society and the problems it faces are becoming more complex. Klijn and Koppenjan (2015), note that governments and organizations are increasingly involved with 'wicked' problems. Key characteristics of such problems are that they are socially constructed and span multiple organizational, professional, and jurisdictional boundaries (Williams, 2002, p.103). Therefore, to gather the necessary knowledge there is a need to collaborate with 'various actors with diverging or even conflicting interests and perceptions', which brings along new challenges (Klijn & Koppenjan, 2015, p.2). In response to the need to deal with wicked problems, governments are moving away from traditional public administration methods, embracing other management forms like New Public Management (NPM) and Network Governance (NG). In particular, the past two decades has seen a significant increase in the number of public-private-partnerships (PPP), which many governments have come to view as an efficient way to 'realize more innovative projects' (Warsen et al, 2018, p.1165). As PPPs involve numerous stakeholders, many studies have been conducted to analyse what factors improve cooperation, and thereby performance. Trust and control both seem to play a crucial role, and a substantial body of research exists analysing these themes in relation to PPPs. Edelenbos and Eshuis (2012) argue that the complexity outlined above may be handled either by trust or control, as both 'reduce the number of possibilities to be taken into account'.

1.1 Research Question

This thesis will explore the way boundary spanning activities influence trust and control within a public-private partnership. Scholars have already explored the interplay between trust and control, however, in a recent article Abdullah and Khadaroo (2020) noted that the way the two concepts interact remains 'inadequately understood' highlighting that studies have 'yielded contradictory findings' (p.1). On the one hand, trust has been shown to complement control mechanisms by increasing the flexibility of the stakeholders involved. On the other hand, control mechanisms (such as elaborate and stringent contracts) have been shown to create 'an (Das & Teng, 2001, p.2).

In response to these gaps in the existing literature, this thesis examines the following research question: 'In what ways do boundary spanning activities within a public-private partnership impact trust and control to improve the networks' performance?'. Sub questions include: What do we already know about role of trust within PPPs? What do we already

know about role of control mechanisms within PPPs? What do we already know about the interplay between trust and control within PPPs? What boundary spanning activities influence trust and control? How are boundary spanning activities used in throughout the Hindon projects? How can performance be measured in PPPs?

1.2 Research Aim

Through a case study this thesis aims to describe the ways boundary spanning activities (connected to trust and control) are used within international public-private partnerships to improve their performance. The case study will be supplemented with semi-structured interviews and observations of the PPP's meetings to provides an insight into the way stakeholders within the partnership view and experience trust and control.

1.3 Scientific Relevance

This thesis contributes to the existing literature on the topic for three reasons. Firstly, it touches on an existing gap and contradiction in the literature. Namely, the ongoing scholarly debate around the relationship between trust and control, where some authors have argued that they can coexist whilst others argue they are mutually exclusive (Edelenbos & Eshuis, 2012, p.648). By analysing the Hindon projects as a casestudy, this thesis will contribute to the scholarly understanding of how trust and control can coexist, how boundary spanning activities effect influence them, and how they impact a PPP's performance. In a sense this research therefore expands upon the work of Van Meerkerk & Edelenbos (2014), which examines the impact of boundary spanners on network performance, and found a positive relationship between the presence of boundary spanners on both trust and network performance. However, their study did not investigate boundary spanners' use of control mechanisms, something this study does do. Secondly, the international scope of this research provides scientific value because many existing studies on the topic tend to focus on PPPs within a single country. Through analysing an international PPP the ways cultural differences effect trust and control within the partnership may become evident. Thirdly, whereas most existing studies on boundary spanners focus on key individuals fulfilling this role within the PPP, this study instead chose to analyse boundary spanning activities that all partners could engage in.

1.4 Societal Relevance

Over the past decades the Indian government has drastically increased its infrastructure spending, and increasingly looks to public-private partnerships to deliver these 'public services at reasonable cost' (Gol, 2007, p.256 in Datta 2009). This thesis provides a valuable insight into an international infrastructure PPP in India, a model that been widely used to tackle various complex infrastructure problems in the country. Both India and the Netherlands continue to engage in PPPs to provide public services that were traditionally provided by the government or privatized in the 1990s. As the project analysed in this thesis is regarded as a pilot project for a larger nation-wide approach to clean the Ganges, it may provide valuable insights for future projects. This study will contribute to an understanding of the way boundary spanning activities can be used to foster trust and control, and how this influences the PPP's performance. A greater understanding of the ways such large international PPPs operate is valuable for the public, who's tax money (often) contributes to these projects, especially in India, where PPPs have not been received without criticism¹ (Datta, 2009, p.73).

¹ For example, the criticisms of Amrita Datta (2009), who vehemently argues that the rise of PPPs in India is just a façade for the continued privatization of tasks formerly carried out by the central government.

2 Theoretical Framework

2.1 Public-Private Partnerships

Public-private partnerships (PPPs) have become increasingly popular over the past decades as governments look for more efficient ways to provide services and tackle large projects. This thesis adopts the definition of PPPs provided by Edelenbos & Klijn (2007) who characterize the partnership as a form of “cooperation between public and private actors with a durable character in which actors develop mutual products and/or services and in which risk, costs, and benefits are shared” (p.27). This definition allows for a broad application of the PPP model, which is why this thesis will specifically focus on arrangements that concern ‘a long-term infrastructure contract that emphasizes tight specification of outputs in long-term legal contract’ (Hodge & Greve, 2007, p.457).

2.1.1 Benefits of Public-Private Partnerships

Hodge & Greve (2007) identified two primary reasons why governments engage in public-private partnerships; reduced pressure on governmental budgets, and increased efficiency as opposed to the traditional public alternatives. Firstly, the long-term nature of PPPs allows governments to spread the spending of large amounts of taxpayer money over a relatively long period of time. This not only makes it more feasible to direct the necessary funds to the project, but also makes it easier for politicians to propose and start large scale projects as budgetary concerns are lessened. Moreover, risk-sharing is a key characteristic of PPPs and often entails that the private partner also takes on some of the financial risk of the project. Next to the benefits of having access to the (financial) resources of multiple stakeholders, the risk-sharing is an important component of PPPs that make them attractive for government and private parties alike. Secondly, involving multiple stakeholders into large infrastructure projects brings together important resources that may otherwise not have been available. However, the efficiency of PPPs stems from more than the combined value of the partners’ resources. Edelenbos & Klijn (2007), stress the importance of synergy, referring to the idea that close cooperation leads to ‘mutually added value’ that would not have been possible with the sum total of the partners’ resources (p.27). Keers and Fenema (2018) state that PPPs ‘are set up to leverage complementarities and potential synergies between public and private knowledge assets’, noting that the synergy goes beyond sharing physical resources as it also encompasses the sharing of knowledge and network resources (p.683). To manage the risk-sharing within PPPs and ensure the benefits of cooperation exceed the

costs of cooperation, PPPs establish control mechanisms to safeguard against opportunist behaviour, these will be discussed in the section below.

Much like governments, the synergetic effects of public-private partnerships form a major reason why private companies engage in PPPs, though access to government resources and networks is also a very important factor. Keers and Fenema (2018), found that strategic interdependence and established social ties are key factors explaining private partner's willingness to engage in PPPs (p.683). For private companies, the resources and network the public partner provides may simply be access/authorization to carry out the project.

2.1.2 Shortcomings of Public-Private Partnerships

Strategic alliances inherently carry risk with them. This is best demonstrated by the fact that 'the failure rate of alliances is significantly higher than that of the single firm' (Das & Teng, 2001, p.251). Keers & Fenema (2018), identified multiple types of risk that PPPs are confronted with, the main ones being; unique risks, cooperation risks, performance risks, and coordination risks. Unique risks stem from conflicting public-private cultures, incentives, and objectives. Typically, the goal of the public party is to provide services with public value, whereas private partners are ultimately driven by a financial incentive. Cooperation risks refer to the possibility of stakeholders engaging in opportunistic behaviour that is detrimental to the goal of the partnership, other stakeholders, or the relationship between partners. Performance risks reflect the possibility that partners do not deliver satisfactory outputs, 'even though cooperation between the partners is satisfactory' (Keers & Fenema, 2018, p.863). Coordination risks are inherent in partnerships because they require an additional level of communication and division of labour. Good management skills can remedy these issues. Finally, Hodge and Greve (2007) note that PPPs often have a lock-in effect, as it can be a difficult and lengthy process to leave the a failing partnership prematurely.

Edelenbos and Eshuis (2012) observe that there are two ways with which the complexity inherent in the modern societies PPPs operate in can be reduced; trust and control. Both trust and control mechanisms can be utilized to 'reduce the number of possibilities to be taken into account' (p.648). The following sections will examine trust and control mechanisms, how they interact, and how they impact PPP performance.

2.1.3 The 'Iron Triangle' - Measuring Performance in Public-Private-Partnerships

As discussed above, stakeholders engage in PPPs to maximize their resources towards a common, and share the risk associated with the venture. Warsen et al. (2019) stress that control mechanisms and good cooperation (greatly facilitated by strong trust between stakeholders) are vital to the success of a PPP, but how is this success measured?

One metric that can be used to assess a PPP's performance is the 'iron triangle' as introduced by Martin Barnes in 1988. Though an old concept, in recent years it has received renewed attention from various scholars (Barnes, 1988; Dimitriou et al., 2013; Lehtonen, 2014; Pollack et al., 2018). In his paper Barnes (1988) proposes three criteria that can be used to measure performance of megaprojects. Firstly, the projects must be completed on time. Secondly, the project must be completed within budget. Thirdly, the delivered results (project) must meet prescribed specifications. In the past three decades the iron triangle has become 'a central concept to project management research and practice, representing the relationship between key performance criteria' and has become the standard for routinely assessing project performance (Pollack et al., 2018, p.521). PPPs often establish various control mechanisms to measure if these three performance criteria are met. As these control mechanisms may be seen as constraints for the project, some scholars have opted to rename the iron triangle the 'triple constraint', others simply refer to the criteria as a focus on 'time, money, quality' (Pollack et al., 2018, p.527).

Das & Teng (2001) argue that output control mechanisms constitute the primary way performance is measured within a PPP. Typically, contracts between the partners will contain rigid and detailed product specifications, performance indicators such as output targets, and clear deadlines. When the PPP's performance can be measured objectively, for example by using the iron triangle, output control becomes particularly valuable (Das & Teng, 2001, p.59). However, though formal control mechanisms are a good tool to measure a PPP's quantifiable output, it should be noted that studies have shown that few large infrastructure projects nowadays rely 'solely on iron triangle considerations in ultimately judging the success of their projects' (Dimitriou et al., 2013). If performance output is difficult to measure objectively it may be preferable to 'establish and utilize formal rules, procedures, and policies to monitor and reward desirable performance' (Das & Teng, 2001, p.259). Moreover, if there is high trust within the partnership it may not be necessary to create an elaborate framework of binding agreements and contracts. Warsen et al., (2018) noted that lower amounts of trust in a partnership generally increases the amount of output control

deployed (p.1167). In the following sections the different forms of trust and control will be discussed and their influence on one another and PPP performance examined.

2.2 Control

Control is generally seen as a process of regulating and monitoring behaviour to reduce uncertainty and opportunism in the pursuit of objectives (Abdullah & Khadaroo, 2020, p.3). This is especially important in PPPs, where there may be a conflict of interests between the public and private stakeholders. Control can be perceived as 'a regulatory process by which the elements of a system are made more predictable through the establishment of standards in the pursuit of some desired (performance)' (Leifer & Mills, 1996, p.117). Stemming from the private sector, it is unsurprising that control mechanisms have gained prominence since the rise of the NPM doctrine. Since the rise of NPM, governments have looked to the private sector for solutions to the increasing societal complexity, adopting the doctrine's reliance on performance indicators, explicit standards, and control protocols (Edelenbosch & Eshuis, 2012, p.650). Moreover, control mechanisms become especially important when there is a lack of trust (Warsen et al, 2018, p.1167).

Das and Teng (2001) classified two broad types of control modes within PPPs; formal control and informal control. Formal control is achieved through 'the establishment and utilization of formal rules, procedures, and policies to monitor and reward desirable performance' (Das & Teng, 2001, p.259). Edelenbosch & Eshuis (2012) emphasize that formal control 'relies on formal rules and procedural rationality' (p.654). Formal control mechanisms work to delineate the goal of the partnership, the legal boundaries of cooperation, the allocation risk, and establish when and what type of sanctions can be applied when partners do not perform to the agreed upon standards. Formal control therefore encompasses the iron triangle described in section 2.1.3, but also provide a binding framework for conflict resolution and risk allocation within the partnership.

