Perceptions of Public and Private Partnerships in Costa Rica

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ABSTRACT

In this dissertation, I explore the perceptions and beliefs of decision-makers, public officials, and stakeholders engaged in transportation infrastructure policies and infrastructure public-private partnerships (IPPPs) in Costa Rica. Specifically, I use Q methodology coupled with interviews of both participants and non-participants to answer four research questions: (i) What do public officials and leaders believe are the most important things to consider when designing infrastructure public and private partnership for a highway construction project in Costa Rica? (ii) What are the most contentious issues in developing and implementing infrastructure PPPs? (iii) Are there areas of consensus among the representatives from various decision-making groups? (iv) Given the areas of contention and consensus, what avenues and strategies can be used to support effective implementation of transportation policy and PPPs?

The findings from this study may help Costa Rica better address its transportation policy and IPPPs challenges. First, the findings reveal three distinct views on IPPPs in Costa Rica: one favoring productivity and the private sector, not participation; a second favoring national competitive and development strategies; and a third favoring citizen participation, transparency, and public benefits.

Second, the most contentious issues generally center on the means-ends relationship in IPPPs, and specifically on strategy, participation, and outcomes. Additional areas of contention include the costs to citizens and lack of transparency, widespread distrust exacerbated by a lack of mechanisms for conflict resolution and citizen participation, and the historic neglect of public transportation policy in Costa Rica.

Third, the Q study revealed a single consensus statement and five statements that represented areas of agreement, two of which were ranked as most important and three of which were ranked as most unimportant. All of the most important statements, including the consensus item and two areas of agreement, concern the development and competitiveness of Costa Rica, while the most unimportant statements concern more social aspects of IPPPs, such as inclusion of diverse views, public acceptance, and discussion of conflicts.

Finally, the consensus areas suggest that national development and competitiveness could be a starting point for conversations among about IPPPs in Costa Rica. Other data suggest three additional avenues and strategies that could support effective implementation of transportation policy and IPPPs, including: (1) Reforming the governance structure of the Ministry of Public Works and Transport (MOPT) and creating enabling legislation that facilitates the use of IPPPs; (2) Building trust among the stakeholders by improving the capacity and human capital of MOPT and by using public participation; and (3) Using modern, more advanced public relations strategies centered on the two-way symmetrical model of communication at the very beginning of the IPPP process. Hopefully, the results of this dissertation will foster the good will – and the political will – to move forward on this crucial aspect of national development and success in Costa Rica.
Perceptions of Public and Private Partnerships in Costa Rica

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For Vale
Who taught me that being kind is more important than being right, and that in life, it is sometimes important to talk less and smile more.

For Tina
A true renascence democracy guardian who taught me that pursuing happiness and the improvement of democracy through discovery are not mutually exclusive.

For Becca
She taught me that art and science can flirt playfully to find creative solutions and that honesty is always the best kind of policy.

To Science the first expression of punk rock because it does not advance without challenging the status quo…

And to all the families, friends, strangers, individuals, and organizations that donated their time, money, or resources throughout this academic journey: ¡gracias totales!
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CHAPTER 1
INTRODUCTION

April 11 – a Costa Rican holiday commemorating the 1856 death of Juan Santamaría, the nation’s most emblematic hero – took on new meaning in 2013 when massive riots over the San José-San Ramón Highway broke out in the central park of Alajuela, the nation’s second largest city. At the time, then-President of Costa Rica, Laura Chinchilla, was giving a speech to elementary students and government officials as part of the holiday celebration. On the other side of a metal fence, members of the Foro de Occidente – a citizen advocacy group – were protesting the government’s decision to contract a private Brazilian firm to expand the highway. As more and more people gathered behind the fence, tensions rose and the celebration ended with a clash between presidential security forces, protesters, and the press (Oviedo 2013). The chaos was broadcast live, and the San José-San Ramón Highway – and the national infrastructure crisis it represented – became the most visible issue on the country’s political agenda.

Specifically, while government, the private sector, and citizens alike agreed on the need for the San José-San Ramón Highway – and for more transportation infrastructure generally – there was widespread disagreement about how to build that infrastructure, and strong public dissent against the use of an infrastructure public-private partnership (IPPP), a contractual agreement between government and a private sector entity regarding the financing and delivery of transportation projects, such as toll roads (USGAO 2008; Geddes 2011), to do so. Despite the public’s opposition to the IPPP for the San José-San Ramón Highway Project, the government of Costa Rica, like many other nations around the world, had, over the last two decades,

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1 On April 11, 1856, Juan Santamaría aided a Costa Rican ad-lib army of peasants in expelling American mercenaries who represented private interests that aimed to exploit Central American mineral resources (Scroggs 1916).
increasingly attempted to deal with infrastructural issues by implementing IPPPs and creating administrative units inside the Ministry of Public Transportation (MOPT) to deal with concessions. And, not surprisingly, the complexities of IPPPs and the involvement of diverse stakeholders has continued to lead to several problems and controversies involving political sensitivities, information and power asymmetries, conflicting values, and potential deviations from the public interest, among others. Many of these and other challenges stem, at least in part, from differences in the perceptions among the wide variety of stakeholders involved in IPPPs. Unfortunately, however, no one has stepped back to explore the perceptions of stakeholders about IPPPs and transportation infrastructure policies in Costa Rica.

This seeks to fill that gap in research by using Q methodology and stakeholder interviews to examine the perceptions of public officials and representatives from various decision-making groups relevant to IPPPs and transportation infrastructure policies in Costa Rica. Specifically, this dissertation focuses on the following research questions: (i) What do public officials and leaders in the transportation policy arena believe are the most important things to consider when designing a public and private partnership for a highway construction project in Costa Rica? (ii) What are the most contentious issues in developing and implementing infrastructure PPPs? (iii) Are there areas of consensus among the representatives from various decision-making groups? (iv) Given the areas of contention and consensus, what avenues and strategies can be used to support effective implementation of transportation policy and PPPs? Before further discussing this dissertation, however, it is useful to give a bit more background on the Costa Rican infrastructure crisis, IPPPs, and San José-San Ramón Highway Project.
THE SAN RAMÓN HIGHWAY PROJECT: PATH TO A CRISIS OR TO A SOLUTION?

In spite of its internationally competitive human capital (Mora 2016; OECD 2018; Sala-i-Martin et al. 2014; Trejos 2016), Costa Rica is ranked as having one of the worst infrastructures in Latin America (Diaz 2015; Sala-i-Martin et al. 2014). The nation’s institutional inefficiency in the provision of public infrastructure, as well as the infrastructure itself, is an economic hazard (Estado de la Nación 2016; OECD 2018; Ruiz and Fernandez 2015; Solis 2016a; Trejos 2016). Not only is the current infrastructure inadequate for meeting existing companies’ needs (Mora 2016; Ruiz 2015; Trejos 2016), but it also reduces opportunities for new foreign direct investment, as well as the likelihood that transnational corporations will relocate to Costa Rica (Artavia 2016; Sala-i-Martin et al. 2014; Trejos 2016).

Aside from hindering economic development, competitiveness, and productivity, Costa Rica’s infrastructure also negatively affects quality of life for citizens. In the major metropolitan areas, an average citizen commutes nearly two hours to work every day, impacting many aspects of both productivity and leisure (Barrantes 2014; Ruiz and Fernandez 2015; Ruiz 2015; Loria Salazar 2014; Estado de La Nacion 2016). Every year, hundreds of lives are at risk due to deteriorating public infrastructure, especially on highways (Loria Salazar 2014; Ruiz and Fernandez 2015). Moreover, with oil and electricity prices in Costa Rica among the highest in the region (Sala-i-Martin et al. 2014; OECD 2018), continual increases in tolls and oil prices have eroded citizens’ trust in public officials, especially those who serve at the MOPT, and prompted protests and riots (Font 2013; Ruiz and Fernandez 2015). Citizens’ demands are simple: safer roads and infrastructure, affordable tolls, and less traffic (Font 2013; Ruiz and Fernandez 2015; Salazar-Murillo 2016).
Like many nations around the world, Costa Rica increasingly has turned to public-private partnerships (PPPs) – medium to long term arrangements wherein a private sector entity provides all or some part of public sector services – to address its many transportation issues, the private role is expanded in a PPP to include maintaining, operating, and financing transportation and public service delivery projects. Private participation often includes the management, operation or renovation of an existing facility (known as brown field projects), as well as the design construction and operation of a new facility (Geddes and Wagner 2013; Boyer, Van Slyke and Rogers 2015; Iossa and Martimort 2015; Miraftab 2004; Wettenhall 2003; Warner 2013). When PPPs are used in the context of transportation or infrastructure services, they are called infrastructure public-private partnerships (IPPPs). IPPPs are particularly appealing in Costa Rica because the country lacks the capital to address infrastructure challenges due to high levels of debt and fiscal deficits and an inability to raise taxes (Avendaño-Arce 2016; Bosque n.d.; Loria Salazar 2014; Torres 2017; Umaña 2017). Given these circumstance, an IPPP for the San José-San Ramón highway project seemed appropriate.

The San José-San Ramón highway is a 57.9 kilometer project that includes the complete reconstruction of the current road and an expansion, along with 18 overpasses, 43 bus stops, and 23 crosswalks. According to the National Contracting Office, 150,000 cars circulate that route per day (Gonzalez 2013). In the early 2000s, the Costa Rican government proposed the San Ramón highway project, which would reconstruct and expand the highway from San José to San Ramón. Although the bid was opened in 2004, the contract was not sent to the General Comptroller Office\(^2\) for approval until 2012. The delay was due to the slow and costly expropriation processes for approximately 293 properties, which was made more complicated by

\(^{2}\) Contraloría General de la República: Institution in charge of auditing the correct use of public resources by state Institutions.
the 2007-2008 global financial crisis (Gonzalez 2013), as well as rising citizen discontent. The $524 million concession eventually was given to the Brazilian construction firm, OAS, which had been accused in many corruption scandals throughout the Americas, including in Costa Rica (Dyer 2014a; Walder 2017). In November 2012, the General Comptroller Office approved the contract, binding the partnership between OAS and the Costa Rican government (Gonzalez 2013).³

In the weeks following the approval, Paul Brenes formed the Foro de Occidente (Occidental Forum, also called the Foro) as a coalition of citizen groups representing the different cantones directly affected by the highway and opposed to the IPPP. The Foro’s slogan reads “Highway yes, Concession no!” reflecting the belief held by many Costa Ricans that although the construction of the project was beneficial to the citizenry, the partnership with OAS was not. That slogan was charged and cross-branded with references to Juan Santamaria’s fight against United States mercenaries (Font 2013). Displays of angry rhetoric toward private companies from abroad were brought to life with billboards and chants used in all the demonstrations. The common message was: “Costa Rican citizens will not tolerate the privatization of public roads by filibusters” (Font 2013).

The Foro conducted a detailed study of the contract and developed several arguments against the project. First, the Foro argued that the IPPP increased the cost of the project and the government lost the opportunity to profit from the tolls once the costs of construction were covered (Brenes 2016a; Cordoba 2013). Specifically, the group found a more than 100% price increase for the project, which went from $197 million in 2004 to $523 million in 2012. In addition, the tolls increased from $1.30 to $3.88 (Cordoba 2013). Second, they argued that the

³ A Spanish firm, Autopistas del Sol, initially won the bid in 2005, but due to problems, the firm yielded the contract to OAS. The law allows a private firm to yield the contract to another firm without opening a public bid again (Flores n.d).
project lacked transparency and accountability, and that there should have been citizen involvement during the negotiation process, particularly to better understand the pricing models of the tolls (Brenes 2016b; Font 2013; Loria Salazar 2015). Accordingly, the general public took the increase in prices poorly, due to the lack of transparency, alleged conflicts of interest, and arguments from the Foro the Occidente “that the mathematical pricing mechanisms and formulas did not make sense” (Brenes 2016). Third, the Foro argued that the San Ramón Highway was yet another example of increasing government centralization and the failure to involve local governments and grassroots organizations in important public decisions (Brenes 2016a; Loria Salazar 2017a). In place of the IPPP, the Foro proposed that the government carry out the project itself through the Ministry of Public Transportation and Public Works (MOPT). The group argued that if MOPT managed the project, profits could be invested in education, local health centers, or more infrastructure. Conversely, the partnership with OAS not only prevented the government from gaining funds for public goods, but also deprived the Costa Rican economy in favor of a foreign company.

Several government officials including Pedro Castro, then Minister of MOPT, and Edwin Rodriguez, then Vice Minister of Concessions, defended the IPPP, arguing that people would save both time (each ride would be 30 minutes faster) and money (each ride in peak time would be $6 cheaper) (Gonzalez 2013). Moreover, although Pedro Castro claimed the Costa Rican Chamber of Construction (CCC) determined the 2012 cost by applying inflation rates for the last 9 years, the Executive Officer of the CCC, Randall Murillo, declared they did not update the total cost of the project, but rather only updated the unit price of the construction materials that

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4 Other opponents intended to annul the concession by pointing out an alleged conflict of interest by Castro (Minister of Public Transportation), who was contracted by OAS to conduct a feasibility study that extended the concession from 25 years to 30 years (Font 2013). At the time of the protests and civic riots, the Municipality of San Ramón and attorney Roger Barboza asked the country’s Comptroller General to look into those allegations (Avendaño-Arce 2016).
were declared in the 2004 contract. “We don’t know if the price is technically justified because we were not given the designs, blue prints nor technical details, we don’t know if the materials declared in the 2004 contract were correct either.” Murillo insisted that to do a real revalorization they need the projects’ blue prints, which MOPT failed to give to them or to the public (Cordoba 2013).

Nevertheless, through public protests and opposition marches, the Foro de Occidente – Costa Rica’s first citizen-organized advocacy group against an IPPP – aimed to annul the government’s contract with the Brazilian conglomerate. Opposition to the concession reached a critical breaking point in April 2013, when public protests from citizens outraged by the high proposed toll rates put enormous pressure on President Chinchilla. She had two options: (1) nullify the contract with OAS and face a potential billion-dollar lawsuit for breaching the terms of the contract, or (2) comply with the contract and worsen the growing social unrest (Font 2013). She decided to terminate the contract, and shortly thereafter, OAS left the country with $35 million in reparatory compensation for the cancelled concession from the Costa Rican government (Ticos Times 2015).

For some, the San Ramón highway project set the nation on a path toward a crisis, and particularly a crisis of public trust in government. For others, however, the highway project and its surrounding controversy potentially offered a path toward a solution in that it shed light on an already existing infrastructure crisis and highlighted the need to better think through and use IPPPs. For all, the San Ramón highway case captures some of the serious potential problems with infrastructure private and public partnerships. IPPPs are among the most complex

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5 In February 2015, President Solis signed a renegotiated San José-San Ramón Highway project into law, creating a trust fund with revenue from various government agencies and public institutions, such as the National Insurance Institute, public pensions, and public banks (Arias 2015; Bosque n.d.; Dyer 2014b).
collaborations between the public and private sectors. They frequently cost billions of dollars, involve local, state or provincial, national, and/or international financing institutions, and produce contractual obligations that can last up to 90 years (Boyer, Van Slyke and Rogers 2015; De La Guardia 2016; Van Slyke 2016). Moreover, they involve numerous stakeholders who must address issues of financing, design, risk management, implementation, evaluation, and maintenance. These stakeholders can include elected officials, government officials and administrators, construction firms, engineers, architects and design experts, private equity investors, banks, lawyers, representatives of public interest groups and academia, and others (Bozeman 2002; Hodge and Coghill 2007; Hodge and Greve 2007, 2010; Warner 2013). These complexities, coupled with multiple relevant actors, frequently leads to several challenges, many of which arise from differing perceptions among stakeholders.

Unfortunately, however, despite the fact that IPPPs are growing in both popularity and use, the perceptions, opinions, and beliefs of decision makers and other stakeholders in these collaborations have been the subject of relatively little research (Boyer, Van Slyke and Rogers 2015; Dannin 2011; Geddes 2011), especially in Latin America (Sala-i-Martin et al. 2014), and particularly in Costa Rica (Artavia 2016; Arias 2015; Bosque n.d.; Dyer 2014b). Within the Costa Rican context specifically, there is a need for a better understanding of the perceptions of a wide array of decision makers and influencers in IPPPs to promote greater accountability and to address the infrastructure deficit that is hindering development, competitiveness, and quality of life. Awareness of stakeholder perceptions may help legitimize PPPs by lessening the problem of information asymmetries and shedding light on the issues at stake. The need for such research, and the desire to contribute to the improvement of Costa Rica, motivated this dissertation.
THE DISSERTATION

This dissertation examines the perceptions of public officials and representatives from various decision-making groups relevant to public-private partnerships and transportation infrastructure policies in Costa Rica. Specifically, this dissertation, which is organized into five parts, uses Q methodology coupled with stakeholder interviews to address four research questions:

(1) What do public officials and leaders in the transportation policy arena believe are the most important things to consider when designing a public and private partnership for a highway construction project in Costa Rica?

(2) What are the most contentious issues in developing and implementing infrastructure PPPs?

(3) Are there areas of consensus among the representatives from various decision-making groups?

(4) Given the areas of contention and consensus, what avenues and strategies can be used to support effective implementation of transportation policy and PPPs?

In chapter two, I provide an extensive literature review on IPPPs, their different schematics, concepts, scope, risks, range and uses around the world and the ones applicable to the developing world, in this case Costa Rica. I also discuss the Costa Rican context and explain how infrastructures deficits are the Achilles heel hindering growth and competitiveness in this Central American country.

In chapter three, I explain the methods I used to address my four research questions. Specifically, I used Q methodology, a quantitative approach used to explore and understand people’s subjective perceptions, opinions, and beliefs on any particular issue (McKeown and
Thomas 2013). I executed the Q study at the Costa Rican National Congress on February 22, 2016 with 49 high-level decision makers representing the government, business, civil society, academic, and media sectors. To better understand the Q study results, I conducted interviews with 18 stakeholders, including 6 who has participated in the Q study and 12 who did not participate in the Q study.

Chapter four presents the findings for the first three research questions: (1) What do public officials and leaders in the transportation policy arena believe are the most important things to consider when designing a public and private partnership for a highway construction project in Costa Rica? (2) What are the most contentious issues in developing and implementing infrastructure PPPs? (3) Are there areas of consensus among the representatives from various decision-making groups? First, the Q study revealed three factors (Factor A, Factor B, Factor C), each of which sheds light on a different perspective on IPPPs. Specifically, for those in Factor A, “Productivity and the Private Sector, not Participation,” the focus of transportation policy and IPPPs should be on productivity with more participation from the private sector rather than the government in the provision of public infrastructure, and without the hassles of participation. Those in Factor B, “National Competitiveness and Development Strategies,” wanted a more strategic approach to IPPPs, seeking the alignment of multiple activities with multiple goals all centered on national development and competitiveness. Finally, those in Factor C, “Citizen Participation, Transparency, and Public Benefits” favored a focus on what might be considered the human side of IPPPs, ranking statements related to citizen participation, transparency, and public benefits as most important.

Second, the interviews with the non-participants suggested three broad areas of contention: costs to citizens and lack of transparency, widespread distrust exacerbated by a lack
of mechanisms for conflict resolution and citizen participation, and the historic neglect of public transportation policy. Further analysis of the factors revealed additional contentious issues, which generally center on the means-ends relationship in IPPPs, and specifically on issues such as strategy, participation, and outcomes.

Third, the Q study revealed a single consensus statement and 5 statements that represented areas of agreement, two of which were ranked as most important (+4, +3) and three of which were ranked as most unimportant (-4, -3). All of the most important statements, including the consensus item and two areas of agreement, concern the development and competitiveness of Costa Rica, while all of the unimportant statements concern what might be considered the social aspects of IPPPs, such as including diverse views, public acceptance, and discussion of conflicts. Thus, it appears that while all parties agree that IPPPs should be used to promote and enhance national development and competitiveness, there is less agreement on other goals for IPPPs.

In chapter five, I build on the results for the first three research questions to address my final research question: Given the areas of contention and consensus, what avenues and strategies can be used to support effective implementation of transportation policy and PPPs? The statements in the factors suggest that a focus on overall national development and competitiveness, as well as a focus on specific national development goals, could be a starting point for conversations about IPPPs in Costa Rica. The identification of such common ground is particularly important given the context of Costa Rica where there has been (and continues to be) bitterness and distrust among the participants and stakeholders. Officials may be able to start a communication strategy among institutions based on this consensus item and commonalities found in this study.
This research in this dissertation serves at least three purposes. First, it helps parse out various perspectives on public and private partnerships and on transportation infrastructure policies, which is important both for academics and practitioners in Costa Rica. Second, it provides guidance to policy makers, academics, civil society representatives, and the business sector on the design and implementation of successful IPPPs. Finally, it begins to answer the call for more empirical research on public participation and stakeholder engagement in regard to collaborate agreements such as IPPPs (Boyer, Van Slyke and Rogers 2015; Emerson and Nabatchi 2015; Geddes 2011).
CHAPTER 2
LITERATURE REVIEW

The literature review is divided into three sections. First, I broadly define public and private partnerships (PPPs), then specifically focus on infrastructure public and private partnerships (IPPPs), a term used for transportation assets such as toll roads. Next, I discuss the challenges of IPPPs, and particularly focus on the problems and risks encountered when IPPPs are poorly designed and executed. Finally, I conclude with an examination of the Costa Rican context and how the role of government and business relationships has been deteriorating over years, eroding trust and enhancing the challenges with IPPPs that gives rise to this research.

