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Research paper

Effects of the institutional environment on public-private partnership (P3) projects: Evidence from Canada

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ABSTRACT

The purpose of this paper is to understand the effects of the institutional environment on project outcomes in order to contribute to the accumulating accounting literature on P3s. Based on an empirical study of Alberta's institutional environment, using Edmonton's Anthony Henday Highway P3 projects, we analyze how the: a) political environment enables or disenables P3 outcomes; b) policy/business environment impacts project development and implementation; and c) organizational capacity affects P3 outcomes and vice versa.

Adopting a neo-institutionalism perspective and a case study approach, we investigate the effects of the institutional environment on P3 project outcomes. This research is based on 35 semi-structured interviews of public sector executive managers, political actors, senior industry executives, project consultants/advisors, labour union, media specialists, community advocates and public policy analysts in the P3 industry who participated in Alberta's P3 projects from 2004 to 2016.

We find that the institutional environment has significant influence on project performance, and program permanence/continuity. Our study suggests that P3 enabling environments present: 1) relevant P3 policy measures and committed political support by field actors; 2) a *path-dependent* response to project outcomes; and 3) institutional environment elements that are mutually re-enforcing with synergistic effects.

In effect, we document that a strong political leadership support for P3s, a favourable policy environment, and effective organizational capacity are pre-requisite factors for the successful implementation of P3s. Given the unsettled debate about various methodological approaches to value for money (VfM) determination for assessing P3s, we are unsure whether our findings are partly influenced by inconsistent accounting standards for P3s across jurisdictions.

Our study highlights critical P3 enabling attributes that would be beneficial to accounting researchers interested in institutional environment studies and co-operative arrangements, accountants, public sector policy managers, regulators, and private sector partners saddled with the task of developing and implementing P3 projects in various institutional and/or contextual settings.

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Table 1
Segments of the Anthony Henday Drive Projects.

Project name	Distance	Project start[a]	Delivery model	Contract term	Project value
	(km)				(Can $)
South West Anthony Henday Drive (SWAHD)	19	1999	Conventional	N/A	600M
South East Anthony Henday Drive (SEAHD)	11	2003	DBFM	30 years	493M
North West Anthony Henday Drive (NWAHD)	21	2007	DBFM	30 years	1.42B
North East Anthony Henday Drive (NEAHD)	27	2011	DBFM	30 years	1.81B
Total					4.3B

Source: Alberta Transportation Department (Ministry of Transportation).
DBFM: Design-Build-Finance-Maintain.
[a] RFP Date.

1. Introduction

Public private partnerships ("P3s") have become a widely used method for major infrastructure and service delivery worldwide (Siemiatycki, 2013, 2015; Boardman & Vining, 2010; Forrer, Kee, Newcomer, & Boyer, 2010; Loxley & Loxley, 2010; Hodge, Greve, & Boardman, 2010; Grimsey & Lewis, 2004). Several members of the Organization for Economic Co-operation and Development (OECD) and many developing countries have adopted P3s to deliver public services (Burger & Hawskeworth, 2011; Broadbent & Guthrie, 2008; Broadbent & Laughlin, 2005). In 2003, the Government of Alberta ("GoA") Canada, implemented a P3 policy, by collaborating with the private sector in the design, financing, operation and maintenance of critical infrastructure such as roads, schools, hospitals, water and waste management facilities.

Prior studies suggest that the success or failure of P3s is affected by a number of factors, including the institutional environment of a location (Jooste, Levitt, & Scott, 2011; Matos-Castano, Mahalingam, & Dewulf, 2014). Investigations into the institutional impacts on the implementation of P3 policies in different contexts have been sparse, especially, the role that the institutional and political contexts play in the process of implementing P3s (Delhi, Palukuri, & Mahalingam, 2010; Jooste et al., 2011; Mu, de Jong, & Heuvelhof, 2010). Jooste et al. (2011) emphasize the importance of an *enabling environment* for the successful deployment of P3s, and document that P3s are implemented differently in different regions, shaped by the institutional and political frameworks of the jurisdiction. Delhi et al. (2010) further present a framework on governance issues arising on projects including the influence of the institutional setting. They define an institutional environment as a context in which governments understand roles and responsibilities of P3s, leading parties to enter into sustainable P3 arrangements where institutional structures serve as a guide to achieving a coherent P3 policy, supportive risk sharing, transparency, sustainable development and a clear legal framework. Mu et al. (2010) argue that the occurrence of undesirable parties' performance is a sign of institutional deficiencies, capturing the need to improve the institutional setting where projects take place.

While only a few studies have analyzed the link between institutions and P3 projects, and the impact of the evolution of the institutional environment on P3 project outcomes (Aziz, 2007; Jooste et al., 2011; Petersen, 2011), there is no detailed study on the emergence and institutionalization of Alberta's P3 program, in spite of the uniqueness of the environment. Alberta has many P3 projects – completed and ongoing; it is the only Canadian province with a single party conservative government for 44 years (until 2015), thus providing a suitable political environment for assessing P3 outcomes; and it has no accounting standards for consistent accounting treatments for P3 projects (The Canadian Council for Public-Private Partnerships, 2008). Grimsey and Lewis (2002) explicate the importance of accounting for public private partnership and argue that neither the public sector nor private sector accounting standards are adequate for public private partnerships. They suggest that P3s require a new paradigm that "takes into account the complexity of the risk-sharing mechanisms and identifies clearly the rights and responsibilities of the various partners" (p.245). Our study contributes by providing evidence of the effects of institutional environment on P3s based on the Alberta P3 program – a previously undocumented institutional environment with approximately four decades of a stable conservative government (until 2015) and a developed market-based economy. Essentially, Alberta's P3 program appears to be forgotten, having attracted limited research interest since inception in 2004.