In contrast, informal control mechanisms are 'focused on developing shared values, beliefs, and goals among members so that appropriate behaviours will be reinforced and rewarded' (Das & Teng, 2001, p. 259). This is primarily achieved through social interactions between partners, and may therefore also be referred to as social control mechanisms. Informal control can either be exerted in everyday social interactions between partners, or take the form of rituals and ceremonies specifically designed to foster shared values, norms, and beliefs. Such rituals and ceremonies can take the form of one-on-one meetings or be large

scale events. Abdullah and Khadaroo (2020) summarized informal control as the creation and exertion of shared meanings and the internalization of shared values and goals (p.3). This works to improve coordination between the partners, as will be explained below.

2.2.1 How Control Mechanisms Benefit PPP Performance

Formal control and informal control work to improve a PPP's performance in different ways. As described above, formal control is used to measure if the PPP has met the iron triangle criteria. Contracts will contain a deadline for the completion of the project. Often, PPP contracts will establish multiple deadlines for the various tasks that must be completed throughout the different phases of the project. Similarly, contracts will specify the costs that may be incurred for the project. Though it should be noted that in large PPP infrastructure projects 'no forecast is ever precisely accurate', placing a limit to the costs of the project helps safeguard against opportunistic behaviour from partners who may be incentivized to run up the costs (Barnes, 1988, p.71). Clear and extensive product specifications are especially important in PPPs tackling large infrastructure projects that include Design Build Finance Maintain Operate (DBFMO) contracts, because the partnership often lasts decades and motivations for cooperation may differ. Generally, the primary goal of the public partner is to provide a service of public value, whereas private partners are ultimately driven by economic incentives. By defining what products/services partners are expected to deliver these control mechanisms help ensure the collective resources are used towards a common goal.

Once the tasks/roles have been defined and deadlines determined, contracts often establish 'what should be done if actors do not fulfil their obligations' (Eshuis & van Woerkum, 2003, p.386). Such mechanisms for dispute settlement are especially 'important for the stability and order' within such long-term PPPs where conflicts are certain to emerge (Eshuis & van Woerkum, 2003, p.386). Barnes (1988), argues that the majority of disputes result either from a partner being taken by surprise by an event and being unwilling to deal with its consequences or that contractual documents 'leave scope for two interpretations' which at best leads to miscommunication between partners and at worst opens the door for opportunistic behaviour (p.79). When disputes arise, they must be settled as quickly as possible, before they can escalate to a degree that threatens the project (Barnes, 1988, p.79). Contractual agreements about dispute settlement is therefore crucial to the performance of a PPP.

Similarly, various monitoring practices partners may be installed to check that partners are delivering satisfactory services and indicate when sanctions or rewards may be applicable. These range from periodic meetings discussing progress to concrete output targets. In these ways sanctions work to further disincentivize opportunistic behaviour. Overall, it is important to remember that formal control mechanisms, like those listed above, provide the greatest benefit to PPP performance when the desired output can be measured objectively (Das & Teng, 2001, p.259).

As not all desired outcomes can be measured objectively informal control may also be necessary to provide certain benefits for a PPP's performance. Successful informal control mechanisms that created shared values and beliefs (whether through daily social interactions or planned rituals) can foster a strong in-group identity which 'have been shown to exert a positive effect on organizational performance (Schotter, et al., 2017, p.406). Aligning values and beliefs within a PPP motivates partners work together towards a common goal. Social monitoring of desired behaviours helps clarify and create realistic expectations of a partner's performance within the partnership (Abdullah & Khadaroo, 2020, p.3). Moreover, informal control may allow partners to demonstrate competencies that are not captured by output control mechanisms. This is especially relevant for long-term PPPs where 'extended interactions (can) help stakeholders to build mutual understanding and to demonstrate expertise and competence' (Coleman & Stern, 2018, p.304). Providing more opportunities for partners to demonstrate their abilities (successfully), helps foster competence trust within the partnership. Furthermore, because informal control is conducted through social interactions, it helps prevent misunderstandings and miscommunication between partners. Again, this is especially pertinent to long-term PPPs where formal control mechanisms like contracts may not be able to capture all the details and changing circumstances of a complex project. Therefore, informal control can prevent the implementation of formal dispute settlement mechanisms (described above) which can be costly and often have harsh sanctions often associated with them. In this way, informal control 'promotes flexibility and long-term thinking as opposed to meeting short-term performance targets' (Abdullah & Khadaroo, 2020, p.4).

2.2.2 Shortcomings of Control Mechanisms on PPP Performance

Despite its many benefits, PPPs cannot solely rely on control mechanisms to bolster their performance. Firstly, it is impossible for control mechanisms to address all aspects of a partnership. Even extensive and comprehensive contracts are unable to identify and take all of the future uncertainties into account. For his reason, Warsen et al. (2019), concluded that

contractual agreements within PPPs must be complemented by trust between partners if they are to be successful (p.385).

Secondly, creating and upholding elaborate control mechanisms is expensive and time consuming (Edelenbos and Klijn, 2007, p.31). This redirects valuable resources away from the core tasks that work to complete the actual goal of the project. Datta (2009), aptly noted that ultimately the benefits (synergy) of the partnership must outweigh the overhead both parties need to invest (p.74).

Thirdly, stringent contractual obligations may produce a lock-in effect (Hodge & Greve, 2007, p.552). This paralyses the partnership's ability to adapt to changes and causing the PPP to pursue predetermined goals that no longer contribute to the broader goal of the project. Additionally, such rigid output controls make it difficult for partners to pursue opportunities that were not planned out beforehand (Das & Teng, 2001, p.263). This makes it more difficult for PPPs to seize windows of opportunity and capitalize on unforeseen chances.

Fourthly, some scholars argue that often the attempts of managers to actively stimulate specific desired behaviours are in vain because 'managers hardly know what kind of behaviour (besides cooperation) could help in assuring better performance' (Das & Teng, 2001, p.262).

Due to the weaknesses of control mechanisms mentioned above, some scholars such claim that control itself is not enough to ensure the successful performance of a PPP, arguing that trust is also necessary (Warsen et al., 2018, p.1165). The following section examines trust and outlines how it can be used to improve PPP performance.

2.3 Trust

'Trust is often isolated as one of the most important factors to influence the course of interorganizational relations', making it unmissable in successful PPPs (Williams, 2002, p.111). Edelenbos & Eshuis (2012) define trust as 'a positive expectation that other actors refrain from opportunistic behaviour even when they have the opportunity to do so' (p. 652). Though opportunistic behaviour can be greatly disincentivized through the control mechanisms listed in section 2.2, contracts are not able to cover all details of the large projects, ensuring that trust remains essential.

Das and Teng (2001), identified two forms of trust present in PPPs, namely goodwill trust and competence trust. Research by other scholars such as Edelenbos & Eshuis (2012) and Noteboom et al. (2002) also found these two phenomena, but classified them as sources of trust rather than types of trust. This research holds that goodwill trust and competence trust are two forms of trust, rather than sources of trust, to make a distinction with the boundary spanning activities that can be used to foster both of types of trust. Goodwill trust is defined as 'the expectation that some others in our social relationships have moral obligations and responsibility to demonstrate a special concern for others interests above their own' (Das & Teng, 2001, p.255). Goodwill trust therefore refers to the trust in one's intentions. Das and Teng (2001), outline three overarching ways that this form of trust can be bolstered. Firstly, by aligning values and establishing mutual interests. Secondly, by introducing accepted mechanisms for dispute resolution. Thirdly, by fostering trust between specific individuals. Key characteristics associated with individuals that receive goodwill trust from others are responsibility, dependability, and integrity (Das & Teng, 2001, p.255).

Competence trust refers to the belief that the partner holds sufficient experience and/or knowledge on the relevant topic (Das & Teng, 2001; Edelenbos & Eshuis, 2012).

Competence can be built in two ways (Das & Teng, 2001). Firstly, the reputation of the individual or organization can be investigated. This can either be done by looking into the partners' previous work, or if partners work in the same network, individuals may ask mutual associates for referrals. Secondly, competence trust can be built during the partnership when the individual/organization demonstrates their skills in relevant areas. Ability and expertise are key characteristics associated with individuals and organizations that are trusted for their competence (Das & Teng, 2001, p.255).

Moreover, it is important to highlight that trust can occur on different levels. Das and Teng (2001) explain that 'trust is a multilevel phenomenon that exists at the personal, organizational, interorganizational, and even international level' (p.254). For example, it is possible for individuals to have limited trust in the abilities of their partners, though the organizations continue working together because they trust in the competency of the organization as a whole. Moreover, it should be noted that trust at higher levels (like interorganizational trust) 'lessen concerns about opportunistic behaviour', which helps trust at lower levels (like the individual level) (Das & Teng, 2001, p. 255).

2.3.1 Benefits of Trust and Trust Mechanisms for PPP Performance

In their literature review, Van Meerkerk & Edelenbos (2014) found that previous studies reveal 'that trust has a positive influence on governance network performance' (p.13). They highlight four key reasons that trust improves the performance of governance networks.

Firstly, it reduces risk by making the actions of others more predictable. A more predictable and trusting relationship makes stakeholders less inclined 'to guard against opportunistic behaviour', which translates to less extensive control mechanisms and reduced transaction costs, allowing the PPP to direct its resources towards tasks that directly work towards its objective (Zaheer et al, 1998, p.144). The interaction between trust and control mechanisms will be discussed extensively in the following section. Secondly, high trust amongst stakeholders increases the probability that parties will invest resources into the cooperation (Edelenbos & Klijn, 2007, p.32). In other words, trust partners are more willing to take risks for the benefit of the project. As partners open their resources to the PPP, synergy becomes more likely to occur. Synergy between partners is one of the primary reasons partners engage in PPPs (as explained in the previous section). Thirdly, a trusting relationship stimulates learning by increasing the exchange of information. Similarly, Edelenbos and Klijn (2007) found that trust encourages innovation, noting that 'in situations where trust is present confidence in other actors will be greater and the flow of information and willingness to exchange information is likely to be greater' (p.6). A more efficient flow of information, means a better sharing of resources and the creation of a synergetic relationship that improves the performance of the PPP. Fourthly, it stimulates innovation by facilitating cooperation and reducing the need for hierarchical coordination, a finding also supported by Edelenbos and Klijn (2007). Edelenbosch and Eshuis (2012) noted that the complexities in modern society 'can no longer be managed through hierarchical power', emphasising the benefits of moving away from a strictly hierarchical structure and towards a trusting horizontal relationship (p.651). Because of the reduction of red tape and increased freedom for partners to act PPPs are made more efficient.

Furthermore, high trust makes a relationship more robust. A trusting partnership is flexible, which is important for the performance of PPPs which often contain and encounter many complexities and uncertainties (Abdullah & Khadaroo, 2020, p.3; Warsen et al., 2019, p.376). Moreover, trusting partners are more inclined to give each other the benefit of the doubt, which often works to ease conflict resolution within the partnership (Zaheer et al, 1998, p.145). Efficient conflict resolution mechanisms are especially important in long-term PPPs where conflicts are bound to emerge and can escalate into destructive and expensive

affairs if they are allowed to expand. For all the reasons listed above, the trust-building activities of boundary spanners are central for the performance of PPPs.

2.3.2 Weaknesses of Trust and Trust Mechanisms on PPP Performance

Despite the various ways trust benefits PPP performance, it does not guarantee success. Firstly, and perhaps most importantly, it should be stressed that trust does not eliminate the possibility for opportunistic behaviour to occur. In fact, there is always the possibility that trust can be misused/abused by one of the partners. Edelenbos and Klijn (2007) note that 'there is a thin line between a trusting and a gullible person' (p.33). Though trust reduces risk by allowing actors to make assumptions of other's behaviour, these assumptions are ultimately based on limited information. For this reason 'risk seems to be an unavoidable feature of trust' (Bachmann 2011, p.343). Therefore, the presence of trust in a PPP does not guarantee that opportunistic behaviour that jeopardises the project will not arise.