PUBLIC-PRIVATE PARTNERSHIPS

Public-Private Partnerships (PPPs) are defined differently and have different connotations throughout the world (Geddes 2011; Hodge 2004; PPPIRC 2012). For the purpose of this dissertation, PPPs are defined as:

arrangements, typically medium to long term, between the public and private sectors whereby some of the services that fall under the responsibilities of the public sector are provided by the private sector, with clear agreement on shared objectives for delivery of public infrastructure and/or public services. PPPs typically do not include service contracts or turnkey construction contracts, which are categorized as public procurement projects, or the privatization of utilities where there is a limited ongoing role for the public sector (PPPIRC 2012).
Despite broad agreement about the concept, the specific definition of PPPs may vary not only by region, but also by institutional and legal context. In an excerpt worth quoting at length, PPPIRC (2012) notes:

In some jurisdictions, and in particular countries that follow the tradition of the Napoleonic Code [Costa Rica has this legal tradition], a distinction is made between public contracts such as concessions, where the private party is providing a service directly to the public and taking end user risk, and PPPs, where the private party is delivering a service to a public party in the form of a bulk supply, such as a Built-Operate-Transfer (BOT) project for a water treatment plant, or the management of existing facilities (e.g., hospital facilities) against a fee. In other countries specific sectors are carved out from the definition, particularly those sectors which are effectively regulated or where there is extensive private sector initiative, such as in Telecoms. In some countries arrangements involving more limited risk transfer such as management contracts are excluded from the definition for institutional reasons as the authorities prefer that they fall under traditional procurement processes for goods and services.

It is important to note that PPPs are not a form of privatization, which is defined as “the transfer of enterprise and ownership from the government to the private sector” (Zahariadis 1995: 4). Rather, PPPs are “a process whereby private management assumes an operational role in a public project via a long-term ‘concession’ or lease-type contract with a public authority. This partnership is different from privatization, where ownership or title to a public facility is transferred to a private entity” (Levy 2011: 2). In essence PPPs offer an alternative arrangement for financing public infrastructure projects or public service delivery across different markets and
different industries. Moreover, PPPs are long-term engagements between the public and private sectors, generally codified in a formal legal contract that specifies a beginning and an end to the relationship and that places responsibility for public sector services in the hands of the private sector, with clear agreement on shared objectives.

In the last several decades, PPPs have become a highly valued tool used to generate private sector participation in and improve the design, construction, financing, operation, and maintenance of public goods or services. Today, PPPs are used around the world to provide public goods and services in areas such as health, education, telecommunications, housing, and many others (Boyer, Van Slyke, and Rogers 2015; Iossa and Martimort 2015; Miraftab 2004; Warner 2013; Wettenhall 2003). When used in transportation-related projects, PPPs are called Infrastructure Public Private Partnerships, which are explored in more detail below.

**Infrastructure Public-Private Partnerships**

Infrastructure Public-Private Partnerships (IPPPs) are contractual agreements formed between a public agency and a private sector entity governing the delivery and financing of transportation projects, such as toll roads, ports, airports, toll roads, or energy facilities. Specifically, IPPPs are defined as “highway-related projects in which the public sector enters into a contract, lease, or concession agreement with a private sector firm or firms, and where the private sector provides transportation services such as designing, constructing, operating, and maintaining the facility, usually for an extended period of time” (USGAO 2008: 5) Similarly, the U.S. Federal Highway Administration defines IPPPs as “contractual agreements formed between a public agency and private sector entity that allow for greater private sector participation in the delivery and financing of transportation projects.” IPPPs can “range from concessions of
highway rest stops to arrangements in which private partners help to design, finance, build, operate, own, and/or manage major transportation facilities” (Geddes 2011: 27).

IPPPs are among the most complex collaborations across the private and public sectors. They frequently cost billions of dollars, involve local, state or provincial, national, and/or international financing institutions, and produce contractual obligations that can last up to 90 years (Boyer, Van Slyke and Rogers 2015; De La Guardia 2016). Moreover, they involve numerous stakeholders who must address issues of financing, design, risk management, implementation, evaluation, and maintenance. These stakeholders can include elected officials, government officials and administrators, construction firms, engineers, architects and design experts, private equity investors, banks, lawyers, and others (Bozeman 2002; Hodge and Coghill 2007; Hodge and Greve 2007, 2010; Warner 2013).

The complexity of IPPPs and the involvement of diverse stakeholders can lead to several problems, three of which are particularly important for this study. First, the private sector partner can have significant influence on the design of the legal contractual agreement that gives birth to the IPPP. This can lead to potential deviation from the public interests that are presumably represented by elected officials, public administrators, and other governmental actors (Boyer and Van Slyke 2018; Boyer, Van Slyke, and Rogers 2015; Dannin 2011). The ability of citizens to offer input about how well they are served by the IPPPs is reduced because, in most cases, the main point of contact is a nongovernmental organization such as a planning or concessionary firm (Boyer, Van Slyke and Rogers 2015; Dannin 2011; Donahue and Zeckhauser 2011; Warner 2013). This potentially can lead to negative perceptions of the contract due to a lack of understanding about terms and conditions (i.e., price mechanisms for tolls), which is enhanced
by the general public’s limited access to information and lack of understanding about the legal agreement and its complexity (Dannin 2011; Geddes 2011; Saussier and Tran 2012).

Second, the conflicting values of the partners in these complex collaborations can lead to asymmetries of information between the public and private sectors. Moreover, unequal access to information can lead to power imbalances since private sector values and goals such as profit maximization are often in conflict with public sector values such as transparency, accountability, and equal access (Bozeman 2002; Hodge and Coghill 2007; Warner 2013). When the private sector has an information advantage over the public sector partner due to previous know-how, access to better technology, patents, intellectual property, or savvier financial analysts, these issues can “challenge the government to work within the norms and demands of a private sector environment” (Boyer, Van Slyke, and Rogers 2015: 2).

Third, IPPPs are politically sensitive, and in the case of developing countries like Costa Rica, have ideological components and create tensions among stakeholders (Artavia 2016; Boyer, Van Slyke, and Rogers 2015; Chacon 2016; Guevara 2016; Loria 2015; Mora 2016). In many cases, IPPP projects have user fees (e.g., tolls) that secure the return on investment for the private partner on a public service that was (at least initially) considered a public good (Geddes 2011). Often, the general public perceives this user fee as a double tax, and in some cases, as a benefit the private sector partner received at the public’s expense (Arnold, Anker and DeCorla Souza 2012; Boyer, Van Slyke, and Rogers 2015; Geddes 2011; Warner 2013).

Risks in IPPPs

Beyond these challenges, IPPPs are also subject to several risks. For decades, governments have struggled with the question of what should be private and what should be public. The debate remains unabated, and is arguably exacerbated by the growing use of PPPs
and IPPPs. As the legal scholar Graeme Hodge (2004: 37) explains, “Government contracting with the private sector is not new. As well, governments have for centuries provided physical infrastructure with long-term financial implications. What is new, though, is the use of private finance arrangements, the use of highly complex contracts to provide the infrastructure or services, and the altered governance and accountability assumptions accompanying this.” These new arrangements, therefore, are generating new risks such as commercial risk and governance risk (i.e., accountability and transparency to the public) as a byproduct of the complexity involved in contracting around infrastructure projects. However, may experts claim that the transfer of risks from the public sector to the private sector is a crucial benefit of using private funding for public infrastructure delivery (Ball Heafey, and King 2003; Hodge 2004).

In general, risks in a contract ought to be allocated to the party that best knows how to strategically manage and cope with them. However, managing risk is not free, which raises the question of who pays for risk management?

Of course risks allocated to the private sector are paid for by the government, which pays for the facility over the longer term. Alternatively, if risks are allocated to the government, this can result in a cheaper up front project price, but with risks then being managed by the public sector in the knowledge that it is essentially ‘self-insuring’ and can bear those risk outcomes that might eventually occur. This capacity to formally shift risks from one sector to the other or to share risks over the long life of a contract is different from traditional construction projects, where, aside from typically the construction risks being borne by the contractor, all other risks were essentially borne by the government. Clearly, the sector bearing the risks here is paid a premium to do so (Hodge 2004: 39).
In other words, public funds should not always equal the return on private funds; returns to each sector will depend on the risks being carried and the capacity of each party to manage those risks by coping with elements such as capacity building and human capital, access to data, use of technology, and understanding of local and international legislation and market forces, to mention a few (cf. Hodge 2004). For these and many other reasons, the costs and the degree of risk bearing for each party needs to be crystal clear; however, this is much easier said than done. In practice, things can get very complicated, particularly when assets are rare and specific, and thus, complex.

Scholars identify an extensive range of risks related to PPPs (e.g., Arndt 2000; Ball, Heafey, and King 2003; Geddes 2012; Grimsey and Lewis 2002), which are often shared with infrastructure projects (Hodge 2004). Specifically, the risks associated with IPPPs can be broadly categorized into five areas. The first three risk areas are relatively straightforward. First, planning risk is related to poor strategic planning between the public and private partners, particularly in terms of coordinating the governance metrics, incentives, and desired outcomes (Klijn and Teisman 2003). Second, operational risk is related to liabilities, such as environmental hazards, and operating costs, such as insurance, overruns, outsourcing to third parties, or potential delays in the servicing of sub-contractors (Pagdadis et al. 2008). Third, capacity risk is related to the lack of sufficient and proper organizational, management, and technical expertise to facilitate the goals stated by the parties in the contractual arrangement (Jamali 2004).

Fourth, legal and execution risk is a bit more complicated, particularly because it can jeopardize the partnership during the planning stage (Teisman and Klijn 2002). Some of these risks can arise from ambiguity in the contract or hiccups or failures in coordination and
communication, which can in turn create misunderstanding between the partners and impact relational elements such as trust. The likelihood of these risks increase when the private sector partner is from a foreign country (Boyer, Van Slyke, and Rogers 2015). One the one hand, the partners in such arrangements must deal with different sets of legislation and different cultures around negotiation, contracting, and other relationships. On the other hand, citizens distrust can be triggered and aggravated when the private partner is from abroad. Among the many sources of opposition to an IPPP is public resistance to user fees, the terms of the contract, or a general misunderstanding of the requirements. Those issues are exacerbated when the partners did not include the general public opinion pre-award the IPPP contract and when there is no investment on building trust and the relations among the partners in the early years of the planning phase to validate the partnership.

Finally, financial risks take many forms, and might include underestimating or ignoring transaction costs such as expropriations, more nuanced risks such as currency volatility and fluctuant interest rates, and risks related to institutional and country characteristics such as corruption or lack of rule of law (Reeves and Ryan 2007). Another type of financial risk includes market failures, which occur when the price mechanism fails to account for all of the costs and benefits necessary to provide and consume a good. In such cases, the market will fail by not supplying the socially optimal amount of the good. One of the main sources of market failure in an IPPP contract process is asymmetry of information on contractual items such as product cost, quality, and quantity, or the understanding of the asset specificity between one or more of the stakeholders involved in the collaboration. The promise of effective collaboration throughout contracting between a government and a contractor consists of, first, efficiency gains mitigated by the lack of vertical integration or in-house production by the government, and second, an
increase in profits, for the contractor, since it is expected that the price is going to be above the production costs of any product or service delivery (Brown et al. 2006; 2008). When a particular product or public service delivery cannot be properly defined or is too complex (e.g., IPPPs for certain assets or Social Impact Bonds in Education), the parties involved in the collaboration process are unable to clearly define exchange terms, which can set a foundation for market failure.

Moreover, one of the many financial risks involved in the contracting process is that “the government is the only purchaser and once the contract is let, the vendor is the only viable supplier, leaving each with no easy exit from the contract, limited information about costs and quality, and engaging a partner relatively unconstrained by market pressures” (Brown et al. 2010: 42). Thus, this process has a major collective action problem since “the buyer and seller have incentives to exploit contract ambiguities for their own gain at the other’s expense, risking mutually disadvantageous outcomes” (Brown et al. 2010: 42). These and other financial risks leave us with relevant, but challenging, governance questions: what happens when the private party or the public party (or both) exploit contract ambiguities when the asset is intended to be used by the general public or when the asset is paid partially with tax payer funds? Are citizens merely considered as price takers of the service or assets at stake?

For these and many other reasons, an expanded “concept of risks is needed, covering both the commercial role of government through the signed contract and its overriding ‘governance’ role in which it protects the public interest” (Boyer, Van Slyke, and Rogers 2015: 47). In turn, this latter role requires IPPP contracts to be far less complex and to include the input of several actors. In particularly, there is a need for the competitiveness of such IPPP arrangements to involve citizens in the planning phase (rather than rely on the optimistic financial project
forecasts done by the private equity investors) since gauging citizen voices legitimizes the process and builds trust among the stakeholders (Boyer and Van Slyke 2018; Dannim 2011). In the next section, I briefly discuss the benefits of involving citizens in an “open and democratic process” to mitigate the risks associated with IPPPs (Danniin 2011: 47).

**Involving Citizens to Mitigate Risks**

Citizens all around the world want to be more than customers or price takers of given service (e.g., the toll road price in an IPPP). They want to understand the price mechanisms and models used by the government and private contractors, and they want transparency on the allocation of the contracts. However, according Danniin (2011) those democratic governance principles are heavily in opposition to the interests of the private actors in IPPPs. Specifically, she argues that the private partner in an IPPP prefers the status quo of the current complex technicalities and complicated financial models and wants to keep public scrutiny under control, claiming that too many voices jeopardizes the efficiency of the process. Moreover, scholars assert that private sector partners often view civic engagement mechanisms merely as bad public relations exercises, not as authentic attempts to seek and understand citizen concerns or perceptions (Artavia 2017a; Danniin 2015; Boyer and Van Slyke 2018). However, while complexity benefits the private firm since it creates asymmetries of information and power imbalances, it also contributes to the erosion of trust (Danniin 2011; Brown, Potoski, and Van Slyke 2006; Van Slyke 2016).

Nevertheless, there are many arguments in favor of using citizen engagement early in the IPPP process. One of the primary arguments is that citizen participation can generate many benefits, including mitigation of costly information asymmetries and reduction of transaction costs, as well as increased efficiency, transparency, accountability, and trust (Boyer and Van
Moreover, citizen engagement can help answer a very basic question: do citizens affected by the public-private partnership support it (Geddes 2012). Numerous methods can be used to gather and gauge citizen input, such as stakeholder studies, public hearings, online or face-to-face deliberative forums, focus groups, and online tools such as e-regulation rooms (Farina and Newhart 2013; Farina, Newhart, and Heidt 2012) or e-public procurement structures (Barahona and Elizondo 2012) to mention a few (see Boyer and Van Slyke 2018; Nabatchi and Leighninger 2015).

Despite these potential benefits, citizen participation is not often used in IPPPs. One challenge, particularly in developing nations is that “the current participation infrastructure relies on obsolete laws that do not take into account the perceptions, opinion and beliefs of the key actors involved” (Loria 2017). The lack of systematic design for assessing public perceptions and opinions and the lack of use of empirical evidence research prior to the execution of the contract means that partners are missing out on the potential benefits that emerge from understanding the perceptions of the main actors before the request of proposals in a IPPP arrangement (Boyer, Van Slyke, and Rogers 2015; Boyer and Van Slyke 2018). Nevertheless, more citizen engagement early in the IPPP process could help build coalitions and mitigate the democratic deficits and lack of trust among the stakeholders (Artavia 2017a; Boyer, Van Slyke, and Rogers 2015; Boyer and Van Slyke 2018; Loria Salazar 2017b).

**IPPPS IN COSTA RICA**

Costa Rica is not immune to the challenges and controversies of IPPPs. Many of the current issues with IPPPs and transportation policies can be traced to the aftermath of the 1940s revolution and the social democratic ethos of the country. According to Chavez and Ramos...
(2013: 68), “The roots of the Costa Rican welfare state were established in the late 1940s, after a brief civil war that concluded with a pact backed by the country’s main political force.” In the post-civil war era, the nation (like several other Latin American countries) embarked on a path shaped by the paradigm put forward by the United Nations Economic Commission for Latin America and the Caribbean, which included state intervention in the economy, the promotion of an import substitution model based on local commodities, and the implementation of social policies such as free education and health care, agrarian reform, and the building of public infrastructure by the Minister of Public Transportation and Public Works (Bulmer-Thomas 1987; Wilson 1994, 1998). “Between the 1950s and 1970s, and particularly during the climax of the estado empresario (entrepreneur state), the state became the centerpiece of the Costa Rican economy. The state owned and operated enterprises in a wide variety of sectors, ranging from aluminum and sugar production to energy and telecommunications, financial and insurance services, water delivery and oil refineries” (Chavez and Ramos 2013: 69).

Despite its relative success, the social-democratic model was increasingly challenged by neoliberal policies in the 1980s and 1990s, which were heavily influenced the Washington Consensus (McDonald 2014) and aimed to open Latin American economies and dismantle the import substitution model (Flores-Macias 2010, 2012). This was coupled with administrative reforms prompted by the New Public Management paradigm (Osborne and Gaebler 1993). However, aware of the contributions public companies and public institutions make to national economic development, infrastructure, and access to crucial public services, Costa Rican citizens resisted efforts to privatize public enterprises such as the Costa Rican Electricity Company (ICE) and the Aluminum Company ALCOA with civic demonstrations (Chicago Tribune Archives 1970). ICE, for instance, is perceived by the general public as an essential driver of social and
economic progress, and has been at the center of the most important social and civic uprisings and mobilizations of the past decades (Alphandary 2000).

The Central American Free Trade Agreement (CAFTA) also ignited the debate that highlighted the conflicting values and tensions between private and public service provision in Costa Rica, particularly in the fields of insurance, energy and telecommunications. These issues prompted the first referendum in Latin American politics, where the citizens had the power to determine whether to enter a binding free trade agreement with the United States and other Central American countries. The CAFTA referendum was characterized by conflicting views of those who pushed the YES campaign, which was led by the chambers of commerce, the business sector, and private universities, and those who pushed the NO campaign, which was led by public sector employees, unions, and state universities. The clash contributed to the politicization of the agreement, creating an ideological debate that entrenched polarization among competing interests (Arismendi 2007; Solis 2016b; Trejos 2016).

The legacy of these ideological issues and polarization have been transmitted to the current debate surrounding IPPPs (Artavia 2017b; Chacon 2016; Guevara 2016; Loria Salazar 2017b; Mora 2016; Solis 2016b). Costa Rican infrastructure projects have been long associated with corruption, inefficiency, and excessive public spending, creating an environment of distrust among the public sector, the private sector, and citizens, which is evidenced by several citizen riots, including the ones over the San José – San Ramón highway (Brenes 2016b; Font 2013; Guevara 2016; Mora 2016; Solis 2016a). As a result, IPPPs and transportation policies have been the “Achilles heel” for the National Economic Development agenda in Costa Rica.

Transportation infrastructure has long been a weakness in the nation, and there currently is tremendous need for effective IPPPs and transportation policy in Costa Rica. According to the
Vice Minister of MOPT, Mauricio Gonzalez (2016), in Costa Rica, a country the size of West Virginia with roughly five million habitants, there are about ninety new cars on the road per day. In 1994, there were 200 thousand vehicles, and in 2014, there were almost one million vehicles, with very little upgrading of or change in the transportation infrastructure. Moreover, according to the Vice Minister, the lack of reliable public transportation alternatives such as buses or trains, along with the lack of reliable and modern roads, means that traffic congestion is skyrocketing.