Our study is partly motivated by the 2010 report by the Conference Board of Canada (CBC, 2010), indicating that, "19 of the 55 s-wave P3 projects have reached substantial completion, and interim results suggests a strong performance" (p. 8). It further claims that most of the 19 projects were delivered either early or on schedule, and none of the 55 projects has exceeded its public sector budget as yet. Since 2013 another 50 has reached financial close (CBC, 2013). These studies financially supported by provincial governments – a P3 stakeholder, did not investigate the institutional context in P3 projects. Furthermore, we are motivated by the larger conversation as to why P3 projects are successful in some jurisdictions and not in others. By investigating the institutional environment that supports P3s in Alberta, our study contributes to the accounting literature on P3 and our findings would enable policy makers, including accountants and researchers to consider critical success factors and/or enablers of P3 implementation, especially regarding *ex ante* VfM claims.

We are also inspired by the sheer novelty of P3s in Alberta, and especially the scale of these contracts ($6.4B, see Table 2). We analyze how: a) the political environment enables or impairs P3 outcomes; b) the policy/business environment impacts project development and implementation; and c) the organizational capacity affects P3 outcomes and vice versa. Our

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findings suggest that P3 implementation is *context-specific* consistent with the position of Jooste et al. (2011). We argue that an enabling institutional environment could define project success, especially where political and policy legitimacy, organizational capacity, and partnership building are institutionalized or pre-existing. Conversely, institutional environment deficiencies could spell project failures, especially when political and policy legitimacy, organizational capacity, and partnership building are lacking.

We draw from the neo-institutionalism perspective and employ a longitudinal case study methodology to examine the interactions of the Alberta Institutional environment and project outcomes. We deploy in-depth, open-ended and semi-structured interviews to obtain primary data. According to Yin (2009), this methodology accomplishes two crucial tasks: 1) it follows a line of appreciative inquiry; 2) it asks actual questions in an unbiased way that serves the needs of the inquiry.

We find: a) strong political and leadership support for the emergence and sustenance of P3s in Alberta; b) Alberta presents a policy/business environment that enables P3s; c) a structured and effective organizational capacity to implement P3s anchored on a learning orientation. We present evidence that these components are mutually re-inforcing, creating synergies. Further, we find that the VfM amounts have been growing with each project. However, we do not know whether these amounts are driven by the different methodological perspectives resulting from inconsistent accounting standards for P3s across various jurisdictions.

The reminder of this study is organized as follows. Section 2 discusses the nature of P3s and the rationale for P3 implementation. Section 3 describes our theoretical framework including the institutional environment for project development. Section 4 outlines the methodology we adopted. Section 5 presents and discusses our findings. Section 6 concludes the study.

2. Nature of public private partnerships

Governments face investment and productivity challenges in the development and modernization of public infrastructure (Davies & Eustace, 2005). While P3s have been deployed in many jurisdictions, the benefits are often unclear (Spackman, 2002). In Canada, evidence of an ageing infrastructure is well documented. For instance, a 2004 study by TD Bank Economics Report, *Mind the Gap*, estimates that between C$50 and C$125 billion would be needed to fix Canada's 'infrastructure deficit'. A number of other studies have underscored the need for infrastructure investment. The McKinsey Global Institute (2013) estimated that Canada must invest 66 billion into maintaining and repairing urban roads and bridges between 2013 and 2023. Mirza (2007) suggests that transit system across Canada require C$4.2 billion annually for repair and replacement of existing assets, excluding meeting the needs of future demand. The Canadian Chamber of Commerce (2013) estimated that the breadth of investment needed to address Canada's infrastructure deficit could be as high as C$570 billion. Another study by the Canada West Foundation (2013) estimated the accumulated infrastructure debt at C$123 billion for existing Infrastructure, with an additional C$115 billion required for new infrastructure. Some of these reports identify strategies for bridging the infrastructure gap. Key among them being, according to the TD Bank Economics report, include: a) the federal government should grant lower levels of government an enhanced tax room to meet their growing infrastructure needs, b) governments adopt a "user pay" model to fund infrastructure assets; c) governments invite the private sector to become part of the infrastructure solution (via P3s). The report challenged the federal government to lead the charge in Canada's infrastructure renewal. Understanding the nature of P3s was underscored by Andon (2012) who detailed the various rationale offered by jurisdictions implementing P3s.

2.1. Rationale for P3s

While there is no universally accepted definition of P3s, this study adopts a widely cited definition from the Canadian Council on P3s (CCPPP).[1] Many jurisdictions advance various reasons for implementing P3s. For the most part, the main motivations for adopting P3s revolve around efficiency, value creation, budget constraints and risk management.