Secondly, trust is fragile. It takes time to develop trust, and is something that must be fostered. Warsen et al. (2018) note that trust needs to be 'actively developed and maintained through interaction', without which it would easily diminish (p.1168). It is for this reason that many boundary spanning activities are geared towards increasing trust between partners. There are therefore costs associated with the creation and maintenance of a trusting relationship, often time and energy, that partners redirect from the direct goals of the project. Furthermore, if an actor feels the activities of trust creation are not genuine they may backfire and be detrimental to the relationship. It is for this reason that some managers prefer to refer to 'trust-sensitive management rather than trust management' (Edelenbos and Klijn, 2007, p.35).

Thirdly, an overly trusting individual/organization may rely too much on the (perceived) actions and capabilities of others (Edelenbos and Klijn, 2007, p.33). This opens the door for opportunistic behaviour and makes the partnership less flexible as certain individuals become seen as irreplaceable for the partnership's success (of course if the assumed expertise is present and unique these feelings are warranted). Moreover, an overreliance on a partner's capabilities may lead to the emergence of groupthink within the partnership, limiting its ability to see and capitalize on new opportunities.

The limitations described above mean that PPPs cannot solely rely on trust for success, however, a number of the weaknesses can be compensated through the implementation of

control mechanisms. The interplay between these two also creates new benefits and risks for PPP performance, as will be expanded upon below.

2.4 Interplay Between Trust and Control

2.4.1 The Mutually Exclusive Perspective

There remains some debate as to how trust and control mechanisms interact within public-private partnerships. Some scholars hold that the two are mutually exclusive and part of a zero-sum game. Noteboom et al. (2002), identified 'a long tradition of management thought (that) conceptualizes trust and control as opposing alternatives', though there exists 'no consistent empirical evidence that trust and () control indeed substitute for each other' (p.3). Edelenbos and Eshuis (2012), categorized this perspective as interferential coevolution, defining it as 'a mutually weakening relationship between trust and control' (p.654). In this perspective, control mechanisms are imposed when there is low trust between partners. Das and Teng (2001) note that output control mechanisms become especially important in such situations. Though control mechanisms such as objectives, performance measures, and budgeting can be very beneficial, they can also further deteriorate trust. An emphasis on output control mechanisms inherently puts the partner's goodwill in question, and may 'create anxieties that could erode competence trust' (Das & Teng, p.2012, 264). However, it should be noted that other scholars have concluded the opposite. For example, Warsen et al. (2018), concluded that the 'expectation that trust and a strict application of sanctions are incompatible does not hold' (p.385). Perrone et al. (2003) go even further arguing that 'agents involved interorganizational relationships need to be relatively free to be trusted' because it allows them to demonstrate their goodwill (p.436). Additionally, stringent output control measures may limit a partner's ability to perform optimally, which not only reduces their contribution to the success of the project (as described in section 2.2.2), but also deteriorates competence trust within the PPP. During interferential coevolution, control mechanisms are reduced when trust between partners rises, highlighting that this perspective sees 'trust and control as substitutes' (Edelenbos & Eshuis, 2012, p.654).

2.4.2 The Symbiotic Perspective

Though there is some evidence that trust and control are mutually exclusive in PPPs there is also ample evidence that suggests the opposite is true. Namely, a symbiotic coevolution may occur, where trust and control interact in a 'mutually reinforcing relationship' (Edelenbos & Eshuis, 2012, p.654; Warsen et al., 2018, p.385). In this perspective control mechanisms

can increase competence trust as it provides clear performance measures which helps bolster a track record of the partner's capabilities (Das & Teng, 2001, p.263). As the partner continues to produce outcomes that meet established expectations 'trusting attitudes are reinforced' (Williams, 2002, p.112). Such a track record is especially important for individuals that perform boundary spanning activities, because 'renown, reputation, and status in powerful arenas' plays an important role in the way they are received by other organisations and by extension the success of their boundary spanning activities (van Meerkerk & Edelenbos, 2018, p.5).

Furthermore, well implemented control mechanisms can portray 'an image of objectivity, neutrality and rigour to bolster trust among partners' (Abdullah & Khadaroo, 2020, p.4.). Additionally, informal control mechanisms that create shared meanings, goals, and values work to increase partner's intentional trust. Das and Teng (2001) note that 'a sense of confidence in each other's goodwill is implied in social control' (p.264). Goodwill trust between partners is further boosted through joint dispute resolution, highlighting the importance that such control mechanisms exist within the PPP (Das & Teng, 2001, p.273).

It is important to realise that the way trust and control interact differs in each PPP, and that reality often lies somewhere between the two extremes outlined above. Edelenbos and Eshuis (2012), argue that 'the interplay between trust and control appears as a fluctuating, sometimes dynamic, or even erratic form of coevolution' (p.688). PPPs contain complex relationships where both virtuous or vicious circles of may emerge and influence trust (Warsen et al, 2018, p.4). Therefore, the emphasis on either trust or control may shift over time.

Management of the volatile relationship between trust and control forms a central aspect of the boundary spanners tasks. Successful boundary spanners ensure both mechanisms are effectively implemented in the partnership, recognizing that 'both are coordination mechanisms that have the objectives of improving performance, managing uncertainties and achieving success in competitive and complex business environments' (Warsen et al., 2018, p.1). Furthermore, Edelenbos and Eshuis (2012), observe that 'rather than switching from trust to control, the art is to subtly switch from an emphasis on trust to an emphasis on control and vice versa, depending on what is actually required in the specific context and with full awareness of the fact that one is actually working on both simultaneously' (p.670). Some of the different trust-building activities boundary spanners can engage in are discussed in the following section.

2.5 Boundary Spanners and Boundary Spanning Activities

As public private partnerships have gained in prominence, boundary spanners have become important nodes that facilitate interaction between the different partners. Van Meerkerk & Edelenbos (2014) describe boundary spanners as actors that ‘manage the interface between organizations and their environment’ (p.9). This definition does not specify what title the boundary spanner holds in the PPP, this could be a civil servant, a private party involved in the collaboration, a third party, etc. Therefore, this thesis primarily focuses on boundary spanning activities, rather than boundary spanners.

In public private partnerships boundary spanners become ‘intimately involved in the day-to-day relationship-building activities and operations within the developing partnership’ (Noble & Jones, 2006, p.897). As ‘cultural brokers’ boundary spanners manage the different perceptions, competencies, and resources of stakeholders by making ‘a real effort to empathize with, and respect others’ values and perspectives’ (Williams, 2002, p.110). Søderberg and Romani (2017) observed different strategies boundary spanners engage in to facilitate the partnership; aligning boundaries and forging common ground (p.243)². Furthermore, this thesis views networking and efforts to bring together partners from different organizations as another boundary spanning strategy. Specific boundary spanning activities identified by other scholars can be sorted broadly into these three categories.

Boundary spanning strategies	Boundary spanning activities
Networking	<ul style="list-style-type: none"> • Bringing together different partners • Sustaining interactions between partners
Aligning boundaries	<ul style="list-style-type: none"> • Defining roles • Sensitizing partners to one another • Clarifying responsibilities of partners • Clarifying contributions of partners • Allocating risk
Forging common ground	<ul style="list-style-type: none"> • Active listening to identify (possibilities for) common goals • Installing social control mechanisms to foster common values • Installing formal control mechanisms to ensure commitment to the common goal

² A third boundary spanning strategy that Søderberg and Romani (2017) identified was ‘discovering new frontiers’. However, this thesis holds that (relevant) behaviours that stimulate innovation are better classified as boundary spanning activities, which it has been incorporated as such, rather and a strategy.

2.5.1 Networking

Networking represents the a central boundary spanning strategy that boundary spanners engage in. Networking lies at the core of boundary spanning activities, because in their very nature they seek to bring together and interface between two different organizations (or within the hierarchy of one organisation). Existing networks are an important resource that partners can bring to the table, especially in an international context where ‘foreign boundary spanners must rely on their local counterpart’s established ties with indigenous community and governmental authorities’ (Luo, 2001, p.184). Broadly speaking, networking activities consist of introducing partners from different organizations to one another, and looking for where cooperation may be mutually beneficial. Potential partners may be introduced to one another in a personal setting or at large scale events crafted specifically for this purpose. Furthermore boundary spanners ‘safeguard that partners stay connected, use their communication channels, sustain their interactions, and develop common identities’ to foster and expand the PPP’s networks (van Meerkerk & Edelenbos, 2018, p.146).

2.5.2 Aligning Boundaries

Once partners from different organizations have been brought together to work on a project, it becomes important to manage the boundaries between them. Acknowledging and respecting differences is an important part of economic exchanges and partnerships. This is especially true in PPPs, where the differences between partners can be profound. When boundaries are successfully aligned partners can harness each other’s resources to create a unique synergetic relationship that benefits the PPP’s performance. However, when the boundaries between partners is poorly constructed it can be the source of conflicts that are detrimental to the partnerships’ performance. It is therefore unsurprising that a number of boundary spanning activities exist to organize boundaries in such a way as to reap the benefits of synergy and avoid the pitfalls of conflict. These are explored below.

A crucial boundary spanning activity is clearly defining and clarifying the boundaries between the different organizations involved in the partnership. Clear boundaries, referring to the delineation of each partners’ tasks, help create a feeling of safety within the organizations as their autonomy is appreciated/acknowledged and the roles within the network defined (Søderberg & Romani, 2017, p.243). These feelings contribute to the creation of goodwill trust within the partnership. Moreover, clear roles within the network helps to streamline communication between partners which is beneficial to the PPP’s performance. Williams (2002), found that boundary spanners generally prefer to incorporate actors with a high degree of freedom into the network (p.120). Ideally, the partner’s task within the PPP should

be defined, but the way they achieve this task (or fulfil their contribution to the project) should largely be left to them.³ This way there is some guarantee that the tasks performed contribute to the broader common goal of the PPP, but actors are given freedom to complete these tasks in a manner most efficient to them, increasing both the performance of the PPP and stimulating goodwill trust and competence trust within the PPP.

Defining boundaries also involves the allocation of risk between the partners, a crucial aspect of PPPs (as explained in a previous chapter). Within PPPs it is standard procedure for the distribution of risks to be done contractually. In DBFM(O) contracts the risk is typically transferred from the public partner to the private one (Warsen et al, 2019, p.376). The implementation of a clear reporting structure helps facilitate supervision and monitoring of activities done within the network, though it is important to determine the people that hold authority within the PPP before assessment takes place (Das & Teng, 2001, p.274). Defining and allocating risks enhances a partnership's performance because it makes partners accountable, which disincentivises opportunistic behaviour.

Aligning boundaries also involves activities that seek to sensitize the different organizations to one another. Søderberg & Romani (2017), refer to this as reflecting, and argue that it can 'foster an understanding of similarities and differences, eventually developing an intergroup respect that paves the way for collaborative work' (p.243). In many ways, this sensitizing process is one of the first steps towards building trust within a partnership and is therefore important for the PPP's success, especially in long-term projects.

Another boundary spanning activity that falls under the strategy of aligning boundaries is the establishment of hierarchy within the PPP. Das and Teng (2001), state that generally authority needs to be determined before behavioural control mechanisms can be used to assess performance (p.274.). Though they do note that the more the PPP takes on the form of a horizontal hierarchy, the less important this becomes. Nonetheless, establishing a form of hierarchy is important for the PPP's performance because it effects the reporting structure and the ways sanctions are enforced.

³ Of course, large corporations involved may be able to train/educate their staff in a way to standardize behaviour, but for many smaller firms this is not an option, especially in the Hindon project where many professionals involved in PPPs work in small companies or as consultants

2.5.3 Forging Common Ground

Forging common ground between partners is another strategy boundary spanners engage in. Sørderberg & Romani (2017), argue that through creating personal linkages and building trust partners from different organisations can be motivated to go beyond their differences and align their goals and interests to work towards a common objective (p.243). It is of benefit to the PPP's performance that all partners are fully invested in the project, and work towards a shared goal. The boundary spanner's arsenal contains several tools that can be used when implementing this strategy.

Perhaps the most important tool for forging a common goal within a PPP is active listening, to be able to understand and match the various incentives that drives the different partners towards cooperation. Everyone wants something out of the partnership, and it is the boundary spanner's task to be an 'active listener' so that they can craft a goal that encapsulates each partners interests (or at least addresses them throughout the project's life span) (Van Meerkerk & Edelenbos, 2014, p.9).