Despite the need, there is a lack of consensus among the decision-makers (and other stakeholders with less decision-making power, such as citizens) on the why, what, and how, of IPPPs and policies (Artavia 2017a; Loria Salazar 2017b; Ureña 2013). Each stakeholder seems to have a particular view on how to tackle associated problems and none agree where to start the conversation (Artavia 2017b; Loria Salazar 2017a; Guevara 2016; Ortiz 2016; Solis 2016a). The issues involved in infrastructural decision-making are “reflected in the rhetoric at the national forums on competitiveness and infrastructure, the media, journalistic opinion pieces and the political debate among the different presidential candidates” (Pignataro 2016). The debate has escalated to “a toxic and contemptuous rhetoric of government units ‘pointing fingers’ at one another, and the instability in leadership positions at the Ministry of Public Transportation has contributed to some extent to the problem and the credibility of the government institutions to solve the problems at stake” (Umaña 2017). These challenges are exacerbated by the fact that the average tenure of a Minister at the Ministry of Public Transportation (MOPT) is sixteen months, because he or she resigns or gets fired (Loria Salazar 2017b). As a result, government-business relationships have been deteriorating over years, both eroding trust and enhancing challenges (such as citizen riots against IPPPs).
This complex context gives rise to this doctoral dissertation research. A robust examination of the perceptions of the parties involved is needed to identify the points of conflict and consensus, as well as potential avenues for future action. Unfortunately, despite the fact that IPPPs are incredibly complex and growing in popularity, the perceptions of stakeholders in these collaborations have been the subject of relatively little research (Boyer, Van Slyke, and Rogers 2015; Boyer and Van Slyke 2018), especially in Latin America (Sala-i-Martin 2014) and particularly in Costa Rica (Ruiz 2015; Salazar Murillo 2016; Loria Salazar 2015; Ureña 2013). Within the Costa Rican context specifically, there is a need for a better understanding of the perceptions of a wide array of decision makers and influencers in IPPPs to promote greater accountability and to address the infrastructure deficit that is hindering development, competitiveness, and quality of life.

This dissertation seeks to contribute to developing that better understanding by using Q methodology and interviews to empirically analyze the perceptions of the different decision-making and stakeholder groups involved in IPPPs in Costa Rica. Specifically, this dissertation seeks to answer the following four questions: (i) What do public officials and leaders in the transportation policy arena believe are the most important things to consider when designing a public and private partnership for a highway construction project in Costa Rica? (ii) What are the most contentious issues in developing and implementing infrastructure PPPs? (iii) Are there areas of consensus among the representatives from various decision-making groups? (iv) Given the areas of contention and consensus, what avenues and strategies can be used to support effective implementation of transportation policy and PPPs? In the next chapter, I explain the methods used to answer these questions.
CHAPTER 3
METHODS

This dissertation explores the perceptions of Costa Rican decision-makers and stakeholders on transportation policies generally and IPPPs. Specifically, this dissertation focuses on the following research questions: (i) What do public officials and leaders in the transportation policy arena believe are the most important things to consider when designing a public and private partnership for a highway construction project in Costa Rica? (ii) What are the most contentious issues in developing and implementing IPPPs? (iii) Are there areas of consensus among the representatives from various decision-making groups? (iv) Given the areas of contention and consensus, what avenues and strategies can be used to support effective implementation of transportation policy and IPPPs?

To answer these questions, I use Q methodology coupled with stakeholder interviews. In the following sections, I first explain Q methodology, including its origins, purposes, and steps, as well as why and how interviews are often used to support and deepen Q study findings. I then explain the research design used in the dissertation, including how I operationalized the Q study and the follow-up interviews. Finally, I conclude the chapter with a brief discussion of potential limitation to the research design, including selection bias, internal and external validity, and generalizability.

Q METHODOLOGY

Q methodology is an empirical approach to the study of human subjectivity. It centers on the premise that subjective points of view are communicable and are always formed from a position of self-reference (Kinsey and Kelly 1989). Accordingly, it seeks to understand
individuals’ self-referent expressions as “pure behavior” (Brown 1980: 46) that is “preserved rather than compromised by or confused with an external frame of reference brought by an investigator” (McKeown and Thomas 2013: xvii). Today, Q methodology is well regarded as providing researchers with a systematic and thorough approach for examining the subjective components of human behavior in small sample behavioral research (McKeown and Thomas 2013).

Q methodology was created in 1934 by Dr. William Stephenson, a physicist who also held a doctorate in psychology (McKeown and Thomas 2013). As a student of Dr. Charles Spearman, the creator of traditional factor analysis, Stephenson (1977) proposed an innovative application of factor analysis where the focus was on factoring people (and specifically their subjective views on an issue) rather than their traits. Specifically, Stephenson (1953, 1961, 1968, 1976, 1977) argued that only the participant can measure his or her subjectivity; therefore, he proposed that rather than measuring the participants of a study, the participants themselves perform the measuring. Thus, in Q studies, the observer and the observed are the same person – they are identical (Kim, Kim, and Kim 2003; Kinsey 2017). Moreover, Stephenson argued that by starting with the individually reported internal perspectives, perceptions, opinions, beliefs, and attitudes of the participants in the study, Q methodology sheds some light on individual subjectivities without confusing those subjectivities with operational measurements (Kinsey 2017). This “methodological revision shifted the focus from external metrics to self-reference: how people ascribe meaning to the stimuli presented to them. Thus, access is obtained to individuals’ thoughts and feelings regarding themselves and the world about them” (McKeown and Thomas 2013: x).
Stephenson’s first essay came along at the same time as an article published by Sir Godfrey Thomson (1935) in the *British Journal of Psychology* that suggested the letter *Q* to differentiate person correlations from trait correlations, which are denoted with the letter *R*. Stephenson capitalized the letter *Q* to denote the Q technique, and above all, to distinguish his methodology from R methodology. The most important distinction between the two methods is that Q is a formal methodology used to study human subjectivity, while R is a methodology with an emphasis on objectivity (McKeown and Thomas 2013). In other words, R methodology (which is one of the dominant methodology in the social sciences) is “based on the correlations of “objective” traits, where persons assume their customary status as “units of analysis” rather than as “variables” in the “transposed” matrix. Q, therefore, differs from R-methodological approaches to the measurement and study of subjective phenomena such as opinions, attitudes, and values” (McKeown and Thomas 2013: xi).

Since the publication of Stephenson’s (1953) seminal work, *The Study of Behavior: Q Technique and Its Methodology*, Q methodology has become widely used in myriad research areas across disciplines such as psychology, political science, sociology, public policy, marketing, economics, discourse, sustainable development, conflict resolution, negotiation, public relations, communications, and diplomacy, among others (Kinsey and Kelly 1989; Goldman 1999; Carlson and Hyde 2003; McKeown and Thomas 2013; Brown 2006). In these and other fields, scholars have found Q methodology to be valuable in shedding light on people’s views about complex issues.

Q methodology is an appropriate approach for this research study for several reasons. First, Q methodology provides a straightforward, quantitative approach for evaluating the perceptions and subjectivity of participants, and is particularly useful when the topic of interest is
complex and contentious. Thus, it meets the requirements for examining the beliefs of a small
group of high-level decision makers about IPPPs in Costa Rica. Second, Q is not aimed at testing
hypotheses, but rather seeks to shed light on and bring a sense of coherence to research questions
that have “potentially complex and socially contested answers” (Watts and Stenner 2005: 77),
such as the ones in this study. Although R methodologies (e.g., survey research) and
experimental trials can reveal information about participant beliefs, they are less well suited to
revealing how perspectives “hang together,” that is, where there are areas of agreement and
disagreement in participants’ overall views. The identification of polar beliefs and common
ground was particularly necessary in this study to make determinations about areas of contention
and consensus as well as potential avenues and strategies that decisions makers can take to move
forward. Finally, Q methodology can be implemented quickly, which was important given the
time constraints of the participants in the sample. Moreover, data from Q studies are difficult to
manipulate, which means that the results cannot be easily manipulated for political purposes.

To use Q, scholars proceed through five steps: (1) creating a concourse (the population of
items relevant to a topic); (2) developing the Q sample (selecting from the concourse the items to
be sorted); (3) forming the P-set (selecting participants); (4) administering the Q sort (the sorting
of the items in the Q sample by participants), and (5) analysis and interpretation. Each of these
steps is discussed below.

Step One: Creating a Concourse

One of the main concepts in Q methodology is the concourse of communication, which
provides the “raw material for Q studies by supplying the self-referent notions informing the
methodology’s perspective on subjectivity” (McKeown and Thomas 2013: 3). The concourse,6

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6 The word concourse originates from Cicero’s practice and usage of the word concursus, a term: “designating a
steam of ‘consciousness’ and running together of thoughts, and conscire, which pertains to shared knowledge (scio
which is the equivalent to a target population for sampling in traditional research, represents the full set or range of views that exist on a single topic, and may include either linguistic or non-linguistic materials (Kinsey 2017). Although most Q studies use linguistic materials, such as essays, statements, or words, nonlinguistic items also have been used, including cartoons (Kinsey 1993 Kinsey and Taylor 1982), photographs (Fairweather and Swaffield 2000; Stephenson 1960; Simpson 1989), movies (Stephenson 1978a), television viewing (Stephenson 1976), marketing and advertisements (Stephenson 1963), music (Wacholtz 1992), smells or aromas (Kim, Kim, and Kim 2003), and political posters or images (Wallenstein 1976).

According to Stephenson (1978b: 24), regardless of whether the materials are linguistic or nonlinguistic, “all subjective communication is reducible to concourses, whether in the sciences, the arts, or any other domain.” Although concourses result from a shared understanding, the items in the concourse are typically are ambiguous, imprecise, or semantically vague, which means they are subject to diverse interpretations. In other words, while people are likely to agree with what is contained within the concourse, the meaning of the items may differ for participants depending on the context and particularities of their subjective views (Kinsey and Kelly 1989; McKeown and Thomas 2013; Stephenson 1980). However, when subjected to Q sorting operations and appropriate statistical analyses (discussed below), concourses can be shown to have form and structure, which in turn can be interpreted and given context-specific meaning (McKeown and Thomas 2013: 17).

**Step Two: Developing the Q Sample**

Once the concourse has been developed, the researcher must select from that population the items to construct a Q sample. As is also the case in R methods, it is often impractical and

= “know” and con = “with”), as in ‘I converse with myself or with you or with others about such and such’’ (McKeown and Thomas 2013: 3).
unfeasible to collect data at the population level; therefore, the concourse (i.e., the population) must be reduced to a sample – called the Q sample – which is ultimately presented to the participants of a study. Numerous scholars (e.g., Baker, McHugh, and Mason 2017; Brown 1980, 1982, 1986, 1993a, 1993b, 1995, 1996a, 1996b; Kinsey 1993; Kinsey and Kelly 1989; Kinsey and Taylor 1982; Stephenson 1953, 1968, 1972, 1977, 1982) have presented different strategies for developing the Q sample to guarantee what Brunswik (1949) calls “stimulus representativeness.” In general, however, the goal of developing the Q sample is to preserve from the concourse a manageably sized set of statements that represent the nature of the larger concourse (Fisher 1960). There is no rule of thumb on how many sample items a study should have, however most studies in the literature have Q sample ranging from 30 to 60 statements.

There are several approaches to building the Q sample. First, one can randomly sample the items in the concourse. This can be done with software or online platforms such as www.random.org. While this approach is easy, an experienced Q methodologist prefers more rigorous thought in sample selection” (Kinsey 2017). Second, one can develop an unstructured sample (Baker et al. 2003; Paige and Morin 2016), in which “items are selected by means presumed to ensure comprehensive coverage without the use of experimental design principles. An unstructured sample, particularly with concourses for which theory is nonexistent or underdeveloped, may provide a reasonable set of statements from which to proceed but runs the risk that some opinions will be under- or oversampled” (McKeown and Thomas 2013: 3). Third, one can develop a structured sample, in which the items “are systematically composed and, given a sufficiently comprehensive and theoretically elaborate experimental design, less likely to incur the doubts of representativeness sometimes raised by unstructured samples” (McKeown and Thomas 2013: 3). Finally, within a structured sample one can use a deductive sampling approach
or an inductive sampling approach. The deductive approach requires the researcher to draw on existing theories (which requires the researcher to know what he testing), while the inductive approach does not require the use of existing theories, either because there are no theories to test or because the research is more focused on the opinions, attitudes and perspectives of the participants with no previous specific set of theories (Baker, McHugh, and Mason 2017; Kinsey 2017; Paige and Morin 2016; Sæbjørnsen et al. 2016).

**Step Three: Forming the P-Set**

Once the Q sample has been developed, the researcher must select the people who will participate in the Q study. These participants are referred to as person samples or *P-sets*. The P-set is typically not randomly selected. Rather, it is a structured and purposeful sample of respondents who “are theoretically relevant to the problem under consideration; for instance, persons who are expected to have a clear and distinct viewpoint regarding the problem and, in that quality, may define a factor” (Van Exel and De Graaf 2005: 6). Thus, the goal in selecting a P-set is to have confidence that the selected participations provide a comprehensive set of perspectives on the issue being studied (Van Exel and De Graaf 2005). Accordingly, a Q study requires only a limited number of respondents to establish clusters of shared opinions reflected by the factors for the purpose of comparing each factor with one another (Brown 1980). Most P-sets have at least ten people, and a robust P-set will have more than forty participants, preferably with five people from each category of perspectives that are relevant to the study (Kinsey 2017).

**Step Four: Performing the Q Sort**

Once the Q sample is constructed, it is administered to the people in the P-set, who are asked to judge the items based on their subjective perspectives. Specifically, the participants are asked to use a score sheet to rank-order the Q sample items in a continuum (usually a quasi-
normal distribution), that specifies one tail as negative (e.g., most insignificant, most unimportant, most uncharacteristic), the middle as neutral, and the other tail as positive (e.g., most significant, most important, most characteristic) (McKeown and Thomas 2013; Watts and Stenner 2012). This rank-ordering procedure is called the Q sort and “serves as an empirical representation, in the most genuine “operational” sense (Bridgman 1927), of an individual’s personal viewpoint on the matter at hand” (McKeown and Thomas 2013: 3).

**Step Five: Analysis and Interpretation**

Once all members of the P-set have individually sorted the Q sample items, each Q sort is entered into a statistical software package that identifies factors. Specifically, the Q sort data consists of inter-correlating the number (n)\(^7\) of Q sorts as variables, and subsequently factor analyzing the \(N \times N\) correlation matrix (McKeown and Thomas 2013; Stephenson 1977). As McKeown and Thomas (2013: 4) explain, the factor analysis of this \(N \times N\) matrix identifies the range and nature of truly independent viewpoints from the participants that are embedded in and are often difficult to distinguish in the vast contours of the concourse. The final set of factors, the numbers and nature of which could hardly be anticipated on hypothetico-deductive grounds, are thus “generalizations” in both statistical and subjective respects. Finally, to probe more fully the character of these viewpoints, a set of factor scores is computed for each, thereby producing a “composite Q sort,” one for each factor.

In other words, the factors “are subjective operants, and a participant’s association with these subjective states is indicated by the magnitude of the factor loadings. Factor scores are then calculated for each Q sample item for each of the factors, producing a parsimonious set of

\(^7\) Capital-N is used to refer to both the number of statements and the number of persons; lower case-n is used to refer to persons (Brunswik 1949).
“composite Q sorts” that distill by a combination of statistical and pragmatic means the basically different viewpoints implicit in the larger concourse” (McKeown and Thomas 2013: 6).

The statistical significance of a factor loading is determined by the standard error of a zero-order loading when \( N \) is the number of Q sample items. In the example \( N = 34 \), McKeown and Thomas (2013: 12) give the expression:

\[
\text{SE}_r = \frac{1}{\sqrt{N}} = \frac{1}{\sqrt{34}} = 0.17
\]

To reach a significance of \( p < .05 \), the loadings in a Q study must exceed \( 1.96 (\text{SE}_r) = \pm .34 \), and for a significance of \( p < .01 \), they must exceed \( 2.58 (\text{SE}_r) = \pm .44 \). “Factor loadings represent correlation coefficients designating the magnitude of a Q sort’s correlation with a factor. They can be positive or negative; negative factor loadings indicate a reversal of the values that positively define a factor” (McKeown and Thomas 2013: 12).

The final part of a Q study – factor interpretation – is perhaps “the most challenging stage of Q methodology for a researcher. [However,] If the researcher is diligent, thorough, and insightful about the issue and makes an effort to learn about the issue before constructing the Q sample, gathering all the perspectives from relevant sources to build the concourse of communication, the statistics are relatively straightforward” (Kinsey 2017). Factor interpretation is done primarily in two ways: (1) by noting the objects that have significant factor loadings, and (2) by focusing on the factor scores of Q sample items that illustrate the factor.

Overall, the task of extracting and understanding the core meanings brought to life in the factors is achieved through attention to “consensual and divergent subjectivity, with a special emphasis on the contextuality principle” (McKeown and Thomas 2013: 6). The goal, as stated by the Nobel laureate Barbara McClintock, is to get a feeling for the organism (see Brown 1989). Kinsey (2017) suggests:
this is more art than science; it requires a thorough understanding of the research topic, the concepts, the context, the institutions, the time pressures, and the people behind the study to facilitate a reasonable explication of the data. What does this perception represent? What does this perception reject? Do they “hang” together? What is the holistic picture here? Who is loaded in each factor? What is their background? Do the participants have consensus on some issues? On which issues are the participants polarized? Which issues don’t matter to them and why?

Asking these and other questions is part of “the hermeneutical task required of all social research,” and “the interpretative expertise of factor results is cumulative; it increases as one continuously engages in Q-methodological research” (McKeown and Thomas 2013: 14).

**Interviews**

Follow up questions are usually placed after the Q continuum so the participants can further explain their ranking process. Most of the time, these questions are sufficient for research purposes. However, in some cases, scholars use interviews to extend, deepen, and help explain the findings from a Q study. In general, post-Q sort interview are used to discover the rationale and drive behind participants’ ordering of the statements (Shemmings and Ellingsen 2012; Wolf 2014). Specifically, the factor arrays alone “may not capture the rationale behind these particular participants’ placement of the statements,” thus, interviews can be used to discover their reasoning (Gallagher and Porock 2010: 296; Wolf 2014). Moreover, it can be as enlightening to explore why statements were placed in positions of less polarity (i.e., -2, -1, 0, +1, +2) as can be to explore why statements were placed at the more polar ends (i.e., +4, +3 -3, -4). The goal of the interview is “not to explore what participants think of the phenomena” but rather to shed light on
the “underlying beliefs and values that lead to a particular stance on the issue” (Gallagher and Porock 2010: 297).

**DISSERTATION RESEARCH DESIGN**

In this section, I first discuss the context and impetus for the research. Next, I discuss the design of my research and how I enacted each of the steps required for a robust Q study, including follow-up interviews.

**Context and Impetus for Research**

On March 11, 2016, the Costa Rican Congress, represented by President Rafael Ortiz, sent a personal invitation to Alvaro Salas-Castro in his capacity as a doctoral student and co-founder of the Democracy Lab, a Costa Rican research think tank, to conduct a study and moderate a roundtable discussion on infrastructure and transportation policies with a specific focus on stakeholder perceptions of Public Private Partnerships. President Ortiz noted that research on PPPs and IPPPs was crucial for understanding how different decision-making groups regard the impacts of Costa Rica’s failing infrastructure on governance, competitiveness, productivity, quality of life, and other development issues in the nation. President Ortiz offered the entire reach, muscle, and a full public relations team from the office of the Costa Rican Congress to make sure the highest quality level of participants would attend the research event (see Appendix 1 for a copy of the invitation).

After discussing the invitation with several of my academic advisors, I decided that this was an opportunity for my dissertation research. Thus, I proposed to conduct a Q study coupled with interviews to better understand stakeholder perceptions of IPPPs in Costa Rica. I accepted the invitation with a few conditions. First, I asked for complete and open access to decision
makers and leaders for data collection purposes. Specifically, I asked for full access to the congress, cabinet, and several other governmental institutions not only for the design and implementation of the roundtable event, but also after the event in case of the need to follow up or ask clarifying questions. Second, I asked for guarantees that the data collected and the results would be used only for academic and legitimate governance purposes, and never for political purposes. Third, I asked that the results of the study be taken seriously, and that they be presented in the National Congress and to the office of the Vice President after my dissertation defense. Finally, I asked for several measures to ensure transparency and accountability, including nationally televising the event and a public presentation of the results to the academic and think tank communities in Costa Rica. The President of Congress and the office of the Vice President of Costa Rica agreed immediately to the conditions.

After working out some details with President Ortiz, I set out to design the study under the guidance of Professors Tina Nabatchi and Dennis Kinsey. The study was approved by the Syracuse University Institutional Review Board (IRB) on April 15, 2016. In the following sections, I discuss the design of the Q study and the interview process used in this research.

**Design of the Q Study**

As noted above, Q studies proceed through five steps: (1) creating a concourse; (2) developing the Q sample; (3) forming the P-set; (4) administering the Q sort, and (5) analyzing and interpreting the results. I discuss these steps for my study below.