2.1.1. Efficiency

A major justification for P3s is that it is able to deliver 'increased efficiencies' over services provided by the public sector (Grimsey & Lewis, 2004; Vining, Boardman, & Poschmann, 2004; Vining & Boardman, 2008; Loxley & Loxley, 2010; Flinders, 2005). Some authors argue that this is partly due to the private sector's approach to and focus on maximizing profits and minimizing costs, due to the competitive spirit imposed on them by market forces (e.g. Loxley & Loxley, 2010). What is not generally established or accepted is how to objectively measure efficiencies delivered or to be delivered under P3. There are inconsistencies in methodology from one project to another and from one country to another. A general indicator of efficiency is the *value for money* measure (VfM) compared against a conventional project equivalent, called the public sector comparator (PSC).

In most jurisdictions, especially in the UK, it is mandatory for P3s to employ the PSC, which is an estimate of the cost profile under conventional procurement, to assess efficiency and therefore demonstrate VfM. There are suggestions that, this comparative measure of efficiency is prone to manipulation to skew decisions in favour of the P3 model (Hodge & Greve,

[1] CCPPP defines P3s as, "*a cooperative venture between the public and private sectors, built on the expertise of each partner that best meets clearly defined public needs through the appropriate allocation of resources, risks and rewards*" (CCPPP, 2012).

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2007; Heald, 2003). This calls into question the validity of this widely adopted measure as a reliable measure of efficiency and value for taxpayers. Watson (2003, p.4) defines the objective of the public private partnership as the importation of "private-sector discipline to the delivery of a government service or project". Overall, it is believed that P3s can increase the value for money spent for infrastructure services by providing more efficient, lower cost, and reliable services than the conventional model. Accountants have a role in the *ex ante* validation of the VfM components, the costs attached to them and verification of the net VfM calculation compared to the conventional model, including the net present value (NPV) of the associated cashflows. Furthermore, the verification of the costing of the PSC needs the technical expertise of accountants in setting up and validating the elements of the model.

2.1.2. Public sector budgets and deficit levels

Concern about growing debt levels and the risk posed to governments from unrestricted borrowing led many jurisdictions to impose limits on public borrowing. This is exemplified by the enactment of the public sector borrowing rate (PSBR) in the UK, and balanced budget legislations in several Canadian provinces. Therefore, the attraction of a P3 is that it remains a way to continue with infrastructure-related spending in the economy while keeping governments out of debt (Boardman & Vining, 2007). This rationale for P3 adoption has been challenged by various researchers and groups, especially labour organizations that, consider this an indirect borrowing and argue strongly that the market is not "deceived" when governments borrow under any guise and that the cost of borrowing directly by the government is still lower than the rates at which private corporations can do so either by themselves, or on behalf of governments (Loxley and Loxley, 2010; Boardman & Vining, 2007). Given the uneven cashflow pattern of P3s, accounting must assume a role in assessing the extent that governmental budgeted programs could become constrained by the projected payouts for P3 projects, both medium and long term, and thus provide valuable advice to stakeholders on the deployment of scare financial resources.

2.1.3. Risk Transfer

Risk transfer to the private partner is at the heart of project pricing under P3s, and ultimately the determination of VfM. Grimsey and Lewis (2000) suggest that given the complex nature of risk evaluation, a multi-dimensional approach is preferred. The conventional understanding is that risk must first be identified and assessed, and then optimally allocated to the party with the best financial, managerial and technical capacities to manage that risk (Grimsey & Lewis, 2004; Ward & Chapman, 1991; Edwards, 1995; Flanagan & Norman, 1993). A proper identification and classification of all risks starts the risk allocation process. Merna and Smith (1996), propose a classification of P3 project risks into two broad categories: global and elemental. Risk factors in the global group are generally those outside the control of the project participants, including political, legal, commercial, and environmental factors. The elemental group contains mostly the project-level risks such as construction, design, operation, finance, and revenue risks. P3 critics have long argued that expected risk allocation to the private sector never materialize as the public sector ultimately assumes all risks either directly (e.g., in the event of project failure) or indirectly through other means, e.g. provision of guarantees to the private partner (Loxley & Loxley, 2010; Boardman & Vining, 2007; Hodge & Greve, 2007; Heald, 2003). Again, accounting's role includes assessing and validating, both *ex ante* and *ex post* (via the audit process) the nature and extent of risk transfer and eventually the extent of project VfM. This includes identifying, quantifying and assessing how and when it is most efficient to transfer risk at the least cost. Since these items are discussed at the contract stage, accountants need to be part of the contract negotiation process to play a meaningful part in this assessment.

There is also the "supposed" added benefit of transferring risk to the private partner. All these have made P3s very attractive to governments around the world, but highly controversial at the same time. In the end, what is important is that a realistic and credible rationale be established to guide P3 implementation. The absence of a clear rationale could mean lack of focus and possible project failure. A properly articulated rationale will serve as an organizing framework for P3 success. Regardless of the methodical nature of risk transfer, it does not always ensure project success as the evidence from UK's large information technology projects indicates (Edwards & Shaoul, 2002). And there are still doubts about the ability of the public sector to identify and transfer risk, thereby limiting the derivable VfM (English & Guthrie, 2003).

2.1.4. Performance

The performance record of P3s around the world is contested, and remains the subject of ongoing debate. This debate seems to run along the researcher and practitioner divide (Grimsey & Lewis, 2005). Whereas researchers are suggesting more policy reviews and more debate, and evidence-based research to prove superior performance, practitioners insist that we are now past that stage, arguing that researchers verify the solid evidence that P3s are delivering on their promises (Loxley & Loxley, 2010; Hodge & Greve, 2007; Kwak, Chik, & Ibbs, 2009).