Boundary spanning activities within this strategy also include solidifying the roles and responsibilities of stakeholders from different organizations in contractual agreements. Such control mechanisms are important throughout the lifecycle of PPPs as roles must be divided, goals clearly determined, and responsibility allocated (Williams, 2002, p.118). By having a good understanding of the stakeholders involved boundary spanners can effectively craft contracts that are comprehensive but also flexible. These contracts should define the common goals of the project, clearly allocate risk between the stakeholders, and, clearly state what sanctions can be taken when stakeholders do not uphold their obligations (Warsen, et al, 2019, p.376).

One notable boundary spanning activity that promotes common ground between partners is the installation of social control mechanisms (informal control). 'Social control (mechanisms) aim at reducing the discrepancies in goal preferences of organizational members through the establishment of common culture and values' (Das & Teng, 2001, p.262). Such mechanisms are not comprised of a specific set of activities, but rather stem from frequent meetings, culture blending, and socialization. In this way social control is often decentralized and of an evolving nature (Das & Teng, 2001, p.262). However, it is important to note that social control mechanisms can also take on a more elaborate form as rituals and/or are sometimes used to foster shared values and generate personal attachments. Some scholars have found a positive relationship between social control and goodwill trust in partnerships

(Aulakh et al., 1996 as in Das & Teng, 2001, p.264). Moreover, van Meerkerk and Edelenbos (2018) argue that the personal attachment helps partners from different organizations overcome cultural differences and differences in managerial styles within the PPP, significantly contributing its performance (p.187).

By providing a clear reporting structure and contractually establishing possibilities for joint dispute resolution boundary spanners can stimulate the partners' goodwill trust. This is important because it comforts partners that others will not engage in opportunistic behaviour (Edelenbos & Eshuis, 2012, p.652; Das & Teng, 2001, p.255). Moreover, high goodwill trust between partners can reduce suspicions around processes and procedures used within the partnership, which is essential for the implementation and acceptance of control mechanisms. This is especially true with regards to output control mechanisms, such as the iron triangle criteria used to measure the PPP's performance, as they will not be accepted and/or not carry the intended weight if partners lack trust in them. For this reason, the ways output control is measured and the established conflict resolution mechanisms are 'important for stability and order' within the PPP (Eshuis & van Woerkum, 2003, p.386).

2. 6 Conceptual Framework

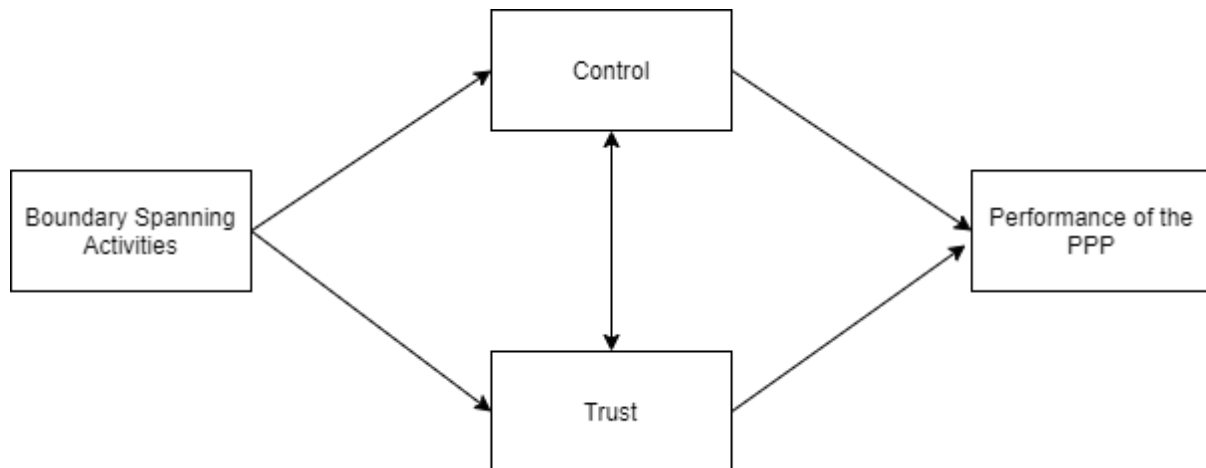


Figure 1: Conceptual Model

Using the theoretical framework above, a conceptual model has been created. Figure 1 illustrates the relationships the theoretical concepts examined in this chapter have with one another. The many boundary spanning activities can be implemented within a PPP directly affect how trust and control are experienced by its members. In turn, the trust and control influence the partnership's performance. Boundary spanning activities represent the independent variable that can be divided into three overarching strategies (networking, aligning goals, managing boundaries). Trust and control mechanisms form mediating variables, and have a reciprocal relationship with each other⁴. The performance of the PPP (measured though the iron triangle criteria), is influenced by the ways trust and control are experienced by the partners involved.

⁴ With reciprocal relationships it is hard to pinpoint the direction of influence between the two variables, this is also the case for the relationship between trust and control, as explained in section 2.4.

3 Methods

In the previous chapter various concepts pertinent to the research question were introduced and analysed. Before delving into the case study to try and answer the research question it is important that the methods for data collection and data analysis are explained. In the sections below, the research strategy, the research design (with the various methods of data collection), and the operationalization of the gathered data will be outlined.

3.1 Research Strategy

To answer the research question this thesis conducted a case study. Yin (2003), describes case studies as 'an empirical inquiry that investigates a contemporary phenomenon within its real-life context' (p.13). As trust and control are concepts that can be difficult to quantify and compare between different contexts, it may be preferable to examine their roles in a single context. Such an approach is supported by scholarly articles that suggest case studies are a suitable research strategy when 'the boundaries between phenomenon and context are not clearly evident' (Yin, 2003, p.13). Moreover, a case study can incorporate different forms of data collection, which is important in qualitative research where 'a confluence of evidence () breeds credibility' (Eisner, 1991, p.110, as cited in Bowen, 2009). The different forms of data collection used in this thesis are outlined in section 3.2.

The Hindon projects were selected as a case study for four major reasons. Firstly, as a long-term infrastructure project where various private and public partners cooperate and share in the risks, costs, and benefits of producing a common goal, the Hindon projects fit the definition of a PPP as outlined in the theoretical framework very well. Secondly, the case study is particularly interesting because it is an international PPP. This adds a new dimension to the boundary spanning activities as they seek to span both organizational and cultural boundaries. Moreover, in the case study, boundary spanning activities not only occurred between different organizations but between different hierarchical levels within these organizations. Thirdly, the Hindon projects are part of a larger national program to clean the Ganges river, arguably making it a pilot project with the potential to be upscaled and expanded in the years to come. An in depth analysis of the ways boundary spanning activities influence trust and control to benefit the PPP's performance can therefore be of benefit for future projects. Fourthly, convenience and access internal documents and contracts of the PPP played a role in its selection. The researcher had access to the document, the partners involved, and some of the meetings held, which allowed for a

thorough analysis.⁵ Access to a myriad of data was vital for ensuring research strategy of conducting a case study achieved its primary benefit, namely, providing a 'detailed and intensive analysis of a single case' (Bryman, 2016, p.66). The different modes of data collection will be discussed in the following section.

3.2 Research Design

As outlined in the previous section, case studies allow different sources of data to be combined to draw conclusions. This triangulation of data is especially important in qualitative research where the 'researcher is expected to draw upon multiple (at least two) sources of evidence; that is, to seek convergence and corroboration through the use of different data sources and methods' (Bowen, 2009, p.28). Therefore, this thesis conducted a case study that incorporated three different forms of data collection; (semi-structured) interviews, document analysis, and observations made during meetings of the PPP. The different methods, and the benefits they provide the case study, are described below.

3.2.1 Interviews

Interviews form 'one of the most important sources of case study information' (Yin, 2003, p.89). Interviews allow for researchers to ask questions and gather various types of information from the interviewee such as insights into their behaviour, norms, beliefs, and values (Bryson, 2016, p.209). Interviews exist on a spectrum which can be broadly categorized into three progressively less structured groups; structured interviews, semi-structured interviews, and open interviews. On one side of the spectrum are structured interviews, which contain standardized closed-questions that are asked in a fixed order to limit the variation between respondents and increase the ease of which the respondent's answers can be processed (Bryson, 2016, p.210). Similarly, semi-structured interviews contain the same questions for the different interviewees. However, here the questions do not need to be closed and the interviewer has more freedom to deviate from the order of questions to further investigate certain responses/topics as they emerge (Bryson, 2016, p.212). At the other end of the spectrum are open-interviews. Here, neither the questions or order are fixed, making the interview more akin to a conversation. This thesis utilized semi-structured interviews, as they provided the necessary flexibility to thoroughly examine

⁵ The problems/limitations created by the researcher's proximity to the PPP will be discussed in chapter 6.

concepts with unclear boundaries between them, whilst retaining some standardization needed for the reliability of the findings.

Throughout April relevant stakeholders involved with the PPP were invited to conduct semi-structured interviews. These interviews were scheduled throughout May and June, depending on the availability and schedule of the interviewees. Most of the interviews were done via video calls, though when possible the interviews were conducted in-person. Though the different styles of interviewing may have had some influence on the results it was a decision made from necessity, as the Coronavirus restrictions and physical distance posed significant challenges to the interviewing process. It was clearly communicated to the participants that participation was voluntary and their responses kept anonymous. All participants granted written or verbal permission for their responses to be transcribed and used for this thesis, granted their responses remain anonymous. For this reason the transcripts and list of respondents is attached in a separate document, available only to the thesis supervisor. The transcripts were then analysed using deductive coding based on the theoretical framework in chapter 2, the results of which are presented in chapter 4.

3.2.2 Document Analysis

Document analysis is often an important tool used in case studies. It refers to 'a systematic procedure for reviewing or evaluating documents () in order to elicit meaning, gain understanding, and develop empirical knowledge' (Bowen, 2009, p.27). Bowen (2009), examined that documents can serve five purposes within qualitative research. Firstly, they can provide context for the phenomenon being examined. For example, data from documents can be used 'to contextualise data collected during interviews' (Bowen, 2009, p.30). Secondly, documents can be helpful for determining what other types of data collection may be useful. Thirdly, they can provide research data. Fourthly, a series of documents may allow for changes and developments to be tracked. Fifthly, documents can be used to verify findings gained from other sources. For these reasons, document analysis forms a valuable part of the case study, especially in conjunction with the other methods used.

The researcher had access to a wide range of documents produced by the PPP carrying out the Hindon projects. These documents (broadly) take three forms; formal contracts between partners/organizations, informal agreements between partners/organization, documents created to present/pitch the project. It should be noted that these documents had been created without the researcher's intervention, something Bowen (2009) notes is crucial to

conduct an objective document analysis. The various documents that were analysed for the case study are listed in table 3.2.2.