**Step One: Creating the Concourse.** The goal in creating the concourse is to include as many perspectives to attempt answer the research questions. As Brown (1993a: 95) states, “From concourse, new meanings arise, bright ideas are hatched, and discoveries are made: it is the
wellspring of creativity and identity formation in individuals, groups, organization and nations, and it is Q methodology’s task to reveal the inherent structure of a concourse – the vectors of thought that sustain it and which, in turn, are sustained by it.”

To create the concourse of communication, or the full set or range of views that exist on IPPPs in Costa Rica, I conducted a systematic literature review, including an analysis of journalistic pieces and reports, and interviewed ten practitioners, academics, and policy think-tank researchers. The purpose of the interviews was to make sure I captured the most relevant issues surrounding IPPPs in Costa Rica from a broad range of perspectives. The interviews, which ranged in length from twenty to sixty minutes, were conducted with: (1) Dr. Victor Umaña, Director of the Center for Sustainable Development and Competitiveness in Latin America; (2) Dr. Luis Guillermo Loria, Director of the Infrastructure and Transportation Policy think tank from University of Costa Rica; (3) Alexander Mora, Minister of Foreign Trade and Commerce; (4) Luis Javier Castro, CEO of Mesoamerica Investments (the largest private equity firm in the region); (5) Dr. Laura Alfaro, Professor of Business at Harvard Business School; (6) Abril Gordiennko, Founder of Poder Cuidadano YA! (Citizen Power Now!); (7) Dr. Roberto Artavia, President of the think tank VIVA Trust and INCAE Business School; (8) Theo Metzger, Co-founder of Movete por tu Cuidad (Move for your City); (9) Mayor Edgar Mora Altamirano, Mayor of Curridabat and Harvard Ash Fellow; and (10) Geoffrey Finch, Resident Advisor, Office of Technical Assistance, Department of Treasury, United States Government, Embassy of United States in San José, Costa Rica. I also drew on my personal knowledge and experience

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8 This included over sixty academic reports, twenty business and economic development reports, thirty journalistic and opinion pieces from local and international newspapers, and two Estado de la Nación (state of the nation) reports.
gained from an independent study on PPPs with Professor David Van Slyke, as well from my participation in several academic and business-oriented conferences and roundtables on PPPs.

For this study, I needed to include perspectives on infrastructure policy, public-private partnerships, competitiveness, and economic development, since these topics were identified as being crucial in literature review. In building the concourse, I included statements drawn from (a) topics and concepts in the literature, (b) topics, questions, comments, jokes, criticisms, and other issues articulated by the experts, policy-makers, and business leaders during the interviews, (c) articles about the citizen riots in main newspapers, (d) opinion editorials from experts, (e) comments and takeaways from the international and national symposiums, summits, and academic conferences related to the research questions, and (f) congressional depositions and round tables. The final concourse contained over two hundred potential statements about IPPPs.

**Step Two: Developing the Q Sample.** The second step is to generate a Q Sample, or select a set of statements that are representative of the larger concourse (Baker, McHugh, and Mason 2017; Kinsey 2017; McKeown and Thomas 2013; Paige and Morin 2016; Saebjørnsen et al. 2016; Stephenson 1978b). There is no hard or fast rule for building the Q sample and determining how many statements to include. Rather, the size of the Q sample is dictated by the complexity of the issue and the study at hand. That said, the overall goal is to build a Q sample that has items representing the various possible views and opinions on the issue.

To build the Q sample for this study, I clustered statements from the concourse that captured similar themes or concepts. Six themes emerged, including: (1) competitiveness and productivity; (2) governance, including transparency, accountability, and management; (3) safety and reliability of transportation infrastructure; (4) sustainable development; (5) public participation; and (6) quality of life. I then used a mix of inductive approaches (based on theories
from the literature) and deductive approaches (based on the comments from interviews) to confirm that these themes were representative of the broader concourse and select the statements. In the final form, the Q sample consisted of 32 statements that were randomly numbered, and the Q continuum was developed as a quasi-normal flattened distribution with the tails (most unimportant (-4), most important (+4)) open to only two statements. I selected this number of statements and this distribution to better understand points of polarization and consensus among the stakeholders. The 32 statements are provided in Table 1.

**Table 1: Statements of the Q Study**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The funding source for the infrastructure project is transparent</td>
</tr>
<tr>
<td>2</td>
<td>Infrastructure projects should enable people to have more family or leisure time</td>
</tr>
<tr>
<td>3</td>
<td>Infrastructure projects should reduce road rage and stress and increase productivity</td>
</tr>
<tr>
<td>4</td>
<td>The project must ensure reliability of the roads</td>
</tr>
<tr>
<td>5</td>
<td>Conflicts among the stakeholders are discussed</td>
</tr>
<tr>
<td>6</td>
<td>There is a balance between private and public interests</td>
</tr>
<tr>
<td>7</td>
<td>The private sector takes the lead in designing and operating infrastructure projects</td>
</tr>
<tr>
<td>8</td>
<td>National infrastructure provision laws are aligned with the national development strategy</td>
</tr>
<tr>
<td>9</td>
<td>The costs do not outweigh the benefits</td>
</tr>
<tr>
<td>10</td>
<td>Costa Rica has a comprehensive plan to invest in cleaner transportation and smarter cities</td>
</tr>
<tr>
<td>11</td>
<td>Citizens feel their input on infrastructure projects will be used by decision making authorities</td>
</tr>
<tr>
<td>12</td>
<td>Citizens are consulted on price increases for using public assets</td>
</tr>
<tr>
<td>13</td>
<td>Advocates are given the opportunity to make their case for a particular action to other stakeholders</td>
</tr>
<tr>
<td>14</td>
<td>Infrastructure projects include clear and sustainable investment development metrics</td>
</tr>
<tr>
<td>15</td>
<td>Transportation infrastructure projects improve the competitiveness and development of Costa Rica</td>
</tr>
<tr>
<td>16</td>
<td>The communities affected in the project are accurately represented and part of the decision making process</td>
</tr>
<tr>
<td>17</td>
<td>Citizens are equipped with knowledge and information about the role of infrastructure in national competitiveness and development</td>
</tr>
<tr>
<td>18</td>
<td>The general public accepts the winner of the project bid</td>
</tr>
<tr>
<td>19</td>
<td>Citizens are involved in decision making through a respectful dialogue process</td>
</tr>
<tr>
<td>20</td>
<td>Government is responsible for designing, administering, financing, and implementing infrastructure projects</td>
</tr>
<tr>
<td>21</td>
<td>The design and implementation of infrastructure projects are aligned with the National Development goals (i.e. Carbon Neutrality)</td>
</tr>
<tr>
<td>22</td>
<td>Transportation projects include clear mechanisms for conflict resolution among the government, business sector, and organized citizen groups</td>
</tr>
<tr>
<td>23</td>
<td>Citizen viewpoints are given special consideration in the design and implementation of infrastructure projects</td>
</tr>
<tr>
<td>24</td>
<td>Costa Rica has the human and technical capital to overcome challenges involving transportation infrastructure policies and construction</td>
</tr>
<tr>
<td>25</td>
<td>Infrastructure design processes have measurable outcomes and provide accountability to the general public</td>
</tr>
<tr>
<td>26</td>
<td>A diversity of viewpoints are included in transportation infrastructure policy processes</td>
</tr>
<tr>
<td>27</td>
<td>The opinions of national and international experts are given more weight in the decision making processes</td>
</tr>
</tbody>
</table>
**Step Three: Forming the P-Set.** Large numbers of participants are not required for a robust and effective Q study. Q methodology aims to reveal and elucidate some of the main opinions, position, beliefs, and viewpoints that are favored by and special to a particular group of individuals participating in a given study. According to Stainton-Rogers (1995), Q studies are most effective when the participant group contains between 40 and 60 individuals. This is only a ‘rule-of-thumb’, however, for highly effective Q studies can be carried out with far fewer participants. As stated by Watts and Stenner (2005: 79) “A salient viewpoint might, of course, be revealed by reference to a single participant. If, on the other hand, we want to demonstrate that this viewpoint is shared by several persons in ‘the group’, and hence to make sense of our subject matter (rather than a specific individual) on the basis of such a consistency, we must evidently move beyond the single case.”

The goal in forming the P-Set was to develop a purposeful sample of the stakeholders engaged in transportation policy and public and private partnerships, both of which are part of the most contentious debate on the Costa Rican national development and policy agenda (Font 2013; Gonzalez 2013). To recruit participants for the study, the Office of Public Relations and Outreach of the Costa Rican National Congress, in partnership with The Democracy Lab, developed a list of the most important, relevant, and influential representatives from government, the private sector, civil society, academia, and the media, and sent an invitation via email and follow up by telephone (see Appendix 2 for the invitation letter to participants from the President of Congress.) Fifty invitations were issued. All of the invitees attended the event and forty-nine completed the study. Table 2 lists the participants and their affiliations (one person did not indicate the professional affiliation). Figure 1 displays the distribution of the Q study participants across the sectors.
<table>
<thead>
<tr>
<th>Name</th>
<th>Position, Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federico Jenkins Noveno</td>
<td>Managing Partner, CCA Abogados</td>
</tr>
<tr>
<td>Ethel Abarca Amador</td>
<td>Senior Policy Advisor to the President, Presidency of Costa Rica</td>
</tr>
<tr>
<td>Beatriz Slooten</td>
<td>Senior Fellow think tank CLADS, INCAE</td>
</tr>
<tr>
<td>Vidal Monge Corrales</td>
<td>Member, CCAI (Chamber of Architects and Engineers)</td>
</tr>
<tr>
<td>Raquel Arriola G.</td>
<td>Coordinator of the Normative and Technical Update Unit, LanammeUCR</td>
</tr>
<tr>
<td>Gian Carlo Mazzali</td>
<td>President of the Board, National Institute of Trains and Railroad</td>
</tr>
<tr>
<td>Geannina Solo N.</td>
<td>Country Manager, Central American Development Bank</td>
</tr>
<tr>
<td>Carlos Campos</td>
<td>Coordinator of the Municipal Management Unit, LanammeUCR</td>
</tr>
<tr>
<td>Esteban Roberts</td>
<td>Chief Operating Officer, UBER – Central America</td>
</tr>
<tr>
<td>Jorge Vasquez</td>
<td>Professor and Researcher, University of Costa Rica</td>
</tr>
<tr>
<td>José Dengo Garron</td>
<td>Founder, Amega</td>
</tr>
<tr>
<td>Manuel Dengo</td>
<td>Director, CDG</td>
</tr>
<tr>
<td>Olman Vargas</td>
<td>Director, CFIA</td>
</tr>
<tr>
<td>Roberto Acosta</td>
<td>Owner, H Solis Construction Company</td>
</tr>
<tr>
<td>Roberto Levi</td>
<td>General Director, Costa Rica Public Policy Program</td>
</tr>
<tr>
<td>Rafael Ortiz</td>
<td>President, Legislative Assembly – Congress</td>
</tr>
<tr>
<td>Rolando Levi Z.</td>
<td>Founder and Senior Partner, Consortium Legal Law Firm</td>
</tr>
<tr>
<td>Roberto Artavia</td>
<td>Chairman of the Board, INCAE Business School</td>
</tr>
<tr>
<td>Otton Solis</td>
<td>Member, Legislative Assembly; former Minister and Presidential candidate; founder, Citizen Action Party; Professor, University of Costa Rica</td>
</tr>
<tr>
<td>Natalia Diaz</td>
<td>Congresswoman and Presidential Candidate Libertarian Party</td>
</tr>
<tr>
<td>Jorge Rodriguez</td>
<td>Deputy, Legislative Assembly</td>
</tr>
<tr>
<td>Julio Sanchez</td>
<td>Advisor to the President of Congress</td>
</tr>
<tr>
<td>Carlos Rodriguez Herrera</td>
<td>Deputy, Legislative Assembly</td>
</tr>
<tr>
<td>Benjamin Piza Arrieta</td>
<td>CINDE (Costa Rican Investment and Development Coalition)</td>
</tr>
<tr>
<td>Gerardo Corrales</td>
<td>Former CEO, Bank San José</td>
</tr>
<tr>
<td>Javier Chavez</td>
<td>Invitee from the office of the President of Congress</td>
</tr>
<tr>
<td>Yansy Vargas Solis</td>
<td>Chief of Staff, Congressman Otton Solis</td>
</tr>
<tr>
<td>Rolando E. Orlich3</td>
<td>Foro de Occidente, co-founder</td>
</tr>
<tr>
<td>Marianne Hutt C.</td>
<td>Senior Researcher and Co-Founder, SENFAT</td>
</tr>
<tr>
<td>Ilianna Aguilar</td>
<td>Director, CCAI (Chamber of Architects and Engineers)</td>
</tr>
<tr>
<td>Max Sittentald</td>
<td>Executive Vice-president and Senior Lead Engineer, MECO - Construction Company</td>
</tr>
<tr>
<td>Benjamin Vargas M</td>
<td>Sustainable Development Manager, Cuestamoras Private Equity</td>
</tr>
<tr>
<td>Oscar Arce</td>
<td>Director, CCAI (Association of Architects and Engineers)</td>
</tr>
<tr>
<td>Walter Robinson Davis</td>
<td>Senior Policy Advisor, LanammeUCR; former congressman</td>
</tr>
<tr>
<td>Diana Jiménez Romero</td>
<td>Coordinator of the Road Safety and Transport Unit, LanammeUCR</td>
</tr>
<tr>
<td>José David Rodriguez</td>
<td>PITRA Technical Auditor, LanammeUCR</td>
</tr>
<tr>
<td>José P. Aguiar</td>
<td>Coordinator of the Materials and Pavements Unit, LanammeUCR</td>
</tr>
<tr>
<td>Mauricio Chacón</td>
<td>Regional Manager, Central American Development Bank (BCIE)</td>
</tr>
<tr>
<td>Mónica Araya</td>
<td>Executive Director and Founder, Costa Rica Limpia (think tank)</td>
</tr>
<tr>
<td>Manuel E. Uya</td>
<td>Senior Staff Costa Rican National Congress</td>
</tr>
<tr>
<td>Luis E. Loria</td>
<td>Founder and Chairman, Institute for Social Development (think tank)</td>
</tr>
</tbody>
</table>
Of the fifty participants, eight were from the government sector, including the President of Congress; the heads of political caucuses; senators and from various political parties including two presidential candidates; the senior policy advisor to the President of Costa Rica and the Vice Minister of Public Works and Public Transportation; and the Chairman of the board of directors for the Instituto Costarricense de Ferrocariles (Costa Rican Institute for Railroads). The goal in selecting government representatives was to have a wide range of leaders from the major
political parties and political ideologies, from the libertarian party to the social democrats, and different stakeholders in the transportation policy and PPP arena.

A total of sixteen representatives from the private sector participated in the event, including CEOs, senior executives, and leaders in the main development banks in Costa Rica and the Central American region; the CEOs and Vice Presidents of the main construction companies in the country; the CEOs and financial analysts of investment banking firms; senior partners of the largest law firms in Costa Rica and in the region; and owners and senior executives from construction, design and planning firms, among others.

A total of ten representatives of non-for profits and civil society were also part of the study. These participants, who also best represent citizen views, included the directors and representatives of different interest groups such as the Chambers of Commerce and Construction, Engineering, and Architecture organizations; the Chairman of the Costa Rican Private Competitiveness Council; and the Executive Directors and from the most relevant think tanks focused on transportation policy, sustainable development, and competitiveness. In addition, representatives from the most active organizations and associations in transportation policy issues also participated, including the Executive Director and Founders of Foro de Occidente (Occidente Forum), the co-founder of Movete por tu Cuidad (Move for your City), the Founder and Executive Director of Costa Rica Limpia (Clean Costa Rica), and the President of the think tank IDEAS (Institute for Economic Development and Social Action).

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9 Foro de Occidente (Occidente Forum) was created after a $524 million concession was given to the Brazilian construction firm OAS to build the San Ramón Highway. In November 2012, the contract was sent for approval to the General Comptroller Office, binding the partnership between OAS and the Costa Rican government. This project was one of the most important PPPs in the country; however, it was boycotted by citizen demonstrations, and the Costa Rican government had to respond to damaging lawsuits for not complying with the execution terms of the agreement. The country ended up with no road expansion, citizens distrusting the concession process, and an institutional crisis in the field of transportation infrastructure policy (Gonzales 2013; Trejos 2016).
The thirteen academic participants included the Deans and Chairpersons of the main public and private universities; professors and leading scholars on PPPs and infrastructure policy; and senior researchers from university think tanks, such as the Executive Director of LANAME-University of Costa Rica and his senior researchers, and coordinators of the research units on transportation, infrastructure, and road safety. Some of those former academics, lecturers or researchers were Ministers from the Ministries of Public Works and Public Transportation, mayors, former and current presidential candidates and former cabinet members.

Finally, one journalist who specializes in transportation policy and PPPs attended as a participant. More than a dozen people from different print, broadcast, and social media outlets attended the event as journalists and covered the event live.

**Step Four: Administering the Q Sort.** The Q sort was conducted as part of a larger roundtable event about infrastructure and PPPs in Costa Rica. The entire event, which took place on Thursday, April 21, 2016 from 9:15 am to 12:45 pm, was nationally televised live. The event took place at the Salón de Expresidentes (as) de la República (Former Presidents Auditorium) at the Costa Rican National Congress, the place where “the most relevant and policy meetings take place for new projects, reforms, and inter-sectoral dialogues” (Ortiz 2016).

The event opened with a brief explanation of the agenda by the Director of Public Relations of the National Congress of Costa Rica, as is the tradition when events are nationally televised. Next, the President of the National Congress, Mr. Rafael Ortiz Fabrega, provided remarks and stated that this Q study was of national interest and that it was “imperative to find consensus, avenues of common interest and strategies to tackle the infrastructure deficit and the discontent and lack of trust among the private, public sectors, and the citizenry.” I then provided

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10 LANAME is the leading transportation and infrastructure policy think tank in the country.
a presentation about the purpose, concepts, and instructions pertaining the Q study. I also
provided each participant with an oral consent form, as is the custom in Costa Rica for this type
of events and as is required by IRB. Each participant was given instructions, along with a stack
of the 32 statements in the Q sample and a score sheet with brief follow up questions. The
participants were asked to sort the 32 statements from the “most unimportant” (-4) to the “most
important” (+4), record their sorting on the score sheet, and answer some brief questions. They
also had the option of providing an email address so that I could contact them later to ask them
about their sort. (Please see Appendix 3 and score sheet that were provided to participants.)

The Q sort process took approximately 45 minutes. Following the sorting activity, I
collected all of the score sheets. Next, there were several brief presentations by (a) Dr. Roberto
Artavia, Chairman of the board of INCAE; (b) Ing. Luis Guillermo Loria Salazar, Director of the
technical unit of the infrastructure policy research lab from University of Costa Rica-LANAMME; (c) Dr. Tina Nabatchi, Associate Professor, Maxwell School of Syracuse
University; (d) Dr. David Van Slyke, Dean and Professor, Maxwell School of Syracuse
University; and (e) Ing. Mauricio Gonzalez, Vice-Minister of Public Transportation and
Concessions. After the presentations, I moderated a roundtable during which the participants
engaged in open discussion with the audience. During that discussion, I took notes to better
understand how and why participants sorted the statements the way they did, and to identify
additional perspectives on transportation infrastructure policy.

**Step Five: Analyzing and Interpreting the Results.** Upon returning to Syracuse, I typed
up all of my notes from the event and entered the score sheets into PCQ, a software program that
conducts the factor analysis needed for a Q study. An analysis of the correlations revealed the
existence of seven factors; however, only three factors loaded with Eigenvalues over 3.5, which
is the accepted cutoff for factors in Q methodology. Thus, the factor analysis suggested that the participants’ views on IPPPs in Costa Rica were captured by three different factors (Factors A, B, and C).

Next, I examined the factor correlations: Factor A and Factor B were correlated at .35; Factor A and Factor C were correlated at .22; and Factor B and Factor C were correlated at .29. These low correlation scores indicate that the factors are distinct from one another, and that different groups of participants hold different perspectives on the issue of IPPPs in Costa Rica. This result is not only a characteristic of a good a Q study, but also suggests that purposeful sampling strategy for developing the P-set was successful. In short, the factor analysis suggests that the participants have very different visions of how, why, and what Costa Rica should do to cope with the infrastructure crisis.

Interviews

Before I completed my analysis and interpretation of the factors, I felt that it was important to gather additional insights from the participants and from other leaders not included in the Q study. To do so, I conducted follow up interviews with eighteen people, including six participants in the Q study and twelve individuals who did not participate in the Q study.