An important question remains: what are P3s expected to deliver? Again, there is no consensus on what the deliverables are. Projects in the UK indicate an average of 17 percent cost savings based on an analysis of 29 business cases by Arthur Andersen and LSE Enterprise (2000); and a 10–20 percent figure based on seven cases from the National Audit Office (2000), and Shepherd (2000) suggests cost savings in the range of 10–30 percent. Typical cost savings arise from efficiencies created from *bundling* the project construction and maintenance. Further, efficiencies arise from *innovation* in the design and construction, as well as *economies of scale* attributable to procurement (Yescombe, 2007; Grimsey & Lewis, 2004). What is interesting is that these studies assume a "substantial risk transfer" to the private sector. Critics argue that these calculations are based on a generous assumption of risk transfer that never materialized (Loxley & Loxley, 2010). Further, Hodge and

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Greve (2007) describe the evidence from Australasia as "patchy". They cite several reports that suggest the practical difficulty in making estimates around 'VfM, case-mix funding model, and ineligibility of additional top-up funding'. The Canadian performance record is rather limited at the moment. The Conference Board of Canada report (CBC, 2010), indicates that, "19 of the 55 s-wave P3 projects have reached substantial completion, and interim results suggests a strong performance" (p. 8). It claims that most of the 19 projects were delivered either early or on schedule, and none of the 55 projects have exceeded its public sector budget as yet.

What has been largely missing from this debate is the absence of a consideration of the institutional context in P3 project performance. Essentially, only few studies to date consider the impact of the institutional environment on the performance of P3 projects (Jooste et al., 2011; Matos-Castano, Dewulf, & Mahalingam, 2012; Matos-Castano et al., 2014; Scott, Levitt, & Orr, 2011). To advance the study of the institutional environment (specific context), neo-institutionalism lens, focusing on Canada, is considered appropriate.

3. The neo-institutionalism perspective

Early contributions to institutional theory suggest that the organizational field and the templates of organizing are infused with a taken-for-granted quality, in which actors unwittingly accept the prevailing template as appropriate, right, and the proper way of doing things (Greenwood & Hinings, 1996). Thus, the conventional delivery model has for long been accepted or taken-for-granted as the way of delivering infrastructure. Institutional theorists stress the stability of organizational arrangements and the characteristic of *inertia* rather than change (Tolbert 1985; Tolbert & Zucker 1983). We argue that stressing inertia may be inappropriate as organizations constantly experience change. In other words, institutions and organizations are not static entities; rather they evolve over time and the evolution shapes organizational action consistently. Therefore, the emergence of the P3 model could be interpreted as a form of organizational change that has become externalized.

The institutional and political conditions upon which a project is implemented have considerable influence on public and private decision-makers to invest in the projects through such innovative approaches. The institution refers to the presence of a legal framework for such undertakings as well as how favourable or limiting specific provisions of the legislation are to certain arrangements. Political factors have also been found to considerably influence whether P3s are successfully implemented. Government actors and entities operate in an institutional environment which influences their actions. It is within this institutional environment that P3 programs are conceived and implemented. In this environment, the central goal of an organization is not only economic survival, but also the establishment of acceptability (legitimacy) within its operational environment and boundaries. This is the central tenet of the sociological neo-institutionalism perspective. Neo-Institutionalism documents the pathways through which invisible social structures such as procedures, rules, schemas, and routines, take root as guides for social behaviour (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Scott, 2008). We align with Scott's (2008) view of institutions as the symbolic structures that enable shared meanings thus providing order to social action. Further, institutions determine how these different elements are developed, diffused, adopted, and adapted over space and time.

Scott (1987b) suggests that institutional environment elements are created by agents like national or state governments that are sufficiently powerful to impose structural practices such as regulations or formal procedures. These elements are the result of three types of institutional systems: regulative, normative and cultural-cognitive (Scott, 2008; Henisz, Levitt, & Scott, 2012). Therefore, neo-institutionalism embraces both the formal and informal elements prevalent at a given environment. While formal institutions are formal structural principles (as guides) which enable or prohibit social behaviour (Eggertsson, 1996), informal rules or trust patterns are also part of the institutional framework since behavioural patterns become institutionalized and the informal rules become seen as given (Winch, 2010). According to Ring and Van de Ven (1994), informal commitments become institutionalized over long periods of time due to repetitive implementation by social actors. Spiller et al. (2003) suggest that the institutional environment shapes political actions and the rules of the political game and vice versa. This implies some link between how political institutions shape political incentives, and how these incentives influence policy making processes and their effects on organizational capabilities. We opine that in regards to P3s, governments, as political actors, are responsible for the establishment of relevant programs and developing the appropriate capacity to ensure project success. Jooste et al. (2011) suggest that the way a government shapes the environment for P3 development depends on the nature of the overall institutional environment. This is consistent with the view by Broadbent and Laughlin (2003, pg. 339) that, "the accounting, auditing and accountability systems are context-dependent and context-defined." This leads us to conclude that the institutional environment exerts significant influences on project outcomes

3.1. Institutional environment for project development

Institutions are the humanly devised enablers and constraints, or set of relational contracts that guide actions and behaviour (Scott, 2008). They are made up of formal constraints (e.g. rules, laws, constitutions), informal constraints (e.g., norms of behaviour, conventions, codes of conduct), and their enforcement attributes. For instance, for public officials, formal rules are laid down in their code of conduct and operation manuals, budget documents, and many regulations, directives and instructions through which policy is conveyed. The informal rules are what the officials collectively understand as appropriate behaviour, 'how we do things'.