Table 3.2.2: Documents Analysed			
Document Title	Date	Type of document	Partners/signatories
Memorandum of Understanding	14 July 2016	Contractual agreement between the State Government of Uttar Pradesh and the Government of the Netherlands to cooperate in various fields/areas	<ul style="list-style-type: none"> • State Government of Uttar Pradesh • Government of the Netherlands
Programme Development Accord	28 March 2018	Contractual agreement to begin a public-private partnership to clean the Hindon basin	<ul style="list-style-type: none"> • Government of the Netherlands (represented by NLWorks) • Dutch private parties (Gieling Consultancy, Nijhuis Industries)
Partnership Declaration	25 May 2018	Contractual agreement between the State Government of Uttar Pradesh and the Government of the Netherlands to engage in a partnership to develop Waste-to-Wealth projects in the Hindon basin	<ul style="list-style-type: none"> • State Government of Uttar Pradesh • Government of the Netherlands (represented by NLWorks)
Notice Inviting Proposal for Solid Waste Management	5 June 2018	Tender application sent out by the Government of Uttar Pradesh	<ul style="list-style-type: none"> • Government of Uttar Pradesh
Project Proposal	27 July 2018	Project proposal for solid waste management facilities in the Hindon basin	<ul style="list-style-type: none"> • GC International • Trinity Natural Gas • Nijhuis Industries • Government of the Netherlands
Letter of Acceptance	5 November 2018	Document signalling that the Government of Uttar Pradesh approve the construction of Waste to Energy Plants at Ghaziabad and Muzaffarnagar	<ul style="list-style-type: none"> • Government of Uttar Pradesh • GC International • Government of the Netherlands
Certificate of Incorporation	7 August 2019	Registration of a private company in India to carry out work for the PPP	<ul style="list-style-type: none"> • Government of India • GC International
Letter of Intent	n.d.	Declaration of a partnership between the 2030 Water Resources Group	<ul style="list-style-type: none"> • 2030 Water Resources Group

		(World Bank Group) and the Government of the Netherlands	(Hosted by World Bank Group) <ul style="list-style-type: none"> • Government of the Netherlands (Represented by NLWorks)
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3.2.3 Observations During Meetings

The observations made during meetings held by the PPP form another source of data collection for the case study. As a research tool observations are defined as the ‘systematic recording of observable phenomena or behaviour in a natural setting’ (Gorman & Clayton, 2005, p. 40, as cited in Baker, 2006, p.173). Different types of observation exist, but for this thesis only passive observation was conducted. Passive observation (where the researcher is referred to as a ‘complete observer’ or an ‘unobtrusive observer’) entails that the researcher ‘does not participate or interact with insiders to any great extent’ and that their ‘only role is to listen and observe’ (Baker, 2006, p.174). Observing the PPP in operation provided valuable data on how the partners interact with one another, and the ways informal control was implemented. For these reasons the data collected through observations was valuable for the case study. The different meetings that were observed as part of the research are listed in table 3.2.3.⁶

Meeting reference	Date	Brief description of the meeting
Meeting 1	June 2021	Meeting to discuss the progress of the whole project with major stakeholders of the PPP, including high ranking officials from the government of Uttar Pradesh
Meeting 2	June 2021	Meeting to discuss the next steps to be taken for the Ghaziabad location
Meeting 3	July 2021	Meeting to report the progress on the Ghaziabad location

⁶ Note that the participants of these meetings has purposefully been left out to protect their privacy. Furthermore, it was agreed with the PPP that the exact contents of the meetings and topics discussed be kept confidential, as this could impact the projects and the PPP’s strategy if made public.

3.3 Operationalizing

Boundary spanning activities were be measured in two ways. Firstly, an investigation was done to determine if the boundary spanning activities outlined in the theoretical framework are present in the PPP or not. Secondly, boundary spanners within the PPP were be identified. When present, the activities they perform were be analysed to determine if they may also be considered boundary spanning activities (that were not defined in section 2.5).

The influence of boundary spanning activities on trust and control in the PPP was analysed based on the interpretations and experiences of the various partners that participated in this research. The presence of formal control mechanisms was measured through document analysis, as their presence was often observable. However, to determine the presence of informal control observations made by the researcher and experiences of the participants were particularly important. In contrast the presence of trust within the partnership was primarily done through observations and information gathered through interviews.

The impact of trust and control on the performance of the PPP's performance was measured using the 'iron triangle' criteria introduced by Barnes (1988) and examined in section 2.1.3. For all the concepts that are being analysed in this qualitative analysis, the theoretical framework takes a leading role identifying the various phenomena and interactions between them.

3.4 Validity and Reliability

For research to be useful it must be both valid and reliable. Bryson (2016) defines research validity as the 'integrity of the conclusions that are generated from a piece of research' (p.47). Though various types of validity have been classified, two of are of particular importance to this research; internal validity and external validity. Internal validity is closely connected to the issue of causality between different phenomena, namely, how can one be sure that the measured/observed effect on the dependent variable is attributable to the independent variable, and not due to an external (uncontrolled) source (Bryson, 2016, p.47). In an attempt safeguard the validity of its conclusions this thesis triangulates the data from three different data collection methods. However, it should be noted that some scholars argue that case studies prevent complete certainty of a causal relationship between phenomena because 'a case study involves an inference every time an event cannot be directly observed' (Yin, 2003, p.36). In contrast, 'external validity is concerned with the question of whether the results of a study can be generalized beyond the specific research context' (Bryson, 2016, p.47). Though the conclusions of this thesis are certainly useful for future analysis of other international PPPs, its uniqueness poses certain challenges to its external validity. Moreover, the small sample size of interviewees (10) further limits the external validity (though it should be noted that most of the stakeholders of the PPP were interviewed, bolstering the internal validity of this research). Limited external validity is not exclusive to this research, as scholars have noted that it is 'a major barrier for conducting case studies' as 'critics typically state that single cases offer a poor basis for generalizing' (Yin, 2003, p.37). Nonetheless, the in-depth analysis of the Hindon projects is valuable for comparable projects, especially since there are possibilities that more will appear throughout India in the years to come.

The reliability of a study refers to the consistency with which concepts are measured (Bryson, 2016, p.169). In essence, the study should be replicable by a later researcher who should in turn 'arrive at the same findings and conclusions' (Yin, 2003, p.37). Replicability is inherently difficult with qualitative research, especially in case studies of ongoing phenomena. Many factors such as the time, setting, the researcher, and progress of the project all influence the answers respondents gave. To limit the impact on the reliability and validity of the research, an extensive theoretical framework and thorough explanation of the methods used to conduct the research have been provided. Nonetheless, the reliability of this study remains a challenge, as will be further discussed in section 6.1.

4 Results

4.1 Overview of the Public-Private Partnership

4.1.1 Public-Private Partnerships in India

The rising popularity of public-private partnerships is not limited to Europe and North America. Over the past decades PPPs have also 'emerged as the favoured model of project execution in India, especially in infrastructure, health and education' (Datta, 2009, p.73). Since the mid-2000s the Indian government has sought to address the lacking and deteriorating infrastructure throughout the country. In the period 2006-2011 the government almost doubled its infrastructure spending, from 5% to 9% of GDP (Datta, 2009, p.74). A trend that has continued. Collaborating with private parties to realize its ambitious infrastructure plans has brought in new resources that the government did not have access to, whilst allowing it to maintain control over the projects. The importance of such private resources is made clear in the Indian government's 11th Five Year Plan, where it states that 'public private partnerships must aim at bringing private resources into public projects, not public resources into private projects' (Planning Commission Government of India, 2007, p.256). Moreover, PPPs allow regional governments and municipalities to engage in large projects that the central government would likely be unable to coordinate because of the sheer number of planned projects throughout the country.

From the perspective of private companies, the scale and number of infrastructure projects throughout India provide interesting opportunities to expand their business. The largely unsuccessful privatization of Indian water and sanitation infrastructure in the 1980s and 1990s also worked to spur on the government's adoption of PPPs throughout the country (Datta, 2009, p.76). Moreover, various international development agencies such as the World Bank, the Asian Development Bank, and the United Nations Development Project view PPPs as 'central to their development strategy in India' (Datta, 2009, p.75). For the reasons listed above, the case study of this thesis therefore reflects many aspects of the Indian governments use of PPPs for the realization of its water and sanitation infrastructure. Interestingly, a central public partner in the Hindon projects analysed in this thesis previously had a career at the World Bank, possibly reaffirming that organization's admiration for PPPs in developing countries.

4.1.2 The Program: National Mission for Clean Ganga

To understand how the Hindon projects came to be and what role they play in the wider international corporation between the Government of India and the Government of the Netherlands it is necessary to be aware of the broader (national) program that exists.

In President Narendra Modi's 2014 election campaign, the cleaning of India's most holy river, the Ganges, was a reoccurring topic, and cumulated in the launch of the National Mission for Clean Ganga. The project is of great importance not only because of the river's religious significance, but also for practical reasons, as 37 percent of India's population live along the heavily polluted 2,525-kilometre-long river (Feasibility Report, 2021). President Modi's National Mission for Clean Ganga is not the first of its kind, as former Prime Ministers Rajiv Gandhi and Manmohan Singh both led similar plans. However, these were largely unsuccessful.

Over the past decade the Netherlands and India have increasingly sought cooperation in the field of water infrastructure and agriculture. This intensified cooperation began with former Dutch Prime Minister Balkenende, who declared that India, China, and Russia were key priorities for Dutch foreign policy. The current Prime Minister, Mark Rutte, continued this foreign policy approach and visited India in 2015, where he met the President Modi. This seems to be the start of intensified relations between the two countries, as in 2016 a Memorandum of Understanding (MoU) was signed to 'improve collaboration for mutual benefit'. Thereafter, Modi visited the Netherlands in 2017 to celebrate the 70th anniversary of Indian-Dutch relations. The following year, Rutte visited India again, this time with the aim of promoting Dutch business interests and showing India the water management and agriculture expertise that the Netherlands has. Therefore, the Dutch delegation of 2018 contained the Minister of Infrastructure and Water Management, the Minister of Agriculture, Nature and Food Quality, the Minister for Foreign Trade and Development Cooperation, the Minister for Medical Care, and the Mayor of the city of The Hague. Additionally, these government officials were accompanied by over 130 companies and institutions and over 200 trade representatives, many of which belonged to the water and agri-food sector. The national trade mission outlined above is of importance to the Hindon project case study for two reasons. Firstly, it emphasized the desire of both national governments to cooperate in various areas. Secondly, it was a major networking event, where various Dutch and Indian governmental agencies and private partners were introduced to one another. The effect of this boundary spanning activity is clear, as part of the delegation NLWorks (a prominent partner in the PPP) managed to introduce itself to Indian stakeholders, laying the foundation

for the project to grow. It is crucial to conceptualize the Hindon project as part of a larger program that has different hierarchical levels ranging from local contractors to national governments.

Another key result of the 2018 meeting was that in May of the same year the Government of Uttar Pradesh (GoUP) and the Kingdom of the Netherlands signed a partnership declaration that formalized cooperation, provided a mandate, and determined the form cooperation would take. Notably, the declaration states that the countries will engage in a 'collaboration in the fields of solid waste management, water management, sewage and effluent treatment, governance structures, and other areas of common interest' (Partnership Declaration, 2018, p.1). Moreover, the agreement laid the foundation for international PPPs to develop as it incorporated not only the relevant departments of GoUP and the Dutch government, but also 'private sector parties' (Partnership Declaration, 2018, p.1). The Hindon projects (in Muzaffarnagar and Ghaziabad) analysed in this thesis are briefly described below for context.

4.1.2.1 Muzaffarnagar Recycling Facility

The proposed Muzaffarnagar Recycling Facility (MRF) is to be built in the city of Muzaffarnagar to process waste from an existing landfill and directly from the city and paper mills in the surrounding area. The current landfill is about 200,000m³-250,000m³ and growing rapidly as the city of Muzaffarnagar collects about 200 tons of waste per day (Feasibility Report, 2021, p.22). The MRF will recycle various materials like metals and plastics, and transform organic materials into compost for agricultural purposes. To make the facility economically viable, the raw materials obtained through the recycling process will be sold. Likewise, organic materials are to be composted and sold. The location where the facility is to be built already houses a waste processing plant, however, despite only being built in 2011 with an intended lifespan of 30 years it is no longer (fully) operational (Feasibility Report, 2021, p.16). The estimated cost of the project is €6,084,000, and expected to be recovered in 6 years, after which the facility will generate a profit (Feasibility Report, 2021, p.5).

4.1.2.2 Ghaziabad Waste to Value Facility

The proposed Ghaziabad Waste to Value Facility (GWVF) is to be built in the city of Ghaziabad to process the solid waste from the city's large landfill. Much like the facility in Muzaffarnagar it will be a recycling plant. However, unlike the MRF, the GWVF will also contain an incinerator. The economic viability of the facility stems from its ability to sell the processed raw materials obtained through the recycling process, and sell the electricity (the

output of which is expected to be 30MW) to the city's electrical grid (Feasibility Report, 2020, p.22). The estimated costs for the GWVF is €119,061,000, which will be recovered in the 8th year of the plant's operation, after which it will generate a profit (Feasibility Report, 2020, p.3).

4.2 Interview Coding Results

Though the results section is organized according to the theoretical framework, special attention to the results from the interviews is warranted to provide clarity to the reader. Between the 1st of June and the 17th of June, 10 interviews were conducted with individuals from public and private organizations involved in the Hindon projects. The interviews ranged from 30-80 minutes, 8 were conducted via video call and 2 were conducted in-person. These interviews were then transcribed and coded as per the operationalizing scheme, the results of coding are listed in the tables below.⁷ These results, along with relevant quotes, have been incorporated into the following sections.