In selecting Q study participants for interviews, I searched for those who were heavily loaded into a factor or particularly neutral in their sorts. Using these criteria, I selected six participants: (1) Luis Guillermo Loria Salazar (Director of LANAMME); (2) Congressman Otton Solis; (3) Congressman Rafael Ortiz; (4) Monica Araya (from the nonprofit, Costa Rica Limpia); (5) Paul Brenes (from the nonprofit, Foro de Occidente); and (6) Benjamin Vargas (from Cuesta de Moras Private Equity Group). My goal was to ask questions to better understand their perceptions of IPPPs and why they sorted the statements the way they did.
In addition, I conducted in-depth interviews with twelve notable leaders, decision-makers, practitioners, and experts who did not participate in the Q study, but who have a keen understanding of the subject matter locally and internationally. My goal was to validate and better understand the findings, and to gain additional information about potential strategies to address the challenges of IPPPs in Costa Rica. I also wanted to further validate the relevance and accuracy of the perspectives that emerged from the Q study. To this end, I interviewed: (1) Ana Helena Chacon, Vice President of Costa Rica; (2) Dr. Victor Umana, Executive Director of the INCAE think tank, Center for Competitiveness and Sustainable Development; (3) Marco Vinicio Ruiz, former Minister of Trade and Commerce; (4) Dr. Alberto Trejos, Economic Development Professor; (5) Dr. Federico Villalobos, a technical expert in PPPs and contracts; (6) Dr. Roy Barrantes, Engineer at LANAMME; (7) Diego Bosque, an infrastructure policy journalist from the national newspaper La Nación; (8) Alfonso Liao, Partner at Facio Cañas Law Firm and specialist in public administration and IPPPs; (9) Carlos Arguedas Vargas, Partner at Consortium Legal and specialist in IPPPs; (10) Diana Jimenez, Board of Director of the Costa Rican Institute of Trains; (11) Elias Soley, partner Soley Saborio Attorneys Law Firm and a specialist in competitiveness, information communication technology, and PPPs; and (12) Otto Guevara, Founder of Libertarian Party and Congressman. All interviews were translated from Spanish to English and transcribed into a word document format. The interviews were then coded and used to supplement the findings from the Q study.

POTENTIAL LIMITATIONS: ISSUES OF VALIDITY IN Q STUDIES

Before moving on to the next chapter and the presentation of findings, it is useful to briefly discuss validity issues in Q studies. Social science researchers use the term validity “to
refer to the approximate truth of an inference,” or “the extent to which relevant evidence supports that inference as being true or correct” (Standish, Cook, and Campbell 2002: 34). However, “Assessing validity always entails fallible human judgments. We can never be certain that all of the many inferences drawn from a single experiment are true or even that other inferences have been conclusively falsified. That is why validity judgments are not absolute; various degrees of validity can be invoked. … This same criticism is, of course, true of any other method used in social sciences, from case study to the random sample survey. No method guarantees the validity of an inference” (Standish, Cook, and Campbell 2002: 34).

Although studies employing Q methodology have been subject to validity-related criticisms, several scholars dismiss these issues. For example, Brown (1980: 174) claims that “the concept of validity has very little status [in Q studies] since there is no outside criterion for a person’s own point of view.” Similarly, Brouwer (1992: 3) asserts, “traditionally, validity has not been an issue in Q.” Likewise, Stephenson (1983) argues that validity should not be the first criteria of scientific research when Q methodology is used, but rather that validity should sometimes “give way to the goal of reaching new understandings as a litmus test of scientific acceptability. In consequence, reliability issues, as usually framed, are relegated to a tertiary, perhaps even trivial, role in appraising Q’s epistemological assets” (cited in Thomas and Baas 1992: 20).

Other scholars, however, provide more nuanced examinations of validity issues in Q research, and suggest that those issues might depend on the context of the study (e.g., D’Agostino 1984; Thomas and Baas 1992). For example, Karen E. Dennis (1992: 39) writes that “validity in Q methodology refers more to the ability of individuals to accurately share their perspectives on the subjective phenomenon under investigation, and to the researcher’s ability to
accurately elucidate and portray the subjectivity expressed.” Dennis (1992: 40) continues by noting that although Q methodology is a high-level statistical method, it shares interesting aspects of qualitative research and their approaches to ensure validity:

It [Q method] involves the determination of equivalence of meaning between the researcher and the participants. This is the tactic that ethnographic researchers use when they bring their conceptual interpretation of the data back to their informants and ascertain whether the informants can corroborate the meaning and identity themselves in the categories that emerge from the data. Q-methodologists likewise use this technique during follow-up interviews when they elicit in-depth comments from participants about some of the specifics of their Q sort, and later when they ascertain whether these individuals can identify with one of the factor arrays.

From their perspective, Thomas and Baas (1992: 21) believe that more should be done to help Q methodology become more mainstream in social sciences: “Increasing the stature of Q in the eyes of those who are not already avowed adherents would seem a worthy enough outcome.” To do so, they recommend addressing issues of validity in Q studies and encourage practitioners and academics to learn from one another and compare notes to improve validity or at least mitigate mistakes when assessing a particular complex policy issue in different settings. Thus, rather than dismiss validity concerns, I instead discuss three forms of validity that are particularly important within the context of this study: (1) construct validity, (2) internal validity, and (3) external validity. In the following sections, I address each of these issues and the threats within them, and explain the steps I took to address these concerns.
Construct Validity

Construct validity refers to the degree to which a test measures what it claims to be measuring (Brown, J.D. 1996; Cronbach and Meehl 1955). The primary concern of construct validity is whether inferences legitimately can be made from how concepts were operationalized in a study. Construct validity can be thought of as a labeling issue, or perhaps more accurately a “truth in labeling” issue: it is an assessment of how well ideas or theories were translated into actual programs or measures. It is whether “the instrument can be reasonably said to represent the area of phenomena concerned” (Brouwer 1992: 2).

In the context of Q studies, construct validity pertains most directly to the concourse of communication and the Q sample. Some scholars suggest that the issue of construct validity is of little concern in Q studies given that Q studies are more interested in “statements of problems” than with “statements of facts” (e.g., Expositor 1992 Stephenson 1984), and that statements of problems advance knowledge “by extending and illuminating the range of meanings to which facts apply” (Thomas and Baas 1992: 20). Following this reasoning, Thomas and Baas (1992: 21) note, “Similarly structured, yet different Q samples, when administered to different persons, should yield factors whose underlying meanings convey reliable schematics” (Thomas and Baas 1992: 21). That is, when the concourse of communication and subsequent Q sample in a particular study are developed through systematic, detailed, thorough, and extensive means, the study is more likely to have construct validity. Following this argument, several scholars assert that construct validity concerns can be mitigated if researchers work to ensure that the concourse of communication (i.e., the universe of items to be sorted) is comprehensive, and that they systematically select a Q sample that is representative of the concourse (Fisher 1960; McKeown and Thomas 2013; Thomas and Baas 1992).
I worked to address issues of construct validity early in this study. Specifically, I conducted a comprehensive, systematic literature review and interviewed experts to develop the concourse of communication, which contained over 200 statements. Through clustering of the concourse statements, I identified six overarching themes (competitiveness and productivity, governance, safety and reliability, sustainable development, public participation, quality of life). I then used both inductive approaches (drawing on the literature) and deductive approaches (drawing on the expert interviews) to select statements for the Q sample. In doing so, I attempted to ensure that the Q sample statements were representative of both the broader concourse and the broader issues associated with IPPPs in Costa Rica.

**Internal Validity**

Internal validity refers to the extent to which a causal conclusion from a study is warranted (Brewer and Crano 2000; Standish, Cook, and Campbell 2002). The strength of inferences about cause-effect or causal relationships is, in large part, determined by the degree to which a study minimizes systemic error or bias. Although internal validity is most relevant in studies that try to establish a causal relationship, which is not necessarily the case in Q methodology, it is useful to discuss the issue of selection bias, which is arguably the primary threat to internal validity in this study.

Selection bias, also sometimes called the selection effect, is an experimental error that occurs when the participant pool, or the subsequent data, is not representative of the target population to be analyzed (Standish, Cook, and Campbell 2002). It can be introduced when the individuals, groups, or data for analysis are not randomly selected, and can raise doubts about the accuracy of the inferences or conclusions in a study. Selection bias threatens validity in sample research, but can be countered with measures such as random selection of participants, and
developing sample sizes that lend themselves to greater predictability and statistical power (e.g., Standish, Cook, and Campbell 2002; Jaccard and Jacoby 2010). While Q methodology has been subject to several critiques related to selection bias, most Q scholars push back on a number of fronts.

Specifically, scholars point out that Q methodology is a method for small sample research that provides an empirical approach to the study of human subjectivity, that is, the method caters to the examination of the subjective perceptions, opinions, and beliefs of the participants in the study. Thus, the internal validity of a Q study requires the researcher to have confidence that the selected participants (i.e., the P-set) represent the full range of perspectives on the issue under investigation. While random sampling could certainly be used to develop the P-set, it often makes more sense to engage in structured and purposeful sampling to curate a list of participants who are “theoretically relevant” to and “expected to have a clear and distinct viewpoint” on the problem (Van Exel and De Graaf 2005: 6). For example, if a researcher wants to explore perceptions on gun control, she may want to ensure that her P-set includes gun owners, NRA lobbyists, gun assault victims or their families, mental health specialists, physicians, activists from all sides of the issues, and so on. While one might argue that this approach encourages selection bias, Q scholars would assert that those biases are exactly what Q studies attempt to explore. For these reasons, it is more important to have a P-set with individuals that “have skin in the game” (Kinsey 2017), than it is to engage in random selection.

In this study, I followed the advice of Q methodologists to mitigate the issue of selection bias. Specifically, my goal in this study was to understand the perceptions and beliefs of elite decision makers and experts on the issue of IPPPs in Costa Rica. Given that this study was conducted in partnership with the office of the President of the Costa Rican Congress, I was able
to ensure the creation of a systematic, purposeful sample of fifty high-level individuals who have significant influence on this issue. Thus, the sample size was in line with that required for effective Q studies (Baker et al. 2017; Paige and Morin 2016; Saebjørnsen et al. 2016), and included the target population for the investigation (cf. Kinsey 2017; Van Exel and De Graaf 2005).

External Validity

External validity refers to inferences about whether “the cause-effect relationship holds over variation in persons, settings, treatment variables, and measurement variables” (Standish, Cook, and Campbell 2002: 38), and can be assessed with the question, “to what populations, settings, treatment variables, and measurement variables can this effect be generalized” (Campbell 1957: 297; Campbell and Stanley 1963: 5). The primary threats to external validity in this study are replicability and generalizability, which are related, but distinct concepts. Replicability refers to the repeatability of findings; it implies that if a study were conducted with the same group a second time, it would yield the same results. Generalizability refers to the broader applicability of findings; it implies that findings can be transferred to situations or people other than those studied. Replicability and generalizability are threats to the external validity of a study (and particularly survey research) and can raise doubts about the accuracy of its inferences or conclusions (Jaccard and Jacoby 2010; Standish, Cook, and Campbell 2002).

Pushing back on claims that concerns about replicability and generalizability are “irrelevant for Q’s scientific status,” Thomas and Baas (1992: 21) argue that Q methodology could become more mainstream in social sciences if “more systematic data were compiled to demonstrate the replicability of Q studies.” Moreover, Thomas and Baas (1992: 20) assert that “there remains the (often implicit) assumption that given certain conditions, the results of Q
studies are replicable.” Moreover, scholars assert that potential issues with external validity can be mitigated through the use of interviews with non-participants to ensure that the factors emerging from the study reflect the full range of views on an issue (Gallager and Porock 2010; Dennis 1993; Watts and Stenner 2012).

Once again, I followed the advice of Q methodologists (e.g., Gallager and Porock 2010; Dennis 1993; Watts and Stenner 2012) to address external validity concerns, and I interviewed both participants and non-participants to ensure that the factors emerging from the study reflect the full range of views on an issue. Specifically, after the Q study, I interviewed several important figures in the Costa Rica IPPP debate, including six participants and twelve non-participants. The interviews with the participants helped me to better understand the perceptions embedded in the factors, while the interviews with the non-participants confirmed the cogency and accuracy of the factors.

One final note about replicability and generalizability is warranted. Specifically, the problems and challenges associated with IPPPs in Costa Rica (Font 2013) are quite similar to those experienced in other Latin American countries and in other developing countries around the world (Diaz 2015; Sala-i-Martin 2014). Specifically, most Latin American nations (and many developing nations around the world) struggle with infrastructure deficits (Diaz 2015; Sala-i-Martin 2014), and many of these deficits arguably center around the six themes identified from the concourse and used to shape the Q sample. Moreover, high-level decisions makers in these nations, like those in this study, share differences in terms of scopes of power, access to information, aversion to risk, and incentives in IPPPs. In other words, it is likely that the views of decision makers in this study echo the views of decision makers in other nations. Of course, additional research is needed to ascertain the strength of this claim.
In sum, I addressed concerns about construct, internal, and external validity, in several ways. Specifically, to mitigate construct validity issues, I paid close attention to the development of the concourse of communication and the Q sample. I worked to address internal validity and selection bias through efforts to select a representative P-set in accordance with guidelines about sample sizes. Finally, I addressed external validity issues through interviews of both participants and non-participants, and argue that commonalities between Costa Rica and other Latin American countries (and perhaps even other developing countries) in terms of infrastructure deficits and IPPPs increase the likelihood of generalizability. Together, these steps not only help address a variety of validity concerns, but also make the findings of this study more robust.
As noted in the previous chapter, I address four research questions in this study: (1) What do public officials and leaders believe are the most important things to consider when designing an IPPP for a highway construction project in Costa Rica? (2) What are the most contentious issues in developing and implementing IPPPs? (3) Are there areas of consensus among the representatives from various decision-making groups? (4) Given the areas of contention and consensus, what avenues and strategies can be used to support effective implementation of transportation policy and IPPPs?

To address these questions, I conducted a Q study that revealed three factors, each of which offers a unique perspective about transportation policy and IPPPs in Costa Rica. I also conducted in-depth interviews with Q study participants and non-participant experts to triangulate the findings, elucidate potential trends, patterns, and cultural or local and international issues, and reveal potential blind spots not covered by the Q study participants. In this chapter, I present my findings for the first three research questions. I organize these findings into categories that reflect the content of those research questions: (1) important considerations, (2) contentious issues, and (3) areas of consensus. In the final chapter, I draw on these findings and additional evidence to address the final question, which pertains to avenues and strategies for effective implementation.

IMPORTANT CONSIDERATIONS

My first research question asked, “What do public officials and leaders believe are the most important things to consider when designing an IPPP for a highway construction project in
Costa Rica?” The three factors revealed in the Q study (Factors A, B, and C) suggest the participants held three different views on IPPPs. To elucidate the three factors, I gave each a descriptive title: (1) Factor A: Productivity and the Private Sector, not Participation, (2) Factor B: National Competitiveness and Development Strategies, and (3) Factor C: Citizen Participation, Transparency, and Public Benefits. Of 49 participants, 31 heavily loaded into one of the three factors at the $p < .01$ level (16 in Factor A, 10 in Factor B, and 5 in Factor C), and 47 heavily loaded into one of the three factors at the $p < .05$ level (20 in Factor A, 14 in Factor B, and 13 in Factor C). Below, I discuss each factor. I conclude this section by drawing on interview data from non-participants to discuss other considerations not well illustrated in the three factors.

**Factor A: Productivity and the Private Sector, not Participation**

Before interpreting Factor A, “Productivity and the Private Sector, not Participation,” it is interesting to note that half of the sixteen participants who loaded into it at the $p < .01$ represented the private sector. With that in mind, it is perhaps not surprising that Factor A is more concerned with economic-oriented values than it is with politically-oriented values. More specifically, the participants in Factor A ranked the statements pertaining to development, competitiveness, conflict resolution, productivity, and responsibility as most important, and the statements concerning diversity of views, government responsibility for leading projects, community review, dialogue and understanding as most unimportant. Table 3 lists the statements that were ranked as most important (+4, +3) and most unimportant (-4, -3) in the factor.

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11 As noted in chapter three, the analysis revealed a total of seven factors, but only three factors (Factors A, B, and C) had Eigenvalues over 3.5, which is the cutoff in Q studies. The three factors also had low correlations, suggesting that each factor explained a different perspective on IPPPs. Specifically, Factors A and B correlated at .35, Factors A and C correlated at .22, and Factors B and C correlated at .29.
Table 3: Most Important and Most Unimportant Statements in Factor A

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<thead>
<tr>
<th>Most Important Statements (+4, +3)</th>
<th>Most Unimportant Statements (-4, -3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. National infrastructure provision laws are aligned with the national development strategy.</td>
<td>21. A diversity of viewpoints are included in transportation infrastructure policy projects.</td>
</tr>
<tr>
<td>15. Transportation and infrastructure projects improve the competitiveness and development of Costa Rica.</td>
<td>27. Government is responsible for design, administering, financing, and implementing infrastructure projects.</td>
</tr>
<tr>
<td>31. Transportation projects include clear mechanisms for conflict resolution among the government, business sector, and organized citizen groups.</td>
<td>12. The broader community gets a chance to review the project and/or policy decision.</td>
</tr>
<tr>
<td>3. Infrastructure projects should reduce road rage and stress and increase productivity.</td>
<td>26. Citizens are involved in decision making through a respectful dialogue process.</td>
</tr>
<tr>
<td>23. Infrastructure project decision makers take responsibility for their decisions and actions afterwards.</td>
<td>22. All parties involved and the general public understand national laws for concession and PPP projects.</td>
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The qualitative data from the responses of participants who loaded heavily into this factor to the open ended questions on the Q study score sheet further reinforce this interpretation of Factor A. For example, the former CEO of BAC San José (the largest private bank in Central America) wrote: “It’s imperative to design a vision as a country that ultimately uses IPPPs to enable and enhance efficiency and competitiveness as the final objective.”

Another participant, Mr. Max Sittenfield, the Executive Vice-President of MECO, one of the largest private infrastructure companies in Central America and one of the winners of the bid that executed the expansion of the Panama Canal, one of the largest IPPP’s projects in the world wrote (Estrategia y Negocios 2016), “transportation is the key for development and our laws don’t have the readiness required.” He claimed that government is the root cause of the infrastructure deficit in Costa Rica because “government doesn’t work with readiness.” Similarly, José Dengo, from Omega Holdings, a private equity firm wrote, “It’s not important who is in charge of implementing the projects, what is important is that the projects are executed.
in a transparent and efficient manner. In Costa Rica we waste too much time in pointless ideological debate.”

Data from the interviews also buttress this interpretation of Factor A. For example, Dr. Luis Guillermo Loria, Director of LANAMME (an infrastructure policy think tank at the University of Costa Rica and one of the leading scholars in transportation and IPPPs in the Latin American region), confirmed that this perception is widely held in the private sector. However, he also noted that the lack of citizen participation is one of the main causes of citizen protests and boycotts against large scale infrastructure projects and IPPPs such as the San Ramón Highway, repeatedly pointing out that “the citizens distrust the processes and especially the pricing models of the tolls” because they are never engaged (Loria 2017).

The presence of Factor A is not particularly surprising, as private companies (and governments) have been reluctant to involve citizens in infrastructure or in transportation IPPP projects both in Costa Rica and globally (Dannin 2011; Geddes 2015) adducing that incorporating many voices would be inefficient (cf. Boyer, Van Slyke, and Rogers 2015). For example, the legal scholar on IPPPs Ellen Dannin (2011) argues that decision-makers from private sector and others involved in the design of IPPP contracts consider citizens merely to be the price takers of a toll. She further asserts that this view is both undemocratic and risky because it undermines the legitimacy of the IPPP agreement and creates distrust among the citizens, who at the end of the day have the capacity to boycott the IPPP project. Nevertheless, this view favoring performance and efficiency values over democratic values is often noted in the literature on IPPPs (e.g., Boyer, Van Slyke, and Rogers 2015; Geddes 2015), public participation (e.g., Nabatchi 2012; Nabatchi and Leighninger 2015), and public administration more broadly (Nabatchi 2012) and IPPPs (e.g., Gaebler and Osborne 1992; Osborne and Gaebler 1993).
Factor B: National Competitiveness and Development Strategies

The participants loading into Factor B were the most diverse. Specifically, of the 10 who loaded into this factor at the p < .01 level, 3 were from the private sector, 2 were from government, 2 were from civil society, 2 were from academia, and 1 was from media. The overarching theme of Factor B is well captured by its descriptive title, “National Competitiveness and Development Strategies.” Specifically, the participants in this factor ranked statements pertaining to national competitiveness, national development, and development goals, along with human and technical capital, and cleaner transportation and smarter cities as being most important. They ranked statements concerning public acceptance of the bid, discussion of conflicts, diversity of views, citizen input, and trust-building as most unimportant. Table 4 lists the statements in the factor ranked as most important (+4, +3) and most unimportant (-4, -3).