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Rules and regulations, formal and informal, together define the incentive structure of actions or behaviour within an organization, or across the public sector as a whole. Therefore, this institutional environment shapes the expectations of public officials and all actors involved in public infrastructure delivery.

Several studies have identified critical success factors that support the emergence and sustenance of P3s (Grimsey & Lewis, 2004; Zhang, 2005; Koppenjan, 2005; Kwak et al., 2009; Jooste et al., 2011; Matos-Castano et al., 2012, 2014; Chou & Pramudawardhani, 2015). For instance, based on what the author described as win–win principle, Zhang (2005) identified the following five critical success factors: 1) favourable investment environment, 2) economic viability, 3) technically strong and reliable concessionaire consortium, 4) sound financial package, and 5) appropriate risk allocation. Kwak et al. (2009) reviewed P3 related literature over a 20-year period and identified government competence, selection of appropriate partner; allocation of risk between the public and private sectors, and appropriate financial package as important factors that lead to the success or failure of P3 projects. Chou and Pramudawardhani (2015) have further identified stable macroeconomic environment, shared responsibility between public and private sectors, transparent and efficient procurement process, stable political and social environment, and judicious government control as critical success factors that shape P3 projects. Specifically, Matos-Castano et al. (2014) in a study of the P3 institutional environment in the Netherlands and India, based on the neo-institutional environment theory, identified political legitimacy, organizational capacity and trust as critical institutional environment capabilities that enable P3 environments to emerge and stabilize towards maturity. Building on the cross-country findings and representations of the institutional environment from these and other extant studies, we approached the Alberta institutional environment study. We posit that political willingness, enabling (business) policy stance, and public sector organizational capacity are dominant themes or critical success factors for evaluating the effects of institutional environment on P3s in the unique Alberta environment.

Further, we define the institutional environment as the mix of formal and informal rules and regulations that enable or constrain the behaviour of actors within the Alberta infrastructure delivery environment. The three dimensions of the Alberta P3 institutional environment are political environment; rule or policy environment (business/project); and organizational environment. Collectively these three dimensions make up the overall institutional environment. The Alberta institutional environment include the mix of formal rules guiding the adoption and implementation of P3 as a policy for infrastructure delivery/capital asset financing, the regulations for project identification, the appraisal and contract awards, and the informal ways contractors and ministry officials engage each other and communicate around project execution.

Alberta is unique because it had a single party conservative government for more than 44 years (until 2015). The Conservatives were first elected in 1971. Alberta is unique in a number of ways, 1) with a strongly conservative orientation and a business-friendly environment, Alberta was an early entrant into the P3 model, 2) with an ineffective and prostrate opposition, Alberta was a strong advocate in the advancement of the P3 model well before liberal-leaning provinces, such as British Columbia and Ontario; and 3) the nature of Alberta's economy especially its ties to the global energy market, makes it prone to substantial volatility. This compels Alberta governments to frequently design and amend fiscal rules. Kneebone (2006) argues that the institutional design of Alberta's fiscal rules is part of a governing arrangement. He notes that, the "evolution of its fiscal rules has been guided by a single conservative government" and "the evolutionary process of the fiscal rules has not been affected by changes in the governing political party or changes in political or economic ideology" (p. 659).

The Alberta P3 institutional environment provides insights into the current debate on the impacts of the institutional environment on P3 project outcomes (Jooste et al., 2011). Our findings will help accountants and researchers to know how institutional factors affect P3 project outcomes and determine the model with the optimal VfM. The findings will also be valuable to policy makers to more efficiently plan and implement future P3 projects. Insights into the Alberta's institutional environment add to the understanding of how *localized* behaviour affects P3 outcomes from a neo-institutionalism perspective.

4. Methodology

The central goal of this study is to analyze the impact of the institutional environment on project outcomes using the Anthony Henday highway in Edmonton, Alberta, Canada. Therefore, this study analyzes the evolution of the institutional environment in Alberta using the various segments of the highway project. The Anthony Henday Drive (AHD) consists of four different projects governed by four separate contracts, involving different private sector entities. The 80-kilometer highway development has spanned 13 years. Consistent with neo-institutionalism, and an interpretivist approach, the retrospective longitudinal method enabled a study of the complex interplay between institutional environment structures, actors and actions in the several segments of the project over this period.

The study was undertaken in four stages. First, we gathered data about policy interventions in the road sector in Alberta. At this stage, publicly available data and reports, journal articles, media reports, and policy documents authored by government agencies, not-for-profit organizations and researchers – e.g., Canada West Foundation, Parkland Institute and the Center for Public Economics at the University of Alberta, were collected and reviewed. This review enabled a reconstruction of the historical emergence of P3 policy in Alberta. *Second*, we analyzed the influence of these policy interventions on the institutional environment. *Third*, we analyzed the four cases that make up the Anthony Henday highway to evaluate the project outcomes. This highway was selected because of its strategic significance in advancing the Alberta Transport Utility Corridor and especially the substantial financial commitment ($4.3b in capital cost, interest and maintenance payments over 30 years) by the province of Alberta. Table 1 summarizes the key segments of the Anthony Henday projects.