Code Group	Times mentioned
Control	99
Trust	54
Boundary spanning activities	107
Public Private Partnership Performance	35

Code	Times mentioned	Code Groups
Formal control	93	Control
Boundary spanning activities	41	Boundary spanning activities
Pubic Private Partnership Performance	35	Public Private Partnership Performance
Forging common ground	26	Boundary spanning activities
Managing boundaries	24	Boundary spanning activities
Trust in competencies	20	Trust
Trust in intentions	14	Trust
Importance of trust	10	Trust
Discovering new frontiers	9	Boundary spanning activities
Cultural differences	7	Boundary spanning activities
Benefits of trust	6	Trust
Importance of control	4	Control
Informal control	2	Control
Shortcomings of trust	2	Trust
Trust in the partnership	2	Trust

⁷ For privacy concerns the transcripts are available only to the thesis supervisor.

4.3 Boundary Spanning Activities

4.3.1 Networking

Throughout the interviews respondents emphasised that boundary spanning activities were not confined to a single partner or organisation, indicating that all partners took up the role of boundary spanner. In particular, networking was seen as a common task that occurred at all levels of the PPP. A prominent public sector partner noted that ‘everyone does their own scoping, so GC has its own network, the embassy has its own network’ (Respondent 10). Interestingly, various partners referenced the importance of other partners’ networks. One private partner remarked that the Indian Government has ‘a Rolodex with contacts and we were not in it (...) yeah we were just a small company’ (Respondent 5). This partner went on to stress that the Dutch Consulate in Lucknow provided unique and valuable networking possibilities, especially because the Honorary Consul was the only foreign representative within Uttar Pradesh. Moreover, the Consulate was very familiar with Uttar Pradesh and the Governmental structure of India, an important asset when navigating its hierarchy and cultural differences. Similarly, NLWorks brings access to a network of high-level partners. This was emphasized by a senior programme manager at NLWorks who explained ‘we facilitate public private partnerships at the highest level in the Netherlands and internationally. Highest level means on the level of CEOs and Prime Ministers, Ministers, the King, etc...’ (Respondent 4). In contrast, the public partners provided improved access to other public partners as was acknowledged by all public partners interviewed. A programme manager from NLWorks summarized the overall view on networking within the PPP, stating that ‘all the consortium partners should look for partners and evaluate if we have the right players on board to make it happen’ (Respondent 2).

4.3.2 Aligning Boundaries

Throughout the interviews respondents noted the need to align/determine the boundaries between the various partners of the partnership. Within this boundary spanning strategy two findings were of particular interest. Firstly, for many interviewees ‘the roles were quite clear from the beginning’ (Respondent 7). This is unsurprising as each partner was brought into the partnership because they contributed certain resources. Several respondents referred to contracts and agreements that specified the roles and contribution expected of the partners involved (these contracts will be examined more closely in section 4.4). Moreover, the division of tasks/responsibilities was a way for risks to be allocated between partners.

Secondly, all respondents stressed that as the project progressed the roles and responsibilities of the partners needed to be reevaluated. For example, one interviewee explained that 'expectations and also the roles will change again. Who's in the lead? Who's following? Who's depending on who more right now?' (Respondent 10). Another interviewee noted that partners were constantly 'reaffirming that these are their tasks, and that they are capable of doing these tasks' (Respondent 2). Though one respondent noted that the roles were formally outlined in a yearly planning, he also admitted that realistically a continuous reevaluation was occurring at an informal level because 'you can hardly plan half a year head' (Respondent 4). These two findings indicate that the main boundary spanning activity within this strategy is a continuous re-evaluation of each partner's tasks which leading to contracts being updated when necessary.

4.3.3 Forging Common Ground

Unlike the boundary spanning strategies discussed above, the creation of a common goal seemed to be led by certain partners, though all were certainly involved. A programme manager from NLWorks explained that 'one of the major roles we play as NLWorks is to find where is the common goal for the PPP' (Respondent 2). This sentiment was reflected by a senior programme manager who expanded on how the organization worked to incorporate the different (and sometimes conflicting) interests into a common goal for the partnership. 'What I always try to tell everybody well just say what you want and don't pretend that you're going to do all kinds of things that in the end you will not do. (If) you're not interested or you're not capable just say (so), everybody (has) to tell what is (their) interest. Earn money or contribute to this better world or whatever doesn't matter. And then we make that whole picture together so every contribution adds up to something (...) but they must be realistic. People must be honest and sincere in the beginning and say what they want, and then we will look if they really can deliver' (Respondent 4). As NLWorks was part of the Dutch trade mission led by Rutte and is uniquely suited to deal connect with high-level public and private organisations, it is not entirely unsurprising that NLWorks took up a leading role in forming a common goal.

Though one partner took up a central role in facilitating the creation of a common goal, it is crucial to note that all partners are closely involved in the process as they want the common goal to meet the interests of their own organisation. Respondents from the private parties made it clear that next to the social and environmental benefits, profit was the key motivator. One interviewee stated that 'GC will not work unless it sees profit in the project' (Respondent 1). In contrast, cleaning the Ganges was the primary incentive for the Indian government. A

respondent from the Dutch government explained that ‘the value to the (Indian) government is the environmental impact that we will have once we start doing this for them, which is why they’re giving us the land’ (Respondent 9). Interestingly, the Dutch public partners were situated somewhere in the middle. Their interests were twofold, ‘to facilitate Dutch companies to do business in India’ but also to ‘have an impact on the public sphere’ (Respondent 10). The common goal that was ultimately crafted was formalized in various contracts, as will be examined in the section 4.4.

4.4 Control in the PPP

4.4.1 Formal Control

Throughout the interviews, document analysis, and observations forms of formal control were often referenced by respondents. In particular, the Partnership Declaration (2018) was seen as an important document that laid the basis for the PPP. One of the main private parties explained ‘if there are no government to government contracts, then you’re lost I think. (...) Because that’s the real security’ (Respondent 8). The feelings of security held by the private partners is warranted as document analysis revealed that ‘the objective of (the) MoU is to strengthen the collaboration between the GoUP and Government of the Netherlands on the basis of equivalence and mutual benefit, taking into account the practical needs of the parties’ (MoU, 2016). Moreover, the MoU opened the door for the Hindon project to emerge because it explicitly lists ‘solid waste management’ and ‘water management in terms of water supply, sanitation and governance structures including restoration of water bodies’ as areas of cooperation and public-private partnerships as an encouraged method of cooperation (MoU, 2016). In this sense Indian-Dutch cooperation was stimulated through boundary spanning at the highest national levels.

The PPP also gained security from contracts at the state level. For example, the Partnership Declaration explicitly includes prominent partners, it reads; ‘The working group will be chaired by the Principal Secretary for Urban Development and Clean Ganga of the GoUP. (...) Key players will include the Manager Projects and Operation of Netherlands International Works (Government of NL), CEO of GC international, and other representatives of Dutch government and Dutch/Indian private sector’ (Partnership Declaration, 2018, p.1). Moreover, this document outlined the tasks the various partners were expected to perform for example the GoUP would ‘assist to access available data related above project locations and facilitate partners of the consortium to interact with relevant parties, including officers of

government department and agencies' additionally, 'required land (would) be made available on mutually agreed terms' and 'solid and liquid waste streams will be ensured by the UP State and local authorities' (Partnership Declaration, 2018, p.2). In turn, the contract also outlined the tasks of the Dutch public and private parties. They are expected to create 'Waste-to-Wealth plants... installed and operated based on viable business models without investments from Uttar Pradesh of the Government of India' (Partnership Declaration, 2018, p.2). The responsibilities of the different partners was reiterated (and elaborated) in other contractual agreements like the Letter of Acceptance. At a lower level (non GtG), the roles and objectives within the consortium of private partners was solidified in the Programme Development Accord, for example, GCI was 'responsible for communication with other Dutch and Indian private parties' and NLWorks would 'coordinate public private cooperation (and) engage with public parties' (p.2). Formal contracts therefore played a central role in aligning the boundaries between the various public and private organizations involved in the PPP.

The formal contracts also specified the common goal of the PPP. Though the MoU merely encourages international collaboration in a number of areas, this national goal was referenced in later contracts. The Partnership Declaration builds on the goal of the MoU, explicitly stating the common goal of the PPP; 'the partners hereby confirm their mutual interest to jointly develop a public-private program to clean up Hindon and other parts of Ganga basin, starting with feasibility studies for several bankable Waste-to-Wealth projects in the Hindon river basin' (Partnership Declaration, 2018, p.1). In a separate contract, the private partners of the PPP agree 'to join forces in a programme start-up effort to draw up an effective public-private strategy to contribute to the cleaning up of the Hindon basin in India', reaffirming their commitment to the broader program goal (Programme Development Accord, 2018, p.1). In the Letter of Acceptance, it is clear that the common goal was further refined to 'set up (a) waste to energy plant at Ghaziabad and Muzaffarnagar' (Letter of Acceptance, 2018, p.1). Hereby, both the location and type of facilities to be built were contractually determined. Interestingly, the boundary spanning activity here is the continued refinement of common objectives, to reach a common goal that all partners agree with and is specific enough to be carried out.

It is crucial to note that the contracts and agreements that have been signed are not legally binding. Though there are a few binding conditions, for the most part they have been created in a way that their content can be interpreted in different ways, or legal accountability has been explicitly excluded. For example, one of the main contracts between the various private partners states that 'nothing in this accord shall be construed as creating any legal obligation on the side of the participants' (Programme Development Accord, 2018, p.2). Interestingly,

the formal contracts do provide performance indicators for the PPP to meet, these are presented in section 4.7.

4.4.2 Informal control

Informal control was present within the PPP in two forms; regular meetings between partners and large rituals that included external actors and attention. Throughout the project partners were consistently in close contact through meetings. Interestingly, a contract ensured that 'bi-annual meetings will be held at high level to guide and steer the public-private program development and implementation. Regular meetings will be held at operational level as and when required to ensure swift progress' (Partnership Declaration, 2018, p.2). Observations of both types of meetings revealed that informal control was being exerted in both. At 'meeting 1', a high-level meeting between all the partners, the hierarchy between partners (especially in relation to their position within the broader national programme) was made clear. The procedures were very formal and the Principal Secretary of the GoUP led the meeting (as agreed in the Partnership Declaration). Both the progress of the projects and their expected contribution to the National Mission for Clean Ganges plan were analysed. Hereby, the high-level meetings fostered values of hierarchy and loyalty towards the broader national program.

In contrast, observations made during the regular meetings between the private partners (meetings 2 and 3) revealed that these were far more informal. Partners were cordial and seemed to know each other well. Often, the meetings started with a brief discussion about how things were going in partners' personal lives and how their environment was handling the Corona Crisis. These social cues and activities seemed to bolster the feeling of a team spirit and contribute to a positive atmosphere within the partnership. Behaviour that deviated from the social conventions, such as tardiness or unpreparedness were noted by partners, which worked to strengthen these values. It should be noted that this was also true for the high-level meetings, as one respondent explained his frustrations when a high ranking official 'came in 15 minutes late and had us all waiting and didn't even apologize for the delay' (Respondent 9). That this was not mentioned during the meeting indicates the values of hierarchy mentioned in the previous paragraph are strongly embedded in the PPP.

Rituals and/or ceremonies also formed an important source of informal control. The high-level meetings may be considered ceremonies, with certain rituals/procedures that all partners follow. Similarly, when the Dutch partners visited India events were held that (next to facilitating meetings and networking opportunities) reinforced certain values. Such as

enthusiasm for the common objective and respect for the other partners involved. The most prominent example of a ceremony was the presentation of the Waste to Wealth projects to the Dutch King and high-ranking Indian officials during the Dutch King's visit to India in 2019.

4.5 Trust within the PPP

4.5.1 Competence trust

Competence trust was seen by several respondents as a precursor for participation in the partnership. One interviewee explained that it was standard to 'do a background check on a company, and try to understand where this company is coming from (...) and decide whether they are capable of achieving what you want to do in this project or not' before inviting them into the partnership (Respondent 1). Similarly, another said that before bringing in new partners 'we do a little bit of homework (and) a little bit of fact finding whether this company has a good reputation (and) whether they are doing well in other cities' (Respondent 3). These precursory investigations into the competence of potential partners represent a boundary spanning activity that falls under the networking strategy.