Table 4: Most Important and Most Unimportant Statements in Factor B

<table>
<thead>
<tr>
<th>Most Important Statements (+4, +3)</th>
<th>Most Unimportant Statements (-4, -3)</th>
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<tbody>
<tr>
<td>15. Transportation and infrastructure projects improve the competitiveness and development of Costa Rica.</td>
<td>25. The general public accepts the winner of the project bid.</td>
</tr>
<tr>
<td>9. National infrastructure provision laws are aligned with the national development strategy.</td>
<td>5. Conflicts among the stakeholders are discussed.</td>
</tr>
<tr>
<td>30. The design and implementation of infrastructure projects are aligned with the national development goals (i.e., Carbon Neutrality).</td>
<td>21. A diversity of viewpoints are included in transportation infrastructure policy projects.</td>
</tr>
<tr>
<td>7. Costa Rica has the human and technical capital to overcome challenges involving transportation infrastructure policies and construction.</td>
<td>18. Citizens feel their input on infrastructure projects will be used by decision making authorities.</td>
</tr>
<tr>
<td>17. Costa Rica has a comprehensive plan to invent in cleaner transportation and smarter cities.</td>
<td>11. There is a collegial and trustworthy environment among stakeholders.</td>
</tr>
</tbody>
</table>
Although there is some alignment between Factors A and B, particularly in terms of the importance of competitiveness and development, there are also many important differences. First, participants in both factors believe the cogent alignment of infrastructure projects with the national development agenda is crucial to building and sustaining economic development and a competitive edge for Costa Rica. However, the participants in Factor A are more concerned with outcomes and the participants in Factor B are more concerned with taking a strategic approach to thinking about IPPPs within the context of national development goals, human and technical capital, and comprehensive city planning. Moreover, while participants in both factors reject the need to include a diversity of viewpoints, those in Factor B place much less emphasis on (i.e., rank as most unimportant) the social capital aspects of IPPPs, such as public acceptance, conflict resolution, citizen input, and the development of trust. Finally, the factors also diverge in terms of who loaded into each factor: Factor A is composed almost entirely of participants from the private sector, while Factor B is composed of participants from all sectors. The responses of Mr. Esteban Roberts, Chief Operating Officer of UBER, to the open ended questions on the Q study score sheet well reflect the similarities and differences between Factors A and B. He wrote: “I strongly believe that our country has the capital (human and technical) to work on projects that will improve our competitiveness. Our problem is not lack of this capital, but how to effectively channel these resources into concrete actions and laws if necessary.” Moreover, he ranked citizen participation in the decision-making process as unimportant and suggested that “involving too many voices in IPPPs” can jeopardize the efficiency of the process.

The responses to the open ended questions on the Q study score sheet of participants further reinforce the interpretation of Factor B (and how it differs from Factor A). For example, Dr. Roberto Artavia, President of VIVA Trust, one of the largest impact investment funds in the
region, and expert in sustainable development and strategic planning, noted that IPPPs are necessary to improve the economic development of Costa Rica, but there is a need to clearly define metrics, inputs, outputs, and key performance indicators. Moreover, he suggested that IPPPs in Costa Rica lack clear and sustainable development investment metrics, and that “comprehensive metrics including financial, economic, social and environmental are fundamental for sound decision-making.”

Another participant, Ms. Beatriz Slooten, a Senior Fellow at the Center for Sustainable Development and Latin American Competitiveness (CLACDS) based at INCAE Business School, suggested that the design and implementation infrastructure projects should be aligned with the National Development goals and enable people to have more family and leisure time. Moreover, she wrote that “the ultimate objective of infrastructure must be social progress and wellbeing for the people. [And,] planning projects must be aligned to a broader idea that includes a long term vision.” Accordingly, she emphasized that the government should be in charge of crafting the national development strategy but that it must work in consultation with key decision-makers and undertake an active role in supervising and regulating the processes.

Finally, the Vice-Minister of the Minister of Public Works and Transportation, Mauricio Gonzalez, echoed this concern. Specifically, he asserted that government is not the ideal project developer – “far from it” – but that government must provide accountability and transparency to general public and enable infrastructure design processes that have metrics and measurable outcomes. These issues, which hint to the importance of citizen participation, are better reflected in Factor C.
Factor C: Citizen Participation, Transparency, and Public Benefits

Factor C, “Citizen Participation, Transparency, and Public Benefits,” is most strongly supported by people from academia and civil society. All five participants who loaded into this factor at the \( p < .01 \) level were from academic institutions; however, several participants from civil society organizations loaded into this factor at the \( p < .05 \) level. As compared to the other factors, Factor C is far more oriented toward the public and what might be considered more politically-oriented values. Specifically, the participants ranked as most important statements pertaining to family and leisure time, competitiveness and development, transparency, citizen dialogue, and national development goals. They ranked as most unimportant statements concerning conflict, public acceptance, advocacy, costs, and social capital. Table 5 lists the statements that ranked as most important (+4, +3) and most unimportant (−4, −3) in the factor.

<table>
<thead>
<tr>
<th>Most Important Statements (+4, +3)</th>
<th>Most Unimportant Statements (−4, −3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Infrastructure projects should enable people to have more family or leisure time.</td>
<td>5. Conflicts among the stakeholders are discussed.</td>
</tr>
<tr>
<td>15. Transportation and infrastructure projects improve the competitiveness and development of Costa Rica.</td>
<td>25. The general public accepts the winner of the project bid.</td>
</tr>
<tr>
<td>1. The funding source for the infrastructure project is transparent.</td>
<td>13. Advocates are given the opportunity to make their case for a particular action to other stakeholders.</td>
</tr>
<tr>
<td>26. Citizens are involved in decision making through a respectful dialogue process.</td>
<td>10. The costs do not outweigh the benefits.</td>
</tr>
<tr>
<td>30. The design and implementation of infrastructure projects are aligned with the national development goals (i.e., carbon neutrality).</td>
<td>29. The Minister of Public Transportation builds social capital through infrastructure transportation policies.</td>
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</table>

Factors A and C can be directly contrasted with each other, particularly in terms of how the participants understand efficiency and its facilitators. For example, the participants in Factor
A explicitly reject any form of citizen participation in the design or execution of an IPPP, claiming that it would delay project execution, and therefore be inefficient. In contrast, the participants in Factor C seem to suggest that process and project efficiencies can be gained through participation and transparency, as these can help legitimize the process and the IPPP and reduce risks in the execution phase. This latter claim aligns with recent research showing the benefits of civic engagement in IPPPs, particularly in terms of process legitimization and the identification of potential risks prior to the execution of the contract (Boyer and Van Slyke 2018). At present, however, Costa Rican concession laws do not require citizen input before the request for proposal (Villalobos 2017).

Responses to the open ended questions on the Q study score sheet reinforce this interpretation. For example, Luis Guillermo Loria, Executive Director of LANAMME, wrote, “Civic engagement and stakeholder participation in infrastructure PPPs is a must for the success of the projects. Some of the falls on infrastructure projects has occurred due to the lack of transparency and not taking in consideration the citizens criteria. The 27 [the code used by IPPPs technocrats for the San Ramón Highway] was chosen since Costa Rica needs urgently to have a public policy on infrastructure that collects the agreements of all political, technical, actors and citizens.” Similarly, the Country Manager of the Central American Development Bank (BCIE), Mauricio Chacón, wrote, “citizens should be taken in consideration.”

Representatives from citizen groups and nonprofit organizations echoed this view. For example, Paul Brenes, leader of Foro De Occidente, the civic organization that challenged the San Ramón Highway IPPP (Diaz 2015; Font 2013; Ruiz and Fernandez 2015), suggested that “decision makers should value citizen perspectives since at the end of the day [they] are the end users of the public assets.” Teo Mezger, an activist and manager Movete por tu cuidad (Move
for your city), wrote: “the first step should be the creation of a comprehensive plan, which involves all the stakeholders and their interests. The public participation in this process is very important to argue the success of the project and its acceptance.” Finally, Roberto Guzman, founder of the citizen movement Chepe Cletas (slang for San José on a bicycle), wrote that new infrastructure projects should enable people to have more leisure time, and that the communities affected should be accurately represented and take part in the decision-making process.

**Other Considerations Not Illustrated in the Three Factors**

As the discussions above showed, the interview data from both the participants and non-participants reinforced the interpretations of the three factors. However, the non-participants also discussed several important issues that were not well-illustrated in the factors but that must be considered when designing a public and private partnership for a highway construction project in Costa Rica.

Specifically, the non-participants’ responses to the first research question were very similar, and three common issues emerged. First, the respondents claim that a radical change in citizens’ perceptions of IPPPs is needed. At present, the interviewees claimed, most citizens believe that IPPPs will benefit only private enterprise, which will get rich at the expense of (and indeed on) taxpayers’ money. Thus, it is necessary to start educational campaigns that explain the benefits IPPPs can bring. Second, first world roads require expropriations, because there are no derechos de paso (rights of way), and that process is extremely slow. There also will be other expenses for citizens. As Alfonso Liao, Partner at Facio Cañas Law Firm and specialist in public administration and IPPPs, said, “if the citizens want a first level service they will have to pay for it.” Finally, there is a need to develop a coordinating unit that has the scope, capacity, and legal mandate to be a go-between for all the parties involved. As Dr. Federico Villalobos, a technical
expert in PPPs and contracts, noted, this coordinating unit could help articulate roles, mitigate power imbalances and the lack of trust among different entities, and otherwise build the kind of strategic partnership needed to assist with (and reduce the time of) project implementation and concession adjudication periods.

These views were well captured and summarized by Congressman Otto Guevara from the Libertarian Party, who provided one of the most straightforward and candid replies:

There is an urgency for deep administrative changes and reforms in the way the MOPT works. The criterion of appointment into these crucial positions for the development of the country is cronyism and high-level public managers do not know anything about public administration. IPPPs are very good, but there are problems and mistakes in both the gestation and in the planning process of the projects due to lack of human capital and negligence of our authorities and ignorance from the citizens that confuse IPPPs with privatization and Costa Ricans are allergic to the word privatization.

CONTENTIOUS ISSUES

My second research question asked, “What are the most contentious issues in developing and implementing IPPPs?” To address this question, it is useful to first draw on interview data, and particularly the responses of non-participants, then to reflect on the three factors.

In the interviews, non-participants identified three broad areas of contention. First, they asserted that there was controversy surrounding how IPPPs affected citizen’s pockets, particularly in terms of the costs of the tolls, lack of transparency in pricing models, and high expropriation costs. Second, they asserted that wide-spread distrust among stakeholders was
exacerbated because of few avenues for conflict resolution, and that citizen unrest was, at least in part, due to a lack of channels for public participation. They pointed to the San Ramón highway project as the perfect illustration of how these issues had serious negative impacts on the project development. Finally, they pointed to the broad and general incapacity of past administrations to address anything related to public transportation (e.g., buses, taxis, metro, trains), and all of the consequent social, political, and environmental costs. Moreover, they claimed that Costa Rica is now experiencing the snowball effect of years and years of negligent officials, corruption scandals, distrust, and inefficiency, and asserted that the costs of these mistakes have been transferred to the citizens in the form of high-priced users’ fees.

While the factors do not speak directly to these issues, one can easily see the issues embedded in the them. Specifically, the factors show several areas of contention, all of which center on what might be thought of as the means-ends relationship in IPPPs. In general, participants in Factors B and C are more concerned with means – or the processes – of IPPPs. For example, Factor B reflects participants’ belief in the necessity of strategic approaches that align infrastructural and developmental needs. This sentiment was well captured by José Aguiar, Professor at the University of Costa Rica, who noted in his score sheet, “Infrastructure should respond to the needs of society, as well as to the development of the country, consequently all efforts should be aligned to meet the national goals.” Factor C is also concerned with means, albeit different ones. Specifically, Factor C reflects participants’ belief in the necessity of participatory processes and citizen engagement, which, according to Felipe Castro, “is vital [as] it either creates a solution or bigger problems.”

In contrast, participants in Factor A are more concerned with the ends – or outcomes – of IPPPs because, as Federico Jenkins, CEO of a management consulting firm, noted,
“Infrastructure is negatively impacting short and long term wellbeing of the population, reducing investment, jobs, quality of life, and impacting the environment.” Thus, for example, although participants in all factors were concerned with competitiveness and development, those in Factor A also wanted to see conflict resolution, increased productivity, and more responsibility as outcomes. Diana Jimenez, Professor at the University of Costa Rica and a member of the Board of Directors at the National Institute of Trains, identified several other important outcomes: “Transportation projects should be executed in way that improves the quality of life of the citizens, mitigating transaction costs using better accountability practices and corporate governance to maximize social welfare.” Similarly, Rolando Laclé, a senior partner in a corporate law firm, wrote “Infrastructure should be tool to improve the life of Costa Ricans and the competitiveness and development of Costa Rica. In contrast, participants in Factor B seem to have the least concern with outcomes, ranking statements involving social capital outcomes such as public acceptance, conflict resolution, diversity of included views, legitimacy, and trust, as being the most unimportant.

Another means-end contention centers on citizen engagement: those in Factor A explicitly rejected participation as a means to an end, suggesting that leads to inefficiencies (a bad outcome), while participants in Factor C belief that participation serves as a means to more efficiencies. This contention was echoed by all of the non-participants I interviewed. Specifically, all of the non-participants spoke of the information asymmetries between the public and private sectors and the citizens, and all agreed that access to reliable and easy to understand information was fundamental so the general public can understand IPPPs. However, some suggested that citizen participation should be present only in the first stage of the project when
the contract is designed, whiles other suggested the creation of arbitration or conflict resolutions mechanisms to mitigate disputes later in the IPPP process and avoid citizen protests.

**AREAS OF CONSENSUS**

My third research question asked, “Are there areas of consensus among the representatives from various decision-making groups?” When designing this study, I thought this would be an important question to ask. My hunch was confirmed by the interviews with the non-participants. In all of those interviews, respondents noted that for IPPPs to work, the different public transportation services (taxis, buses, trains), as well as public entities, the private sector, and the citizenry, would have to coordinate, but that such dialogue was currently inexistent. Moreover, they asserted that to create a sound policy based on national development plans, there had to be some sort of common ground on the strategy and tactics. Thus, they spoke of the need for empirical studies to evaluate potential areas of common ground so that there can be discussion based on facts and not on the antagonistic political rhetoric that is exacerbated by the lack of trust among decision-makers. Fortunately, the Q sorts reveal some interesting areas of consensus on IPPPs in Costa Rica.

In Q methodology, a consensus item is a statement that scores the same on all factors, and therefore that elicits a shared subjectivity regarding its importance or lack thereof among all participants. “The identification of a consensus item is rare, but when it happens, it is incredibly useful for public communications and strategy campaigns” (Kinsey 2017). In this study, there was one consensus item. Specifically, statement 15 (“Transportation and infrastructure projects improve the competitiveness and development of Costa Rica”) – was ranked as the most important (+4) in all three factors.

There were also five areas of agreement among the factors, that is, statements that were
ranked either as most important (+4, +3) or most unimportant (-4, -3) in two of the three factors. For example, in both Factor A and Factor B, participants ranked statement 9 (“National infrastructure provision laws are aligned with the national development strategy”) as being most important, and statement 21 (“A diversity of viewpoints are included in transportation infrastructure policy projects”) as most unimportant. Similarly, participants in Factor B and Factor C ranked statement 30 (“The design and implementation of infrastructure projects are aligned with the national development goals, i.e., carbon neutrality”) as most important. They also ranked two statements as most unimportant, including and statement 25 (“The general public accepts the winner of the project bid”) and statement 5 (“Conflicts among the stakeholders are discussed”). Table 6 shows the statement numbers for the consensus item and the areas of agreement among the factors, and Table 7 lists the statements themselves.

It is interesting to note that all of the most important statements concern the development of Costa Rica, while all of the most unimportant statements concern what might be considered the social aspects of IPPPs, such as including diverse views, public acceptance, and discussion of conflicts. Thus, it appears that while all parties agree that IPPPs should be used to promote and enhance national development and competitiveness, there is less agreement on other goals for IPPPs. This concurrence on the importance of IPPPs for development was captured by many participants. For example, Roberto Acosta, Executive Vice President of the HSOLIS construction company wrote, IPPPS are important “because [the] design, build, finance, operation, and maintenance [of IPPPs] is the solution for the Costa Rican infrastructure development.” Similarly, Oscar Arze Villalobos, a representative of both the business and civil society sector noted, “The key most important aspect of the social impact of infrastructure is value creation, and within that, infrastructure is key to competitiveness, smoothing and paving
the way to all sorts of economic and social transactions to be more efficient.” Finally, Olman Vargas, Executive Director of the Federal Engineers and Architects Association, wrote, “It is of fundamental importance that infrastructure is linked to the country objectives.”

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<th>Table 6: Statements of Consensus and of Agreement</th>
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<tr>
<td><strong>Most Important</strong></td>
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<td><strong>Most Unimportant</strong></td>
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<td>Factor B</td>
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<th>Table 7: Statements Representing Consensus Items and Areas of Agreement</th>
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<td><strong>Most Important</strong></td>
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<tr>
<td>9. National infrastructure provision laws are aligned with the national development strategy **</td>
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<tr>
<td>30. The design and implementation of infrastructure projects are aligned with the national development goals, i.e., carbon neutrality **</td>
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<td><strong>Most Unimportant</strong></td>
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<td>25. The general public accepts the winner of the project bid **</td>
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<td>5. Conflicts among the stakeholders are discussed **</td>
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Note: *** = consensus item ; ** = area of agreement

This sentiment was also reflected in the interviews with non-participants. For example, Vice President Ana Helena Chacón said, “There is consensus on the need to improve the infrastructure either way as a crucial component for national development and competitiveness.
Vice President Chacón further asserted that IPPPs were “important … because a government with no money or capacity to raise capital or even raise more taxes will not be able to execute road infrastructure. The only feasible short to medium term way is making IPPPs work properly.” Similarly, Dr. Alberto Trejos, Economic Development Professor, President of the Arias Peace Foundation, Former Minister of Trade and Commerce, and Founder of the Costa Rican Investment Coalition, said “It seems there is consensus on the why among the different stakeholders, policy makers and decision-makers to improve economic development and competitiveness and the country infrastructure through IPPPs. Nevertheless, there is no common ground on the how or what and there is not data or evidence to set a potential agenda based on issues that we all agree or at least that we know there exist.” Together, the consensus item and the areas of agreement suggest some areas on which leaders might establish common ground, thus informing the final research question: Given the areas of contention and consensus, what avenues and strategies can be used to support effective implementation of transportation policy and IPPPs? I address this question in the final chapter.
CHAPTER 5
RECOMMENDATIONS AND CONCLUSION

In the previous chapter, I discussed the findings pertaining to the first three research questions. It is useful to summarize those findings before turning to my final research question. First, what do public officials and leaders believe are the most important things to consider when designing a public and private partnership for a highway construction project in Costa Rica? The Q study reveals three factors, each of which sheds light on a different perspective on IPPPs. Specifically, those in Factor A, “Productivity and the Private Sector, not Participation,” believe the focus of transportation policy and IPPPs should be on productivity, with more participation from the private sector rather than the government, and without the hassles of citizen participation. The participants in Factor B, “National Competitiveness and Development Strategies,” want a more strategic approach to IPPPs, seeking the alignment of multiple activities with multiple goals all centered on national development and competitiveness. Finally, those in Factor C, “Citizen Participation, Transparency, and Public Benefits” favor what might be considered the human side of IPPPs, with a focus on citizen participation, transparency, and public benefits.

Second, what are the most contentious issues in developing and implementing IPPPs? The interviews with the non-participants suggest three broad areas of contention: (1) costs to citizens and lack of transparency, (2) widespread distrust exacerbated by a lack of mechanisms for conflict resolution and citizen participation, and (3) the historic neglect of public transportation policy. Further analysis of the factors revealed additional contentious issues, which generally center on the means-ends relationship in IPPPs, and specifically on strategy, participation, and outcomes.
Third, are there areas of consensus among the representatives from various decision-making groups? Further examination of the factors shows that there was a single consensus statement and 5 statements that represented areas of agreement, two of which were ranked as most important (+4, +3) and three of which were ranked as most unimportant (-4, -3). All of the most important statements, including the consensus item and two areas of agreement, concern the development and competitiveness of Costa Rica, while the most unimportant statements concern more social aspects of IPPPs, such as inclusion of diverse views, public acceptance, and discussion of conflicts. Thus, it appears that while parties agree IPPPs should be used to promote and enhance national development and competitiveness, there is less agreement on other goals for IPPPs.