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Table 2
VFM Profile of Alberta P3 Projects.

	Cost			Completion		
Project Name	Budgeted	Actual	PSC	Planned	Actual	VfM
Anthony Henday Drive – Southeast	493m	493m	497	Fall 2007	Fall 2007	4
Anthony Henday Drive – Northeast	1.8b	1.8b	2.17	Fall 2016	Fall 2016	370
Anthony Henday Drive – Northwest	1.4b	1.4b	1.64	Fall 2011	Fall 2011	240
Northeast Stoney Trail Ring Road	650m	650m	1050	Fall 2009	Fall 2009	400
Southeast Stoney Trail Ring Road	770m	770m	1870	Fall 2013	Fall 2013	1.1b
Alberta Schools Alternative Procurement, Phase 1 (ASAP 1)	634m	634m	752	Summer 2010	Summer 2010	118
Alberta Schools Alternative Procurement, Phase 2 (ASAP 2)	253m	253m	358	Summer 2012	Summer 2012	105
Alberta Schools Alternative Procurement, Phase 3 (ASAP 3)	289m	289m	332	Summer 2014	Summer 2014	43
Evans-Thomas Water and Wastewater Treatment Facility	60m	60m	62	Summer 2014	Summer 2014	2
		6.4B				

Source: Authors' compilation, 2015

Interviews were the main source of data for this project. Yin (2009) indicates two important tasks that an interview must accomplish. One, it must follow a line of inquiry (appreciative inquiry), and two, it must ask the actual questions in a way that is unbiased and serves the needs of the chosen line of inquiry. A mix of open-ended and semi-structured interview questions adopted allowed the conversation to evolve in some cases. Personal one-on-one in-depth interviews were the most important and valuable source of data for this study. To evaluate the Anthony Henday ring road, interviews of major stakeholders were undertaken. We conducted in-depth, semi-structured interviews with a question approach that was both exploratory and descriptive in nature. Data gathered from interviewees included their understanding of how P3s emerged in Alberta, the nature of the institutional situation during their involvement in P3 development, the description and structure of the projects they participated in, and the influence of the institutional environment on project-related issues including how these issues were handled. The interviewees were chosen for their direct participation and involvement with the P3 policy development and project implementation rather than their representativeness. Initial participants were asked to suggest names (snowballing technique) of other key players involved with the P3 policy in Alberta. This helped to focus on key participants and advance data collection.

Overall, 35 key project participants were interviewed – ranging from government officials, private sector contractors (main and sub-contractors), consultants to both the private and public sectors, labour groups, journalists, public policy experts, the Alberta-based taxpayers federation and a former Alberta premier. *Finally*, data triangulation was done by corroborating primary data with secondary data sources, using materials located in professional journals, government reports, industry reports and articles in the Canadian media. Interviews were recorded, transcribed, and then coded in a systematic iterative manner with the use of excel software. The interview data was supplemented with other data sources, including documents and secondary data that were either publicly available or provided by our interviewees, to increase the validity of the findings (Eisenhardt, 1989). Alberta Auditor General's reports were used to further supplement and triangulate information gathered from other sources. Collectively, these sources helped us to trace the emergence of P3s in Alberta, assess institutional structures around P3s and non-P3s, and determine the role of key actors, benchmarked planned targets, achievements and shortfalls of the P3 policy.

5. Findings and discussion

5.1. Political environment

5.1.1. Political leadership

Political support for P3s was noted as strong in Alberta. Interviewees confirmed that this is one area they did not have to worry about and were very comfortable with. Political stability given more than 40 years of one-party government has established Alberta as a jurisdiction of political stability in its own way. As part of this study, it was noted that Alberta appears to be the only jurisdiction where a line minister responsible for Infrastructure and Transportation that initiated the first P3 road project went on to become the Premier, the highest political office in the province. Archival data suggests that the appointment of a rookie minister Ed Stelmach to head the Ministry of Transportation and Infrastructure was perceived as a fresh beginning to build confidence within the local construction industry and establish new and stronger relations with the wider stakeholders.

Based on interview responses, political leadership has not been lacking in Alberta's P3s.

I think it has to be long term given the life of P3s. Alberta has done that. Political commitment has been very good. Premiers Klein and Stelmach were strongly committed. I hope Redford is as committed as her predecessors on P3s. Prominent politicians e.g., Lyle Oberg etc. were very supportive and committed to P3s too – Senior construction industry executive.

Government is supportive of P3s in Alberta. There is no question about that. But we say its use must be selective and when appropriate – Director, Civil Society Organization based in Alberta.

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Definitely Alberta is pro-P3 for sure. The Alberta environment is very attractive to investment. The folks who get here from overseas are very happy with Alberta. The margins are very high and attractive – Construction industry manager.

By having the government show their commitment, it sends a message to the market. The last thing a business entity wants is to know that one of the risks they have to deal with is the government itself. So to that extent, we are very happy they are fully committed to P3s – Construction industry executive.