As the interviewees mentioned the abilities of the others involved, it became evident that competence trust existed between the partners. Several private partners praised the public partners' knowledge of the Indian context and their broad Indian network. Similarly, the public partners acknowledged the ability of the private partners. One of the public partners explained that if it were not for the complexities of the Indian context the private partner 'could just build it' (Respondent 10). Others noted the private partners capabilities to build a viable business model and find investments (Respondent 2, Respondent 9). One respondent admired the work ethic of a high-ranking GoUP official that was (previously) involved in the project, noting that it was 'through this person in the government of the state of Uttar Pradesh it made it possible to get the Partnership declaration signed to get these locations' (Respondent 10). This respondent was also adamant that competence trust could be built because 'if you show capability then trust also grows very quickly' (Respondent 10).

4.5.2 Goodwill trust

Throughout the interviews it was clear that all partners viewed the intentions of the others favourably. What stood out most was that, though important in the beginning phases, it was not essential that the intentions of all partners aligned exactly. A public partner explained that 'in the beginning its more about intentions, and when you progress to design and

implementation it moves to capabilities', signalling the importance of goodwill trust in the beginning of the networking phase (Respondent 2). Similarly another interviewee remarked that 'if you feel that the intention is not right, then (cooperation) will be difficult' (Respondent 10). However, the overarching view of the partners was that differing intentions was not negative per se. In fact all respondents saw differing intentions as a natural part of a PPP, and something that could be managed by incorporating it into a common goal. Far more important was openness and transparency about one's intentions. Two remarks that stood out were; 'people must be honest and sincere in the beginning' (Respondent 4). 'If the intention is () not clear not transparent, and you find out later that the intention was something different, then trust is broken very easily' (Respondent 10).

5 Discussion

5.1 Creating a Coalition of the Willing – Networking

One of the unique aspects of the Hindon projects that was revealed throughout the interviews was that all actors engaged in boundary spanning activities. In particular, all partners actively engaged in networking and were expected to bring in their network if they felt it contributed to the common goal of the project. By bringing together public and private networks 'a coalition of the willing' could be formed, which was the starting point of collaboration (Respondent 6). All the partners therefore demonstrated to some degree boundary spanning activities defined by Williams (2010) as they used 'informal networks, links and alliances to build positive relations between all the different parties' (p. 14).

Interestingly, trust played an important role in these networking activities. For example, both public and private partners indicated that they vetted potential partners to ensure they would be capable of realising the contributions expected of them, indicating the importance of competence trust in these activities. Similarly, goodwill trust seemed to play an essential role. The intentions and trustworthiness of potential partners was examined before they were incorporated into the PPP. One interviewee explained that 'we will not want to work with a company that is completely not aligned with what we want to achieve with the project' (Respondent 1). Throughout the interviews it became clear that validation from the Dutch public parties (NLWorks and the Consulate) reinforced both forms of trust between the partners, removing uncertainties and making them more willing to cooperate. These findings correspond with the findings of Noble and Jones (2006), who found that there was a 'natural caution (...) from the risk of working with any new partner who is unproven in terms of factors such as credibility, reliability, trustworthiness, competence, and integrity' (p.901). Furthermore, respondents indicated that both types of trust were flexible, as they could be strengthened or broken throughout the partnership. Scholars have noted similar findings, stating that 'extended interactions helped stakeholders to build mutual understanding and to demonstrate expertise and competence' (Coleman & Stern, 2018, p.304).

These findings suggest that the relationship between networking and trust is different from that proposed in the theoretical framework of this thesis. Rather than a one-way influence, the relationship seems to be reciprocal. Trust seems to be a prerequisite for networking to occur, but at the same time it is through networking itself that the initial feelings of trust are validated or broken.

5.2 An Offer You Can't Refuse - Forging Common Ground

Forging common ground by aligning different interests towards a common goal was another boundary spanning strategy present in the interactions of the PPP. All parties interviewed for this thesis identified a clear common goal, that formed the cornerstone of the PPP, and interestingly, most could trace the evolution of this goal back to its inception. One of the prominent private partners concisely described how the common goal came to be; 'It started with () the highest level () the discussion with Mr. Modi and our Prime Minister Rutte. They discussed if the Dutch could help with cleaning the Ganges, that was step one. Then it goes down to the embassy, and then the embassy was talking to a lot of people also the Dutch government and RVO... () and after that it was NLWorks who was taking over a lot of stuff to organize and bring people together' (Respondent 4). This quote nicely captures how boundary spanning activities occurred at different governmental levels and ultimately led to the creation of the current (common) project goal. Meetings were held at different levels (national to local) where partners actively analysed the different incentives and puzzled to find possible avenues of cooperation. This reflects the boundary spanning activity of 'active listening' as described by Van Meerkerk and Edelenbos (2014).

As discussed in section 4.5.2, the interviews revealed that partners were well aware that they had different incentives to participate. The Indian government's goal was clear, to clean the Ganges. One of the private parties rightly saw the importance of a clean Ganges arguing it would result in 'better food security and cleaner water and cleaner air and higher healthcare' (Respondent 8). The public value associated with a clean Ganges is so important that they are willing to pay more than market price for the electricity produced in Ghaziabad. Several interviewees noted that the GWVF the Indian government will be paying 200%-300% of the current price for electricity, and that it is only because of the 'social impact of the project... (that) they're willing to pay it' (Respondent 9). The religious importance of the Ganges likely also plays a role, though this was not mentioned by any interviewee. The Dutch government and the semi-public partners share the Indian government's goal of cleaning the Ganges, one public-sector partner explaining that they 'work with programs that have a viable ambition to solve societal issues where you need a consortium of public and private partners' (Respondent 6). However, in addition to the creation of public value, the Dutch public partners also seek to 'facilitate Dutch companies to do business in India' (Respondent 10). In contrast, the main incentive of the private parties was to make a profit (though they were certainly also strongly believed in the public value

the project created). Holding interests that were situated in-between those of the Indian public sector and that of the Dutch private parties, the Dutch public partners gained a unique position to coordinate the boundary spanning activities that sought to incorporate/align the various interests into a common goal. Furthermore, the high competence trust and goodwill trust the other partners had for the Dutch public partners aided in their ability to perform these activities.

Interestingly, the openness/transparency about their differing incentives is what facilitated the partners to come to a common goal. One Dutch public partner that took a leading role in creating a common goal emphasized that 'alignment is a crucial word and concept, aligning business and societal, aligning short term and long term, aligning individual and consortium goals' (Respondent 6). Another Dutch public partner that facilitated the creation of the common goal nicely summarized their approach, '(they must) say what they want and then we will look task or things for them' but if they 'never deliver I will never take my next step neither' (Respondent 4). One of the prominent private partners put the practical aspect behind the alignment of goals nicely, stating whatever the motives behind a partner are, be it profit or the creation of public value, the most important success factor is that partners are given 'an offer they can't refuse' (in that collaboration realises their interests) (Respondent 8). Being open about ones' intentions within the partnership seems to enhance goodwill trust, facilitating boundary spanning activities associated with forging a common goal. Conversely, being misleading about intentions or not living up to the promises made devastates goodwill trust and greatly hinders the ability to align interests. All these aspects suggest that goodwill trust precedes the boundary spanning activities associated with the strategy of forging common ground, deviating from the conceptual model presented in section 2.6.

To facilitate the creation of a common goal, several social control mechanisms were installed within the PPP. One form of social control mechanisms were the high-level gatherings and conferences that included public sector officials (the Dutch King was even present at one of the events) and were open to the outside world. Next to the practical aspects (in-person meetings between the partners) these ceremonies also worked to strengthen the interpersonal bonds within the network. These interpersonal bonds contribute to the goodwill trust partners hold for one another, making them more flexible and open minded when negotiating the common goal. These findings correspond with an earlier study conducted by Søderberg and Romani (2017), which found a common goal was best created when there was a feeling of community and a common purpose (p.243). Moreover, these public ceremonies likely bolstered commitment to the common goal as it was proudly presented to

the outside world (including high-ranking figures). The use of social control mechanisms to strengthen partners' connection to the PPP's common goal demonstrates how such the boundary spanning activities opens avenues for trust to grow.

It should be noted that the boundary spanning activities that sought to create a common goal also impacted the formal control mechanisms that emerged in the PPP. Most significantly, the outcomes of boundary spanning activities discussed above were solidified in various contracts. The results laid out in section 4.4.1 show that as the common goal was being formed it was being incorporated into the contracts at each stage, which in turn facilitated a new phase to commence, and the goal to be further refined. This reflects the position of Barnes (1988), who argued that 'good project management ensures that there is a widespread unity of view as to the client's objective, and that this view is maintained throughout the (different) phases' (p.69). The refinement of the common goal throughout the various stages of the project also increased partners' accountability, as they continually signed off on more specific responsibilities.

5.3 Reaffirming Tasks – Aligning Boundaries

Much like the other two boundary spanning strategies, the establishment of clear boundaries and task division within the partnership was clearly present. In fact, they had been elaborately outlined in the various contracts (see section 4.1), allowing respondents to easily identify and explain the roles of the other partner in the PPP.

For example the Partnership Declaration (2018) stated that the Indian governmental partners were expected to provide the land to be bought for the projects, deliver the waste to the facility, and purchase electricity produced at the Ghaziabad site. In turn, the Dutch embassy was to act as the bridge between the project and the Indian government, and together with NLWorks also act as a bridge with the Dutch government. Gieling Consultancy was tasked with developing the business model, managing the consortium of private partners, and responsible for actually realizing the projects. The division of tasks between the Dutch partners was further specified in the Programme Development Accord (2018). The boundary spanning activities, consisting of many meetings between the various partners where the resources and capabilities were assessed, facilitated contractual obligations to be drafted that served as performance indicators. One respondent stressed the importance of these meetings, explaining that 'partners should meet each other on a more frequent basis' to improve the exchange of information and facilitate the coordination of roles and tasks within

the PPP (Respondent 7). Mediating the flow of information across organizational boundaries and improving interorganizational coordination represent two crucial boundary spanning activities (van Meerkerk and Edelenbos, 2018, p.4) The clarity that the clear delineation of tasks and obligations created enhanced communication between partners. The improved communication and coordination between the organisations involved undoubtedly worked to improve the PPP's performance, as scholars note that poor interorganizational communication is a vulnerability many PPPs face (Keers and van Fenema, 2018, p.863). The importance of a clear communication of the roles partners have within the project was illustrated in a meeting with a new Indian government official who entered the partnership later on and had different expectations for the partners as his predecessor (Meeting 1). Two prominent stakeholders in the project noted that this miscommunication put the project in a bad light, created unnecessary risks, and caused a delay (Respondent 8; Respondent 9).

Though various control mechanisms laid down the division of tasks and responsibilities, they remained flexible. Partners indicated that 'the roles were quite clear from the beginning', but also stressed that as the projects progress the 'expectations and also the roles will change again' (Respondent 7; Respondent 10). A continuous reassessment of the roles gained increasing importance as the projects grew in scale and more money got involved. One respondent noted that during the various stages of the project agreements had been made between the partners that sought to 'reaffirm() that these are their tasks, and that they are capable of doing these tasks' (Respondent 2). For example, many respondents saw the moment that investments were secured as a key moment where the interorganizational boundaries and responsibilities had to be reassessed.

One of the public partners noted that once the '(primary private party) has secured the funding his role changes because he has the funding, he is now a different type of partner in the group because he is going to use the money to make it happen', essentially noting that the private partner will take on more a central role within the PPP (Respondent 2). Similarly, a respondent explained that in the final phase of the projects, once the plants are running, 'there is no role really from the public sector much anymore, so I do think that the role of the public partners will probably go down and reduce to a smaller role. On the project level it will be more private for sure' (Respondent 10). The changing roles and interdependencies between partners in a PPP was observed scholars such as Williams (2002), who argued that boundary spanning activities like (active) listening/understanding and conflict resolution were important tools to deal with the changes a PPP may encounter. It is therefore not unsurprising that several respondents were frustrated with the travel restrictions imposed during the Corona Crisis, as these impeded the ability for in-person meetings to occur, and

thereby hindered certain boundary spanning activities (building of interpersonal relationships and the exchange of information). These frustrations were best expressed by a major private partner who complained that the restrictions '(are) now an issue, because during corona it is not easy to go so via Zoom or Teams, and that's OK but I think to really organize such a project you really need to be on the ground, otherwise nothing is going on' (Respondent 8). These statements suggest two findings. Firstly, that the boundary spanning activities connected to managing interorganisational boundaries continue throughout the entirety of the PPP. Secondly, that control mechanisms and trust both play a role in determining and solidifying the roles partners take. In this sense their relationship to this boundary spanning activity is reciprocal.