In this chapter, I address my final research question: Given the areas of contention and consensus, what avenues and strategies can be used to support effective implementation of transportation policy and IPPs? Clearly, the results for my third research question about areas of consensus suggest that a focus on national development and competitiveness, as well as on national development goals, could be a starting point for conversations about IPPPs in Costa Rica. The identification of such common ground is particularly important given the context of Costa Rica, where there has been (and continues to be) bitterness and distrust among IPPP participants and stakeholders.

However, several issues result in the need for more than a foundation for conversation to guide the near-term actions of stakeholders in regard to IPPPs. On the one hand, it appears that private sector capital for infrastructure public service delivery is not only necessary, but also may be one of the few viable short-term options the country has to cope with infrastructure deficits. However, Costa Rica has critical structural problems that must be addressed by the authorities to
advance IPPPs and transportation policy. As noted throughout this dissertation, the lack of trust among the stakeholders in the private, public, and civil society sectors, coupled with the eroding trust from international credit agencies and regional development banks has elevated interest rates, created a deteriorating business climate, and ultimately, put the country at risk. Moreover, the government lacks the capacity to execute funds and loans and is unable to raise taxes through a comprehensive fiscal package or more debt (since the country already reached their debt limits). Finally, Costa Rica depends heavily on foreign direct investment, and must remain competitive to international companies to provide high quality jobs. In the last decade, however, unemployment rates have risen, crime related to drug cartels have become a potent threat, and corruption scandals related to IPPPs have tested the rule of law and democratic institutions.

On the other hand, despite the need for IPPPs, the rhetoric among the different stakeholders in Costa Rica, particularly in the national media or public forums has been contemptuous and politically charged. Pointing fingers and insulting each others has become a national sport. There is a need to address those perceptions, opinions, values, and beliefs in ways that enable decision-makers to better understand opinions and to better craft potential avenues and strategies to build trust. As used in this study, Q methodology helped assist with those goals: during the session at the Costa Rican National Congress, key stakeholders were able to engage in conversation without toxic rhetoric. Moreover, the results of the study showed that stakeholders have more in common than they thought, though frustrations and disagreements still exist.

Given the structural and rhetorical problems surrounding transportation policy and IPPPs in Costa Rica, I draw on data from the Q study score sheets and the interviews with participants and non-participants to identify three additional avenues and strategies that have potential to support effective implementation of transportation policy and IPPPs: (1) Reform the governance
structure of the Ministry of Public Works and Transport (MOPT) and create enabling legislation that facilitates the use of IPPPs, (2) Build trust among the stakeholders by improving the capacity and human capital of MOPT and by using public participation, and (3) Use modern, more advanced public relations strategies centered on the two-way symmetrical model of communication at the very beginning of the IPPP process. Each of these three strategies are interrelated, that is, they work together and reinforce one another. Moreover, each strategy feeds back into the overall strategy of focusing on national development and competitiveness. I discuss each strategy separately below.

**STRATEGY 1: REFORM MOPT AND CREATE IPPP ENABLING LEGISLATION**

All of the non-participant interviewees, and many of the score sheet comments from Q study participants, claimed that the Ministry of Public Works and Transport (MOPT) is inefficient and requires extensive reform and restructuring. Specifically, several participants asserted that the MOPT needs a complete overhaul of its governance structure, including the closing of inefficient entities and the elimination of some of the main councils, while other participants asserted that the legal framework under which MOPT operates needs to be revamped, including changes to MOPT’s authorization and enabling legislation. In both cases, there was broad agreement that without reforms to the governance structure and legal framework of the MOPT, Costa Rica is “doomed to fail” in infrastructure provision (Solis 2016b). Together, these two claims, reinforced by the research on IPPPs, give rise to the first strategy: *Reform the governance structure of MOPT and create enabling legislation that facilitates the use of IPPPs.*
In general, governance denotes “the act of governing, or how actors use processes and make decisions to exercise authority and control, grant power, take action, and ensure performance—all of which are guided by sets of principles, norms, roles, and procedures around which actors converge” (Emerson and Nabatchi 2015: 15). Those principles, norms, roles, and procedures, along with the organizational structure itself, constitute a governance structure. In Costa Rica, the governance structure of MOPT is quite complex. Founded in 1860 as a General Directorate of Public Works, the current functions of MOPT were consolidated in 1971. Over the next few decades, the functions of MOPT were decentralized through the creation – by law – of several different councils, including:

- Civil Aviation Technical Council (CETAC), Law No. 5150 (June 06, 1973)
- Road Safety Council (COSEVI), Law No. 6324 (May 25, 1979)
- National Council of Concessions (CNC), Law No. 7762 (May 22, 1998)
- National Road Council (CONAVI), Law No. 7798 (May 29, 1998)
- Public Transportation Council (CTP), Law No. 7969 (January 28, 2000)
- National Port Council (CPN), Executive Decree No. 28617-MOPT (May 12, 2000)

Each council has a board of directors, which is chaired by the MOPT Minister or an appointed delegate.

According to several interviewees, these councils not only acquired several of MOPT’s direct tasks, but also were given almost total independence. While decentralization and independence were intended to increase the efficiency of public work, they also generated communication and collaboration gaps between the minister and the different councils, as well as between the Ministry and the public (Barrantes 2014; Bosque nd; Loria Salazar 2017b; Ruiz and Fernandez 2015; Villalobos 2017). Moreover, they resulted in lengthy bureaucratic processes.
that limit the creation of consensus and the ability to reach effective and efficient agreements (Loria 2017). Many of the interviewees agreed that the biggest obstacle for MOPT is the independence of its several councils (Chacon 2016; Guevara 2016; Loria 2017; Ortiz 2016; Solis 2016b; Villalobos 2017). For example, Mr. Rafael Ortiz, Deputy of the Legislative Assembly (2014-2016) and Legislative President (2015-2016), and presidential candidate of Christian Social Unity Party (PUSC) remarked, “Twenty years ago, MOPT heads thought that infrastructure development will be more efficient if different functions were decentralized, and as a consequence, these councils were created. The councils would not be subject to our controls (given our nature of interventionist state), but as a consequence, the MOPT was weakened [and] without a decision center. Also, many strategic functions are under-staffed, while other unproductive things are over-staffed.”

In an effort to improve this situation, the MOPT Minister reached an agreement with the Ministro de la Presidencia (the President’s Chief of Staff) in 2010 to create three Vice-Ministry seats, each of which would take responsibility for a different division and a different set of councils. Specifically, the Vice Ministry of Land Transport and Road Safety took responsibility for the Transport Division, as well as the Road Safety Council (COSEVI) and the Public Transport Council (CTP). The Vice Ministry of Air and Maritime Transportation took responsibility for the Maritime-Port Division, as well as the Civil Aviation Technical Council (CETAC) and the National Port Council (CPN). Finally, the Vice Ministry of Infrastructure and Concessions took responsibility for the Public Works Division, as well as the National Road Council (CONAVI), and the National Concessions Council (CNC).

Under this new structure, all of the Vice Ministries have some kind of responsibility for infrastructure; however, two councils – CONAVI and CNC, both of which are under the Vice
Ministry of Infrastructure and Concessions – have considerable power when it comes to Costa Rica’s road network. Specifically, CONAVI is responsible for planning, programming, managing, financing, executing, and controlling both the construction and conservation of the national road network, in accordance with the programs developed by the MOPT Planning Department. CNC is in charge of managing concessions and projects for public works and services – and particularly the road network – with transparency, quality, and security. Thus, when it comes to the development of the road network infrastructure (regardless of the delivery process), consensus must be reached – at a minimum – among the Minister of MOPT, the Vice Minister of Infrastructure and Concessions, and the two councils, CONAVI and CNC, both of which have boards of directors and maximum independence. This leaves the Minister “between a rock and a hard place” with no authority over major IPPP decisions (Loria Salazar 2017b).

This MOPT structure causes several other problems. First, it generates complex, hierarchical decision-making processes. Second, it is very difficult to incorporate non-state actors, such as non-profits, civic associations, and civil society organizations, into the decision-making processes, and particularly the processes for IPPPs. Third, it dilutes citizen input, which aggravates their distrust and resentment. Finally, it exacerbates values conflicts, information asymmetries, and power imbalances among all of the stakeholders.

The challenges of MOPT’s governance structure are worsened because the nation lacks a strong legal framework governing IPPPs. First, the law does not require the MOPT to gather public input and learn the public’s perspective prior to the awarding of the IPPP contract. Consequently, the Ministry engages only in what is known as the “first model of public relations theory,” a rather undemocratic effort in which the Ministry seeks to inform and persuade the public without presenting any scientific research (Grunig 1976, 2001).
Second, depending on the nature of the project, IPPPs in Costa Rica are subject to two different laws, the concession law and/or the administrative contract law (Villalobos 2017). Each law applies to different types of contracts and assets. However, given that these laws were developed decades ago (when the nation’s predominate exports were bananas and coffee), they do not always align with the types of contract and assets put forward today (when the nation’s top export is medical devices (https://atlas.media.mit.edu/en/profile/country/cri/). The challenges in determining which law applies when, leads to numerous legal and managerial debates, and creating more “unnecessary jargon that is difficult to understand even for specialist” (Villalobos 2017).

Finally, the current legal framework for IPPPs is not aligned with national development strategies, with current political, economic, social, and environmental needs, or with modern democratic practices such as public participation.

Together, the challenges with the MOPT governance structure and legal frameworks create unnecessary obstacles in the IPPP process. Thus, one strategy that could support effective implementation of transportation policy and PPPs is to reform the governance structure of MOPT and create enabling legislation that facilitates the use of IPPPs. Several interviewees had concrete ideas about how to implement this strategy: shut down CONAVI and CNC and replace them with the new IPPP unit that is being discussed in the national congress (e.g., Ortiz 2016; Solis 2016a, 2016b; Villalobos 2017). PPP units are hybrid entities that function with autonomy and are funded by state funds and sometimes by private organizations (Geddes 2015). For many interviewees, an IPPP unit with the autonomy, scope, and resources, and with personnel who are evaluated by their credentials and performance, would be an asset to the nation. As one interview remarked, Costa Rica has been “extremely successful with this model in other areas such as the
creation of units to attract foreign direct investment CINDE (the Costa Rican Coalition Investment Promotion Agency), which has been ranked as one of the best ones in Latin America by the World Economic Forum or PROCOMER, an entity that promotes international exports of Costa Rican products” (Trejos 2017). The Ministry of the Presidency could look to the model PPP units in Ireland, a nation that is similar to Costa Rica in terms of the size and capabilities of its economy.

While the interviewees held strong views, other approaches to reform also should be considered, and more research is needed to determine how best to recalibrate the MOPT governance structure. Nevertheless, the importance of an effective governance structure cannot be underestimated. An appropriate and strong governance structure improves decision-making, accountability, transparency, and coordination of resources and human capital, all of which are critically important for IPPPs (Geddes and Wagner 2013). Indeed, examples of the effective use of IPPPs enhanced by well thought out governance structures can be found in countries such as Norway, Australia, the United Kingdom, and South Korea (Van Slyke 2016).

However, part of the challenge is that when it comes to PPPs (and IPPPs), governance implies something different from the traditional hierarchal model found in government. It connotes a “cooperative state, where state and non-state actors participate in mixed public/private policy” (Börzel and Risse 2005: 2). PPPs require governments to relinquish (or at least lessen) their reliance on hierarchical governance mode, to share decision making with a variety of non-state actors including the for-profit sector (i.e., firms and private interest groups) and the not-for-profit sector (i.e., non-governmental or civil society organizations) (Börzel and Risse 2005).
In many cases, enabling legislation can enhance the government’s efforts to share decision making in more cooperative modes of governance. Specifically, laws that foster private participation in infrastructure development – or enabling legislation for IPPPs – are critical to the success of IPPPs for several interrelated reasons (for a discussion, see Geddes and Warner 2005). First, such laws create an institutional framework that enhances perceptions about the rule of law, which is and critical to the success of complex inter-sectoral collaborations like IPPPs. Second, enabling legislation can help address important issues such as conflict resolution mechanisms, revenue sharing agreements, non-compete clauses, and expropriation protocols among many others. Third, the first and second functions of enabling legislation can help build trust among the different actors involved in an IPPP, which is important for generating the incentives and overcoming the barriers that are common to cross-boundary contracting. Finally, and perhaps most importantly, enabling legislation sends positive signals to national and international markets that can help attract private equity for infrastructure investments.

From the private sector’s perspective, it is risky to expend substantial time, money, and effort in developing infrastructure projects that may ultimately fail to receive authorization. Moreover, the large investment required is usually long lived, specific to that use, and irreversible. It is irrational to incur such investment unless returns are assured over its useful life, which depends heavily on the institutional environment. In addition to reducing the uncertainty of returns, PPP enabling legislation provides a framework for contracting, signals a general willingness to engage in PPPs, and more clearly defines the allocation of risk between the public-sector project sponsor and the private partner (Geddes and Wagner 2013: 31).
In short, Costa Rica is not immune from the need to have strong governance structures, and a robust institutional environment with enabling legislation to move infrastructure and transportation policies forward. Thus one strategy that could support effective implementation of transportation policy and PPPs is to reform the governance structure of MOPT and create enabling legislation that facilitates the use of IPPPs. To begin implementing this step, the government should collaborate with appropriate stakeholders and begin to conduct objective research on how to best reform the governance structure of MOPT and how to best create and develop IPPP enabling legislation. For example, a cross-sectoral, apolitical team of researchers could lead a detailed study over the course of several weeks or months that examined the current governance structures of MOPT and assessed what it would take (legally, politically, and financially) to restructure the organization and create a PPP Unit.

**STRATEGY 2: BUILD TRUST AMONG THE STAKEHOLDERS**

Another theme repeatedly articulated in the score sheets and the interviews with participants and nonparticipants was the need to build trust among the stakeholders and with the public. All of Latin America seems to be immersed in a trust crisis, with citizens becoming less trusting of their neighbors, community organizations, democratic institutions, political parties, and even the private sector (Latinobarometro 2015). However, in Costa Rica, the lack of trust has profound consequences for IPPPs. Indeed, the importance of trust in IPPPs cannot be underestimated. Given the duration of these contracts, which could be as long as ninety years, building trust among the key actors in an IPP is crucial (Van Slyke 2016). However, building trust is a challenge and takes a long time, but destroying trust is fast and easy (Van Slyke 2016).
Many interviewees noted that trust among the different actors, and particularly between the government, the business sector, and civil society, has been eroding for years (Artavia 2017a; Brenes 2016a; Guevara 2016; Loria Salazar 2017a). As Dr. Roberto Artavia (2017b) astutely remarked, “Trust is a scarce asset in this [IPPP] policy field these days. Building trust among the participants and decision makers is essential and this can take a lot of time that the country does not have. And more importantly, when trust among actors is robust, the transaction costs are lower for everyone.” He continued by explaining that in a small country like Costa Rica, the actors are strongly intertwined by their social dynamics. The private sector, civil society and the government all send actors to the IPPP stage, and each one of them brings different attributes, power dynamics, and resources. The relationships among them have two elements. One element is “transactional” and concerns “the exchanges of assets, goods and services, information, know-how, capital, technology and more.” The other element is “relational” and defined by “the type of interaction between the members of society” (Artavia 2017b).

These two “elements” as Dr. Artavia called them, are also identified in the research. Specifically, scholars and practitioners assert that several challenges must be addressed to build trust among actors involved in IPPPs, including institutional challenges (or “transactional elements”) such as the reduction of information asymmetries and the enhancement of transparency and accountability, and public relations challenges (or “relational elements”) such as the education of the public and the use of meaningful public participation (Boyer, Van Slyke, and Rogers 2015; Boyer and Van Slyke 2018; Geddes and Wagner 2013; Loria 2017; Van Slyke 2016; Villalobos 2017). These elements were also discussed and specified in one way or another by many of the subjects in this study as the foundations for building trust. Thus, unlike the first strategy, where more research is needed to determine the best models for the reform of the
MOPT and the design of IPPP enabling legislation, the participants had concrete ideas about how to build trust, which are backed up by research. These ideas shape the second strategy that can be used to support effective implementation of transportation policy and IPPPs in Costa Rica: Build trust among the stakeholders by improving the capacity and human capital of MOPT and by using public participation.

The first element of this strategy involves improving the capacity and human capital of MOPT. As suggested above, the institutional or transactional elements of trust are critical to the success of IPPPs. As David Van Slyke noted in a 2016 panel on the future of IPPPs, “if there are not strong ties of trust, it’s very difficult to have an efficient IPPP.” IPPPs are long-term relationships, and when designing the extremely complex contracts that guide those relationships, it is very important to evaluate the potential risks. One of those risks is that government actors are seen as obstacles, that they are perceived as untrustworthy because they lack accountability, expertise, and/or capacity.

This seems to be the case with the MOPT. Almost all of the interviewees, both participants and non-participants, as well as many of the participants on their Q study sort sheets, asserted that trust in the MOPT was abysmal. For example, one person said, as a government institution, the MOPT has “the lowest credibility and people think more than twice if they are actually going to deliver in their promises” (Guevara 2017). As evidence of this claim about the lack of trust in MOPT, it is useful to note that the Ministry was the subject of a stand-up routine by Hernan Jimenez, the most well-known comedian and actor in the country: “The Public Relations and Communications Director of MOPT should be the highest paying job, because
trying to save face for CONAVI, it’s the equivalent of trying to save face for the Ku Klux Klan. That person is dedicating his work life to defend the impossible.”

Many of the participants and interviewees also noted that to address this issue and build trust, the MOPT (as well as other government Ministries) needs to improve its capacity and human capital (in addition to reforming its governance structure, as discussed in the first strategy). Congressman Solís (former Minister of Political Planning and Economy, founder of the Citizen Action Party, and one of the best technocrats in the country) had a lot to say about this issue. For example, in his Q study score sheet, he stated, “Costa Rica lacks the human capacity to understand the institutional networks and that affects the competitiveness of the stages of our infrastructure.” Since the Congressman was heavily loaded into Factor B (and partially loaded into Factor C), I conducted an interview with him a few weeks after the Q study at the Costa Rican Congress. According to him, “The problem is MOPT management, there is no planning, no mission, no strategic objectives and there are very bad technocrats who are there by tradition, who do not understand modern technologies, and the appointment of hierarchs who know nothing of management or efficiency. It is terrible because they manage huge budgets and the future of our infrastructure” (Solis 2016b). The Congressman continued by noting that human capital within the MOPT (and within all government Ministries more broadly) would be improved if the rules were changed so that people, and particularly executives and hierarchs, are hired based on merit and ability and that inefficient employees can be fired. Other participants pointed to additional human capital problems: many (if not most) public servants are not trained in public administration, do not have the time or salaries to learn English, and are underpaid in comparison to their peers in the private sector.

12 Hernan Jimenez, at a sold-out show at the Jazz Café, San José, Costa Rica: https://www.youtube.com/watch?v=GZbDTHdzaKw
For the participants, building the capacity and human capital of MOPT makes sense as this would help improve several aspects of IPPP efforts. For example, having public services or “technocrats” who better understand IPPPs would help improve relationships with both the private sector and the citizenry. One the one hand, the presence of “specialized public technocrats” would signal to the private sector that government employees are well trained and accountable. On the other, these technocrats would have the skills and knowledge needed to build stronger relationships with citizens (discussed below).

The government of Costa Rica recently has taken steps to begin improving its human capital, particularly in the fields of technology, policy, and PPPs, by working with several international and national academic institutions. For example, the government has memoranda of understanding (MOUs) with both the Institute for Public Affairs and Program in Infrastructure Policy at Cornell University,\textsuperscript{13} as well as with the Maxwell School of Citizenship and Public Affairs at Syracuse University.\textsuperscript{14} The focus of the MOUs with both universities is to train public sector leaders. Leveraging and expanding these initial agreements with international academic institutions will help to develop a new generation of public servants that have the same knowledge, skills, and abilities as their peers in the private sector. Such public servants will not only form the building blocks needed to create a special PPP unit within MOPT and develop the proper enabling legislation (as called for in the first strategy), but also will help to move Costa Rica forward on its national development agenda.

The second element of this strategy involves using public participation to improve trust. There is large scale public distrust of IPPPs in Costa Rica, evidenced by the riots that occurred

\textsuperscript{13} There is an agreement that is bringing Costa Rican grad students to Cornell and the scholarship program is funded by a PPP and prioritizing civil servants: \url{http://news.cornell.edu/stories/2015/06/agreement-bring-costa-rican-grad-students-cornell}

\textsuperscript{14} The agreement with the Maxwell School is to establish scholarly effort with local universities and train civil servants in the field of public management, IPPPs, and civic engagement.
around the San Ramón highway issue. Perhaps this should not be surprising given that the public is one of the greatest sources of opposition to IPPPs worldwide (Boyer and Van Slyke 2018).