I would share the fact that they are happy with Alberta's process. Our process is fair, transparent and clear. And our partners have told us that. Our Premier is very supportive of P3s, while some of our opposition political leaders may not be so supportive. Stelmach was the minister for transportation and Infrastructure, and later went on to be Premier, that helped push P3s in Alberta. Stelmach had that vision that it will work. He pushed P3s to a successful end. We could not have done anything without it – Senior government executive.

5.1.2. Justification/rationale

The establishment of a clear rationale was articulated by cabinet, made public via media releases and orchestrated by a motivated political leadership determined to drive the process in Alberta. We find that there was clear, though changing, justification for P3s provided at the start of the SEAHD P3 project and subsequent P3s. This was an outcome of the unsuccessful Swan Hill partnership, an integrated waste management facility operated by Bovar Inc., between 1987 and 1996, where it was acknowledged that the government did not articulate a clear rationale going in. Interview data suggests that the government provided justification for the Anthony Henday Drive (AHD) P3s. As the quotes below show, the main rationales were to generate value for money (VfM), ensure time and cost certainty, and derive the benefits offered by a long warranty period. What is equally important is the recognition that P3s may not be appropriate for all projects, as these rationales, viewed as the organizing objectives, may not be realizable in every project.

The articulation of a rationale for P3s is evidenced by some of the comments captured in the research interviews:

Markets were hot when they started these P3s, Alberta was clear on certainty of delivery; high quality etc. They were very clear on their objectives – Senior construction industry executive.

We set out to achieve cost certainty. We set out to ensure high quality, but reasonable standards. We set out to ensure open, transparent and fair processes with our bids. And these we have achieved so far and industry confirms that to us each time – Senior government executive.

Justifications were advanced. The main one was to implement necessary infrastructure without incurring immediate capital cost. That is ok for me as an Albertan – Design consultant, SEAHD.

At the time, we under-estimated migration into Alberta. So, we needed infrastructure among other things. When we looked at the money available, there was little left for Infrastructure, as more money went to social spending. It was a question of how do we package this on-budget and on-time. By presenting it as a P3, we will not only have a consistent amount available yearly. So, in comparison to the Design-Build (DB), it was better to use P3s for all these. We had a very good team, which was crucial. The ADM [Assistant Deputy Minister] at the time assembled an excellent team to get this policy implemented. That was the start of all these. Frankly, we did the first component and later the second component. And because of the success of the road program, we went to school P3s – Retired Premier.

We conclude that there were indications of a strong motivation to adopt P3 in Alberta, and this motivation had a strong political undertone.

5.2. Common understanding of and commitment to P3s

5.2.1. Collective understanding

This study found that there was common understanding of P3s by both the public and private sectors. Importantly, the P3 partners were aware of the benefits and obstacles involved in P3s. Moreover, the government did not want a repeat of the Swan Hills experience. That common understanding was articulated by the interviewees: as awareness that P3s are risky by their nature, that P3s have both advantages and disadvantages, P3s are prone to uncertainties given the long duration of the projects (a typical P3 could last for about 30 years), P3s are controversial, and could be targeted by both labour and opposition political parties, face potential rejection by taxpayers, with their unpleasant political costs for government. Both parties also recognized that given the experiences of other jurisdictions, there was need to ensure that the government was committed to the program for the long haul.

5.2.2. Public sector commitment

A standard design-build-finance-maintain (DBFM) contract has a provision for dispute resolution mechanisms, and this tends to demonstrate the strength of public sector commitment to implement P3s transparently. This commitment translates into among others, a resolve by the parties to mutually resolve any issues that may arise during project execution. Importantly, built into this mechanism is the role of a fairness auditor and an arbitration process. Arbitration use has been minimal in Alberta due to the good relationships and mutual understanding that seems to exist between the parties. The court is the option of last resort when every available mechanism is exhausted. So far, no legal action or litigation involving the Alberta government and any P3 partners has been reported.

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5.2.3. Private sector commitment

A senior construction industry manager has this to say about the commitment from both parties: *"Both parties are very much committed to the advancement of P3s in Alberta. The records speak for themselves.* The government follows up with its project monitoring teams to certify performance and authorize periodic cash payments. *'The government makes sure that the private partners have their skin-in-the-game, by the use of availability fee payments. These payments tie periodic cash payments to project availability and performance. Due to this very strict availability requirement, there is strong oversight from other interested parties, e.g. banks and other loan providers/guarantors."*

5.3. Stakeholder engagement

Transportation infrastructure is complex by nature. Every project is visible to the public and thus there is always much at stake. Thus, the government tends to be proactive and typically takes a long view when it comes to road infrastructure. For instance, the acquisition of land required for the AHD was made over 30 years ago beginning in the early 1970s. Regardless, roads have local implications as most people tend to not want them close to their property, the "not-in-my- backyard" mentality.

Issues about roads tend to involve private citizens and several levels of government such as obtaining permits and rights of way over several years and buying private land for the purpose of the AHD. Furthermore, the GoA needs permits and access from other levels of governments and private owners to relocate what is on the surface and beneath the surface to make way for road infrastructure. For instance, utility lines and pipelines transverse this province and properly relocating them to make way for highways has been a major undertaking. This required many years of careful consultations, advocacy and negotiations with all stakeholders in order to advance the highway construction. In a democratic setting, it is important to seek and obtain necessary permits to access private property or land. Since expropriation is never an option in Alberta, several open houses and public consultations took place to sensitize local communities about the highway project and get their views and support as part of the consultation process. While the GoA made some effort in engaging the communities near the P3 projects, it appears that these consultations were a mere formality as citizens' views were not made part of the input.