5.4 Putting Pen to Paper - Control Mechanisms

Throughout the PPP several formal control mechanisms were installed by the parties involved. This research examined 7 significant contracts and agreements used within the partnership (see section 4.4). As discussed in the sections above, formal control mechanisms were connected to all three boundary spanning strategies. However, the use of formal control can be summarized to serve two primary goals; improving communication between partners, and ensuring accountability.

By providing clarity, contracts and agreements improve communication between partners. Firstly, they specify the partners involved in the PPP. The formal control mechanisms that do this in the Hindon projects are the Memorandum of Understanding (2016), the Partnership Declaration (2018), and the Programme Development Accord (2018). Secondly, these same documents solidify the roles that partners are expected to take and the resources they must commit. Thirdly, through the implementation of performance indicators, formal control mechanisms make it clear to the partners what results are expected of them. Fourthly, contracts stipulate what the consequences are if partners do not live up to the agreements. One respondent stressed that the most important aspect of contracts was that they 'facilitate the clarity of liabilities between the parties' (Respondent 1). Looking at these four aspects, it is clear that control mechanisms put the outcomes of various boundary spanning activities on paper, which helps to improve the communication between partners.

However, the control mechanisms installed in the Hindon projects go beyond simply creating clarity between partners, they also allocate risk by determining what resources partners are expected to commit. Multiple respondents noted that once investments are secured

comprehensive contracts will be even more important. One of the private parties involved emphasized that 'if we go to the next phase where we are planning to invest 135 million euros, yeah you have to make some sort of contracts' (Respondent 5). Moreover, these contracts will be legally binding, which was not the case for many of the previous agreements which respondents viewed as 'informal agreements and so non-binding' (Respondent 5). Therefore, it could be argued that at the point of this research trust played a crucial role because punitive measures to prevent opportunistic behaviour had not been installed yet. This view was shared by one of the private partners who explained that 'contracts are important, but when there is no good relation contracts will not help you set up a project (...) contracts are a legal document, but (they can also cause) a lot of trouble and issues that will not help the speed up the project' (Respondent 9). These fears reflect the widely held view that contracts cannot cover all aspects of a PPP and need to be supplemented with relational aspects (Warsen et al., 2019, p.376). As the project moves into the next phase it is expected that formal agreements further expand of partners' accountability through the installation of conflict resolution mechanisms and sanctions to ensure partners live up to their promises.

In contrast, informal control mechanisms were used within the PPP to create shared values and feelings of commitment to the team. As shown in section 4.4.2 ceremonies and meetings were regularly held and worked to bolster the partners' commitment to the project. Previous research argues that 'as personal attachment accumulates, both parties develop a common culture that nourishes mutual earning and knowledge exchange', and this was certainly true within the Hindon projects (Luo, 2001, p.187). In this way the personal attachments directly benefitted the performance of the PPP. However, it should be noted that in the past two years the travel restrictions severely hampered the amount of informal control that could be exerted.

5.5 Flexible but Consequential - Trust in the Hindon Projects

Both types of trust examined in the theoretical framework were present in the PPP. As shown in section 4.5.1, competence trust was an essential part of the networking activities that led to the formation of the PPP. Most partners indicated that they practiced some form of due diligence to determine if they wanted to embark on the PPP or invite new partners to it. In this way, competence trust preceded boundary spanning activities that sought to bring together different organizations. However, if invited to the PPP, partners gained the opportunity to influence the competence trust of their peers by demonstrating their abilities.

As the three boundary spanning activities discussed in this thesis continue throughout the entirety of the PPP partners are motivated to demonstrate their competencies continuously. Partners therefore exhibited both methods to improve competence trust described by Das and Teng (2001).

Furthermore, the interviews revealed that partners held a high degree of trust in the intentions of the others. These feelings were reinforced by the interactions witnessed throughout the meetings, and perhaps most concretely, the limited number of binding formal contracts that had been signed at the time of this research. The results of section 4.5.2 demonstrate that trust in the intentions of others preceded even the trust in their competencies. The institutional backing many of the partners had certainly contribute to the initial trust they received from other partners. One respondent admitted that it was 'because of the embassy's support' that the initial networking activities were possible and successful (Respondent 1). Moreover, the various informal control mechanisms incorporated into the PPP foster shared values and a commitment to the common objective and the team. The main consequence of the presence of both types of trust is that partners had more autonomy and were more flexible with one another, as will be discussed in the following section.

5.6 A Successful Marriage – Influence of Trust and Control on PPP Performance

Throughout the interviews, all respondents indicated they were happy with the performance of the PPP up until that point. To justify this all pointed to either the behaviour of partners, or performance indicators installed in the contracts, revealing the importance of trust and control mechanisms in their interpretation of success.

The most mentioned performance indicator was that of the deadlines, the most important of which was held in the Letter of Acceptance, it reads that 'all project related planning, designing, construction and other activities for the operation of the Waste to Energy Plant shall be completed as early as possible and in no circumstances it shall exceed more than Thirty Six (36) months from the date of issuance of this Letter of Acceptance' (Letter of Acceptance, 2018). The respondents that referred to this deadline expected a delay to occur, one explained that 'there were a lot of things that were happening on both sides, so well on the Indian side as the Dutch side. So that's why there was a delay that's coming up' (Respondent 3). High intentional trust between the partners made them more flexible and

open to delays. One interviewee compared the partnership to 'a successful marriage', explaining that 'it will go through ups and downs (...) and sometimes you face frustrating moments' (Respondent 1). Nonetheless, despite the flexibility of the partners, their strong desire to meet the deadlines set in the Letter of Acceptance reflect the importance of finishing projects on time, the first corner of Barnes' (1988) Iron Triangle criteria.

Another point of success that several respondents mentioned was the size of the investment/project. Various contracts and agreements specified the size of the private investments, reflecting another way formal control introduced concrete performance measures for the partnership. The contract that includes all partners states that the two projects will have 'an estimated investment amount of up to 200 million Euros' (Partnership Declaration, 2018, p.2). In particular, the public parties involved stressed the importance of the size of the investments. A high-ranking official explained that 'it was the one of the largest pieces of investment that we were looking at' and that he was a 'little concerned in terms of the original project size, which was pushed initially at about €200 million (but) the initial investment on the ground was really not very big between the two (...) maybe just 5 or 10 million (Euros). (This is a) concern to me because (...) we will need to show the government that we mean business' (Respondent 9). However, the private partners were also aware of the importance of the investment size for the public parties, one remarking that 'the size of our proposals started to sink in their (GoUP officials) brains today. They realized, hey wait a minute this this might be one of the larger investments the Netherlands will do in Uttar Pradesh' (Respondent 5). Though, the formal control mechanisms provided some security, it was the partners' trust in competencies and in intentions that contributed to the partners' feelings of success, as all were confident that the private partner would be able to secure the investments. Though different from the second corner of Barnes' (1988) Iron Triangle (staying within budget), the financial aspect of the project clearly plays an important role in way partners interpreted the success of the project. Moreover, it is likely that once financing is secured, the focus will shift towards staying within budget.

Other respondents had a more goal oriented view of the PPP's performance. One stated that 'when the common goal and the separate objectives are met then it's a successful operation' (Respondent 10). This perspective emphasizes the importance of successful boundary spanning activities that work towards the creation of a common goal that incorporates/addresses the interests of all organizations involved. One public partner viewed the performance of the project through the lens of the broader program, arguing that the major success factor was if the project was 'scalable (to) bring it to other regions as well' (Respondent 6). This view was shared by a private partner, who explained that 'there are

only 2 (projects) now, but I think there will be 20 or 40. When it starts it will not stop' (Respondent 8). Another interviewee shared this view, showing pride in the fact that they had created a project where 'the business case underneath is quite innovative as the project 'pays (for) itself in effect', allowing the project to be upscaled easily (Respondent 4). The partner therefore determined the project was successful because it was on track to meet the primary specifications outlined in the Partnership Declaration (2018), namely, the 'develop(ment) of a public-private program to clean up Hindon and other parts of Ganga basin (...) based on viable business models (and) without investments from Uttar Pradesh or the Government of India'. Meeting the contractual specifications reflects the third corner of Barnes' (1988) Iron Triangle. As the project was yet to be completed trust in the intentions of the other partners, and trust in their ability to perform their tasks, both contribute to partners' confidence in the continued success of the project into the future.

6 Conclusion

In conclusion, the Hindon projects are a fascinating example of an international public-private partnership within which a range of boundary spanning activities are conducted. This thesis performed a case study in an attempt to answer the research question; 'in what ways do boundary spanning activities within a public-private partnership impact trust and control to improve the networks' performance?'. In summary, boundary spanning activities within the PPP improve trust and control between partners, which improves the PPP's performance as it becomes more robust and capable of handling the complexities associated with an international PPP. The robustness of the PPP may be attributed to two characteristics; flexibility and accountability.

Firstly, the impact of boundary spanning activities on trust and control between partners makes the PPP more flexible. Boundary spanning activities used to align boundaries and forge a common goal fostered goodwill trust amongst the partners. In turn, because the partners trusted each other's intentions they were able to craft contracts that provided a lot of autonomy to the partners. This freedom to act allowed partners use their knowledge and expertise efficiently towards realising the PPP's common goal. Moreover, because partners were aware of each other's intentions these had been successfully aligned into a common goal, partners were confident that partners refrain from opportunistic behaviour. The leeway they provided one another in regards to deadlines is but one example of this. Furthermore, the freedom that partners had within the PPP was justified by the high amount of trust partners had in each other's competencies. Therefore, by bolstering trust within the partnership, boundary spanning activities provided flexibility to the PPP, making it more robust and resilient.

Secondly, boundary spanning activities improved the PPP's performance by making partners accountable, which disincentivised opportunistic behaviour. The results of the boundary activities (contained within the three boundary spanning strategies; networking, aligning boundaries, and forging a common goal) were transformed into performance indicators that reflected those of the Iron Triangle (money, time, specifications) and incorporated into various formal control mechanisms. These held partners directly accountable for the results they delivered. Moreover, as the projects grow and more money gets involved, the importance of formal control will increase. Additionally, the interpersonal connections and common values developed through informal control mechanism installed in the PPP also increased the accountability actors felt towards one another, allowing the project to

successfully navigate its initial phases where few formal control mechanisms existed. Through creating accountability and common values, formal and informal control worked to prevent opportunistic behaviour from arising within the PPP, improving its performance.

Though the Hindon project are still ongoing, its results so far are promising and show that it is possible to achieve the synergy of public private partnerships in an international setting. Like the confluence of the many tributary streams that come together to form the powerful Ganges river, the Hindon projects uses boundary spanning activities to bring together various public and private partners to realise a project that they could not achieve by themselves.

6.1 Limitations

This thesis has three major limitations. Firstly, no partners from the Indian Government were consulted in the research. This possibly created a one sided view of the project that takes on the perspective of the Dutch partners. Secondly, the researcher was employed by one of the parties involved, possibly influencing the data that was obtained, and the perspective with which it was analysed. Though the researcher did their best to avoid any bias, it is unrealistic to assume this was completely eliminated. Moreover, connections to one of the partner were essential to gain access to the other partners of the PPP, and it is unlikely that this research could have been conducted had this not been the case. Third, the Hindon projects are ongoing, meaning that the respondents' perspective of its success are a but a snapshot of its current state. Moreover, because the PPP is still active participants may have been inclined to provide responses that place the PPP in a favourable light.

6.2 Suggestions for Future Research

Future research could re-examine the Hindon projects once the project is complete to see if the views of its partners changes. Alternatively, future studies could try to determine if the concepts of trust and control can be separated within the context of a PPP, or if they are intrinsically linked. Another interesting avenue for future research is the ways that boundary spanning activities have changed during (and perhaps after) the Corona Crisis, as it was clear that the pandemic severely limited the degree to which they could occur within the Hindon projects.

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