The public is likely to be more critical of PPPs than they are of contracting or privatization. Citizens are typically comfortable with private contracts that are “simple,” or easy to specify and easy to observe and measure, such as those for landscape services or refuse collection. Citizen enthusiasm can wane when considering private roles in more complex services, such as the development and operation of physical infrastructure (highway systems, bridges, subways, light rail mass transit, etc.). Given the fact that any private sector role in government services can be complicated for the average person to understand (because of questions about cost, quality, accountability, and so on), there is good reason to expect that as products or services provided by a private partner become more complex, public support for the initiative will decrease (Boyer and Van Slyke 2018: 2).

Many academics and practitioners see the potential for public participation to improve trust (see generally Nabatchi and Leighton 2015; Nabatchi, Gastil, Leighton, and Weiksner 2012) and believe is best practice when it comes to IPPPs (e.g., Boyer and Van Slyke 2018; Geddes 2015). For example, in his talk before the Costa Rican National Congress, Professor David Van Slyke (2016) remarked that “Good models of IPPPs [have] great coordination and communication” which can help address “public resistance to the toll fees, the terms of the contract, requirements sometimes even the country of origin of the company. And if the private sector partners think that public involvement is expensive to before the contract, indeed, they are right. But it is more expensive not doing it in the long run.”
Although many recognize the potential of public participation to improve trust, it is not often used within the context of IPPPs, and when it is, it usually is initiated too late in the process, for example, when the private and public sector actors are ready to sign – or already have signed – the IPPP contract. However, when public participation is conducted after the award of the IPPP, which can be a “20, 30 or even a 90-year contractual marriage … it really doesn’t matter what does the public says, the basic trust elements for the relationship to be effective have been rooted already in mistrust, poor transparency, and lack of accountability” (Van Slyke 2016). The participants in this study are well aware of this issue. For example, on his Q study sort sheet Luis Guillermo Loria Salazar, Director from LANAMME infrastructure policy think tank from University of Costa Rica, wrote: “Without civic participation and evaluating the perception of the public at the very beginning of the project, we are going to keep having riots for the main IPPP. The problem is we don’t have the proper participation mechanisms, enabling legislations nor the institutional frameworks.” The comments of several interviewees echoed this statement (e.g., Guevara 2016; Solis 2016b; Villalobos 2017). For example, Congressman Solis said, “Citizen participation is important in projects’ pre-award selection. Citizen participation is good for assessing technical reports, but getting involved in the institutions, particularly with technocrats that do not understand the administrative benefits of it is very complicated.”

Fortunately, the research on public participation has come a long way, and there is now a considerable amount of information to help practitioners design, implement, and evaluate better participatory processes (see for example, Nabatchi 2012; Nabatchi and Leighninger 2015). As a first step in thinking through the use of participation for IPPPs, the government may wish to consider using a series of public deliberation sessions that engage citizens, policy makers,
business leaders, and other IPPP professionals and stakeholders in discussions about IPPPs and national development and competitiveness. Although willing and potentially interested in becoming engaged, citizens in Costa Rica lack understanding of IPPPs (Boyer and Van Slyke 2018). Therefore, surveys and focus groups are inappropriate methods of engagement, since they do not allow for the robust educational element that is needed for citizens to participate meaningfully in discussions about this complex issue. In contrast, deliberative participation that is informed by a variety of perspectives and interests, can increase citizens’ knowledge about IPPPs and the contracting process so they can reach theory own conclusions based on empirical evidence, contexts, and facts, and not just knee-jerk emotional reactions. However, to generate these positive outcomes, it will be necessary for the government to engage a non-partisan partner, for example an academic institution or a think tank, so that citizens believe the forum is objective and fair.

In sum, Costa Rica has a long way to go to overcome its trust deficits, which plague the government’s relationships with both the private sector and the citizenry. This is problematic, as trust is a major currency in IPPPs. Not all is lost, however, as the results from this study suggest two ways to help build trust among the stakeholders: (1) improve the capacity and human capital of MOPT and (2) use public participation early in the IPPP contracting process.

**STRATEGY 3: USE MODERN PUBLIC RELATIONS MODELS**

On Q study score sheets and in interviews with participants and non-participants, many people, from all sorts of specialties such as business, communications, marketing, economics, law, and engineering, asserted that the current internal and external public relations and communications strategies used by the MOPT are “mediocre at best” (Guevara 2016). While not
disputing this claim, the problem cannot be attributed entirely to the MOPT public relations team. Rather, the challenge starts from the lack of flexibility that MOPT has in terms of public communication tactics as stipulated by law. As Deputy Rafael Ortiz stated in the interview, Costa Rica has “a series of laws that do not allow change or any civic participation; if you want civic participation that is not only sharing information with the public, we need to change the law.”

Following that interview, I reviewed the National Concessions Law in detail and found several problems. First, the law is archaic, and does not cater to twenty-first century democratic practices. Second, the law inhibits citizen participation in the pre-award processes of an IPPP. In part, this is because the law does not stipulate particular procedures in the phases of IPPP contracts, and because there are no public relationships campaigns or research strategies to evaluate citizen inputs. Third, the law only requires communication campaign that is based on one of the most ineffective models of public relations theory – the press agent – which is a one-way form of communication that relies on the use of persuasion to shape the thoughts and opinions of key audiences and which does not require accuracy, audience feedback, or audience analysis research.

Given the law, it is not surprising that: “The average citizen doesn’t understand the differences between an IPPP, privatization, or contracting, and that is why the oppose them” (Chacón 2016). It is this context that gives rise to the third strategy that can be used to support effective implementation of transportation policy and IPPPs in Costa Rica: *Use modern, more advanced public relations strategies centered on the two-way symmetrical model of communication at the very beginning of the IPPP process.*
There is a robust body of literature on public relations (PR) and diplomacy theory that specific four models of communication: the press agent/publicity model, the public information model the two-way asymmetrical model, and the two-way symmetrical model (e.g., Grunig 1976). Both the press agency and the public information models use one-way communication, and require little to no formal research to guide communication tactics. Moreover, these one-way models are always asymmetric, since the sender is only preoccupied with the diffusion of the message without taking the receiver into account (Grunig 2001). In contrast, the two-way models both use two-way communication, also referred to as scientific persuasion, which relies on conducting formal research and incorporating audience feedback into communication tactics. In the asymmetrical two-way model, the PR practitioner may serve as an advocate or as a persuader, but in the two-way symmetrical model the PR practitioner should serve as a liaison between the organization and key publics (Grunig and Hunt 1984). In the symmetrical model, the goal is to ensure that communication tactics create informational value that benefits all involved parties, not just the parties in the message-sending organization. In general, PR theory suggests that as one moves from the press agent model to the two-way symmetrical model, the modes of communication and diplomacy become more sophisticated, which increases the likelihood of using successful tactics.

However, as noted above, the communications department at the MOPT, as stipulated by the National Concessions Law, has relied primarily on the press agent model. Unfortunately, this model is characterized by the use of persuasion, half-truths, and manipulation to influence audiences to behave as the organization desires. It is therefore undemocratic, and has likely played a role in fostering the distrust seen around the country when it comes to IPPPs. Simply stated, the communication tactics used by MOPT violate best practices in both PR and in citizen
involvement. They do not maximize the administrative benefits, reduce hidden risks and information asymmetries, build trust, or legitimize the IPPP process. In fact, they do the opposite, creating the perfect storm for igniting citizen riots such as the one organized by Foro de Occidente over the San Ramón highway.

MOPT, and indeed the nation as a whole, would benefit from a shift to the two-way symmetrical model, which is the most ethical and most democratic model of the four (Grunig 1989: 29; see also Grunig 1976, 2001), defines symmetrical PR as “the use of bargaining, negotiating, and strategies of conflict resolution to bring about symbiotic changes in the ideas, attitudes, and behaviors of both the organization and its publics.” Thus, in symmetrical communication, each participant in the communication processes is evenly and equally capable of influencing the others, and the scientific methods of research that are inherent to the process are used to validate the different perceptions of the participants.

One easy message to transmit in such a communication model is evident in the consensus item (statement 15) from the Q study: transportation infrastructure projects improve the competitiveness and development of Costa Rica. This statement represents the low hanging fruit around which a PR campaign could be launched. Of course, beyond MOPT, such an effort should involve other government Ministries and entities, the business sector, chambers, civic organizations, other institutions, and above all the general public and representatives of organizations like Foro de Occidente. It is highly likely that such a campaign – if based on the two-way symmetrical model – could being to build some trust and help legitimize the process of IPPPs in the nation.

This strategy would not be expensive. The National Congress can host a study to launch the PR strategy (as they did for the Q study in this dissertation) and the stakeholders, experts, and
academic partnerships are already in place to assist. However, given the structure of the National Concessions Law, which articulates the phases of IPPPs and stipulates government actions within those steps, an executive decree from the new presidential administration might be needed. Although additional legal research should be done before any laws are changed, it is useful to note that the nation may need a law that reorders the phases of IPPP contracts and requires updated communication strategies. Moreover, the idea of changing this law could be tested in a public deliberation session, like those outlined in the second strategy.

Additional actions – particularly in regard to online communication – can be taken to operationalize this strategy. For example, MOPT can update its websites to make them simpler and more accessible and user-friendly. Moreover, MOPT can consider using online forums and e-regulation rooms to engage citizens in discussions and processes from the beginning. Such sites can help citizens learn about the contractual agreements, understand the financial models used to decide on pricing, monitor bidding processes and ensure accountability, and otherwise feel that their inputs are considered in a genuine and practical way. Many entities exist to assist the Costa Rican government with the development of such online forum and e-regulation rooms, including the Cornell University e-Rulemaking Initiative and the e-government branch of the United Nations Department of Public Administration. Finally, MOPT could consider employing a Chief Innovation Officer, a technocrat who is given a long-term tenure (to avoid changes due to the results of the elections) and promoted and evaluated based on metrics and results.

In sum, a change of direction in terms of PR and communication tactics that includes different voices from the very beginning of the IPPP process could be a first step in tackling the problems associated with IPPPs in Costa Rica. While more research and time is needed to formulate the PR and communication tactics, an overall strategy based on the two-way
symmetrical model could help educate the public, ease the hostile political environment, build trust among stakeholders and with the public, and generate support for IPPPs in the future. Moreover, the likelihood of success increases if this campaign is centered on the national development and competitiveness if the nation – the one area of true consensus.

CONCLUSION

One of the main takeaways of the Q study is that based on the perceptions of key decision makers in the field of transportation policy and IPPPs, there can be “strategies and ways to start building the proper coalitions, know there is understanding on the who, what, and why they oppose certain views or agree with some, and there is evidence on ways to start the conversation from the less contentious points to the most difficult components of an IPPP” (Solis 2016a). In this chapter, I proposed three avenues and strategies to help meet these goals and support effective implementation of transportation policy and PPPs.

Strategy 1 proposes reforming the MOPT governance structure and creating IPPP Enabling Legislation. An abundance of knowledge from research and practice suggests that appropriate governance structures and legal frameworks are critical for PPP success (e.g., Dannin 2011; Geddes 2015; Geddes and Wagner 2013. Strategy 2 proposes efforts to build trust among the stakeholders by improving the capacity and human capital of MOPT and by using public participation. Though it takes time and resources, trust is a major currency in complex contracting – without it, IPPPs are likely to fail (Boyer and Van Slyke 2018; Boyer, Van Slyke and Rogers 2015; Van Slyke 2016). Finally, strategy 3 proposes update MOPT’s communication efforts, and using modern, more advanced public relations strategies centered on the two-way symmetrical model of communication at the very beginning of the IPPP process. This approach
to communication is not only more democratic, but is based on the core tenant of creating informational value that benefits all parties informational value that benefits all involved parties.

There is little doubt that Costa Rica faces many challenges in terms of infrastructure and infrastructure public-private partnerships, yet the results of this study suggest there are avenues for moving forward. Although there are contentious issues, with stakeholders who have different views, there is also broad consensus that transportation policy and IPPPs should promote and enhance the national development and competitiveness of Costa Rica. All three strategies articulated here, not only reinforce one another, but also work toward this broader goal. Hopefully, the results of this dissertation will foster the good will – and the political will – to begin moving forward on this crucial aspect of national development and success.
Appendix 1
Invitation from the President of Congress Rafael Ortiz

Asamblea Legislativa de la República de Costa Rica
Presidencia

March 2, 2016
Pres.ROF.667-2016

Mr. Alvaro Salas
Doctoral Student - Maxwell School of Citizenship and Public Affairs
Syracuse University
Co-Founder Democracy Lab

Dear Mr. Salas:

After recent discussions with Dr. Roberto Artavia and yourself, I would like to formally invite you and your academic advisors, Dr. Van Slyke, Dr. Nabatchi, Dr. Kinsey and your former academic advisors Dr. Geddes and Professor Foote, to the Costa Rican National Assembly so you can moderate a round table discussion on infrastructure policies with specific focus on the role of public inputs in Public-Private Partnerships your research has included.

I plan to develop this round table with participants that would include the heads of each political caucus, industry leaders, area chambers of commerce and construction, and civil society representatives. With this array of individuals, each stakeholder group would be well represented and the stage will be set for a thorough and meaningful look into the country’s infrastructure policy development.

Based on my understanding of your research efforts and dissertation I believe this could be a meaningful opportunity both for you as a researcher to begin to refine your research questions, develop your methodology and address your primary data collection needs as well as act as an opportunity to bring expert insights into the discussion around the infrastructure needs of our country in case your advisors can attend the event.

Furthermore, the application of focus group studies and other research methodologies (e.g. Q-Methodology), would be valuable sub-components to this round table, enabling a greater understanding of existing sentiment towards infrastructure development policies as well as help to better understand the perceptions of the participants regarding policy changes and PPP processes in Costa Rica.

In order to move forward on this endeavor, the best dates are 19, 20, or 21 of April. I hope that this dates suits you to moderate this round table along with Dr. Roberto Artavia. Please coordinate with my staff.
I hope you and your advisors will accept this invitation, as I believe it would be to our mutual benefit. The infrastructural needs of this country are only too well recognized and to work with you and your esteemed professors would be a step in the right direction. Supporting the research needs for your potential dissertation only adds to the value of this round table discussion.

Sincerely,

[Signature]

Rafael Ortiz
President of the Costa Rican Congress

c: Dr. David Van Slyke
Associate Dean and Chair
Department of Public Administration and International Affairs

Dr. Tina Nabatchi
Associate Professor and Research Director Program for the Advancement of Research on Conflict

Dr. Rick Goddard
Associate Professor and Director of the Cornell Program in Infrastructure Policy
Department of Policy Analysis and Management
Cornell University

John Boote
Director of the Cornell Program in Infrastructure Policy

Dr. Dennis Kinsey
Director PhD Program in Public Diplomacy
Newhouse School
Syracuse University

Dr. Roberto Arriaga
Chair person Led University

Victor Umaña
Director of CLADS – INCAE
Appendix 2
Invitation from the President of the Costa Rican Congress to Participants

Presidencia de la Asamblea Legislativa
República de Costa Rica

INVITACIÓN A MESA REDONDA

“Perspectivas sobre el futuro de la infraestructura de transporte en Costa Rica”

La actividad tendrá lugar en el Salón de Ex presidentes de la Asamblea Legislativa durante el jueves 21 abril del año 2016.

Hora: 9:15 am. La actividad dará inicio de forma puntual, se les solicita a los invitados llegar a las 8:50 am para poder pasar los filtros de seguridad de la asamblea y obtener los materiales didácticos.

Organización del evento: Diputado Rafael Ortiz, Dr. Roberto Artavia y Alvaro Salas Castro (Candidato a Doctorado) Universidad de Syracuse y fundador del Democracy Lab, en colaboración con el laboratorio Lanamme de la Universidad de Costa Rica.

El problema: La infraestructura de transporte en Costa Rica está en crisis. Ha sido clasificada como una de las peores de América Latina por organismos internacionales. Esto no sólo afecta a la competitividad de Costa Rica en la economía mundial, sino también degrada la calidad de vida de los ciudadanos y su confianza en el gobierno. Los ciudadanos de Costa Rica están exigiendo una mejor infraestructura de transporte.

¿Cómo dar algunos pasos en dirección a buscar soluciones colaborativas?

Álvaro Salas Castro es el co-fundador del Democracy Lab (Laboratorio Democrático), candidato a Doctor en Políticas Públicas de la Escuela Maxwell de Ciudadanía y Asuntos Públicos de la Universidad de Syracuse, Nueva York. El señor Salas llevará a cabo la investigación en el campo de la política de infraestructura de transporte en Costa Rica en colaboración con expertos internacionales y nacionales de la Universidad de Cornell, la Universidad de Syracuse, el laboratorio de la Universidad de Costa Rica Lanamme e INCAE Business School.

El principal objetivo de esta actividad, es evaluar las perspectivas de líderes en diferentes sectores y representantes de grupos cívicos organizados, sobre el futuro de la infraestructura de transporte en Costa Rica, desde la óptica de algunos de los actores clave.

Metodología de la Investigación: En primer lugar, vamos a invitar a representantes de grupos cívicos, centros de pensamiento, cámaras, académicos y profesionales en el campo de la política de infraestructura de transporte en el sector público y privado para formar parte de una discusión con especialistas nacionales e internacionales moderada por Álvaro Salas Castro. En segundo lugar, todos los invitados participarán en dar sus opiniones y perspectivas mediante una metodología llamada Q-Metodología. Este proceso, permitirá evaluar percepciones y aptitudes de los diferentes sectores en la problemática de la infraestructura pública en Costa Rica, permitiendo analizar posteriormente los datos para buscar tendencias, afinidades y la implementación de potenciales estrategias colaborativas en el tema de infraestructura de transporte.
Panelistas:

Dr. Roberto Artavia (experto en competitividad, desarrollo sostenible y estrategia. Presidente del Consejo Directivo de INCAE Business School)

Dr. David Van Slyke (experto en contratación pública, implementación y diseño de políticas públicas en infraestructura. Autor de múltiples libros internacionales en contratación administrativa. Decano de la Escuela Maxwell de Asuntos Públicos y Ciudadanía de la Universidad de Syracuse, Nueva York)

Dra. Tina Nabatchi (experta en participación ciudadana, autora de múltiples libros en gobernanza colaborativa, resolución alterna de conflictos y administración pública. Directora de Investigación del Programa de Resolución Alterna de Conflictos y Gobernanza intersectorial de la Escuela Maxwell de Asuntos Públicos, y Ciudadanía de la Universidad de Syracuse Nueva York)

Ing. Luis Guilermo Loría (experto en construcción y análisis de infraestructura pública de transporte. Director del Laboratorio de Lanamme, Universidad de Costa Rica)

Diputado Rafael Ortiz (Presidente de la Asamblea Legislativa de la República de Costa Rica)

Moderador: Álvaro Salas Castro (co-fundador Democracy Lab entidad especializada en la investigación de políticas públicas)

Temas a discutir entre los panelistas y posteriormente con los invitados:

- El estado de la infraestructura pública en Costa Rica: retos, competitividad, productividad y desarrollo
- El rol de la investigación interdisciplinaria, creación de capacidades y transferencia de conocimiento técnico a diferentes sectores
- ¿Cómo resolver problemas en conjunto?
- Beneficios de la colaboración intersectorial, incentivos económicos y potenciales problemas ocultos por asimetrías de información
- Gobernanza colaborativa y el rol de la ciudadanía en las políticas públicas
- ¿Cómo involucrar a varios sectores?
- Presentación de casos de estudio en países en vías de desarrollo y desarrollados para efectos comparativos.

Para más información no dude en contactarse con Lilliana Alfaro e-mail: lalfaro@asambleago.
Appendix 3
Score Sheet for the Q Study: Which Statements Matter the Most?

Public Private Partnerships (PPPs) are increasingly common tools used by government to involve the business sector in the construction and delivery of public assets, such as highways, shipping ports, and airports. What are the most important things to consider when designing a PPP for a highway construction project?

Please rank the 32 statements from “Most Important” (4) to “Most Unimportant” (−4). Then record the corresponding statement number into the matrix below. Once you have completed the matrix, please answer the questions below. Thank you very much for your participation.

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Please circle the sector in which you predominantly work:

Government Sector  Business Sector  Academia  Non-Governmental or Non-Profit Sector  Media

Tell us a little about why you ranked the items a “4” so positively?

Tell us a little about why you ranked the items a “−4” so negatively?

If you are willing to do a 15-minute follow-up interview to help us better understand your choices, please provide your name and email address:

Name: ___________________________________

Email: ___________________________________
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VITA

Álvaro A. Salas-Castro is Ph.D. candidate studying public administration at the Maxwell School of Citizenship and Public Affairs, Syracuse University. A native of Costa Rica, he earned an MPA degree from Cornell University, as well as BA in foreign affairs, BA in law, and MBA in finance, economics and sustainable development from INCAE Business School.