The AUPE (Alberta Union of Public Employees) expressed dissatisfaction with the government's consultation process:

This government has mastered the art of meaningless consultation. This was perfected during the Klein years and we have gone through the same motion, without any substance. There is no clear definition of choices outside the ones they bring to the table. The consultations are set up to get us to a predetermined conclusion. These are conclusions that have been reached by the government. Their engagement with stakeholders is simply to go through the motions – AUPE Senior Manager.

According to the public sector senior managers, "*there is still a public perception that we are not doing enough to tell the public about what we are doing and how we are doing it. Maybe we need to do more public enlightenment, maybe because they don't understand NPV*."

This is what a PriceWaterhouse consultant calls the education effect. In his words, *"education is key to building long term support. Recognize that we are going into unknown territory given our provincial fiscal situation."*

Another noted aspect of the environment was an abundance of disengaged citizens, absence of a viable opposition and a critical media which together created a quiet work space for the government to undertake the pilot and eventually roll out P3s across other sectors, such as education and water and waste water management. *"Alberta government has been very supportive, because not much is known about P3s by the citizens"*– Edmonton-based journalist.

A combination of these aspects of the political environment appears to have positively set the tone for a favourable outcome in Alberta's P3s as it helped to attract global bidders to Alberta, conscious that the P3 program will not be easily derailed.

5.4. Policy environment (Business/Project environment)

5.4.1. Policy shift

The first formal and coordinated P3 policy intervention was via the Cabinet acceptance and approval of the recommendations of the Financial Management Commission (FMC) on September 26, 2002. The FMC recommended that the Government of Alberta and Supported Infrastructure Organizations (SIOs) be allowed to enter into alternative funding arrangements for capital projects, under specific conditions and with appropriate guidelines in place. This new policy position marked the official beginning of P3s in Alberta. With the acceptance and announcement of this policy shift, the next policy measure was the amendment of the *Fiscal Responsibility Act* to allow alternative financing for government-owned capital projects. Previously, all capital spending was funded on a *pay-as-you-go* basis. Amending the *Fiscal Responsibility Act* was the second major policy intervention in creating the enabling environment for P3s in Alberta. This was significant because it provided the legal basis for the government to enter into contracts with the private sector and implement the new policy with the full confidence of stakeholders. It allowed the private sector to mobilize their resources, assured that the GoA was now committed and serious about doing P3s, now that all legal and policy obstacles had been cleared.

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5.4.2. Structure of alberta's P3s

The type of contracts found in Alberta's P3 road projects is the DBFM model, which lies in the middle of the P3 continuum. This type of P3 arrangement suggests a balance between the partners in the sharing of risks and benefits arising from the partnership structure. This also suggests that there is a clear demarcation of the roles and responsibilities of each partner. For instance, the Alberta P3 contract makes it clear that the projects belong to the GoA. This is important because in some P3s, it is understood or implied that the contractor owns the project. Part of this structuring of roles and responsibilities include an understanding of the nature and bearer of each type of risk associated with the projects.

5.4.3. Risk management

In Alberta's P3s, project risk is structured so that the government bears those risks classified as environmental and archeological in nature, while the contractor bears risks that are associated with construction, weather, defects and warranty. The GoA developed and implemented standardized contract templates. Costs remain a central plank for optimal risk allocation, in that the party that is in the best position bears certain risks and this ensures that such risks are borne in the most cost efficient manner.

Under the DBFM, private finance is required. But Alberta makes a contribution to the capital financing needed, thus limiting the amount of borrowing the private sector sources from the capital market. This has been a major advantage as the risk exposure for both parties is limited with the attendant project pricing advantage that accrues to Alberta.

An outcome of the P3 expansion in Alberta was a consideration of the potential risk of a sudden credit freeze on P3 projects. Public sector interviewees confirmed that an evaluation of financial viability of a potential proponent is now part of the pre-assessment criteria, and a shorter window is allowed for a successful bidder to sign the financial close document and lock in the financing arrangements. These steps, an outcome of the 2007–08 financial crisis, helped minimise the exposure and risk associated with P3 projects in Alberta.

Interviewee comments on risk allocation in Alberta's P3s suggest a fair and balanced approach that tends to enhance P3 project success. While some local industry partners prefer a protective clause for smaller contractors, other partners suggest that a protective clause may defeat the intended benefits that may accrue from P3s as a competitive arrangement. The government interviewees acknowledged the challenge and noted that they are working with local groups such as the Alberta Consulting Engineers and Architects, to link them with bigger P3 players, as a better way to preserve local jobs. They insist that writing a protective clause into the contract will limit Alberta's competitiveness given the global nature of the P3 market.

Interviewees had this to say about the current risk allocation in Alberta's P3 road projects:

> The risk profile that AT [Alberta Transportation] has is reasonable and fair. The DBFM agreement – on the construction side is a drop-down from the concessionaire. The risks are adequately distributed. In some ways, they are fair and in some ways they are punitive, especially in dealing with utility companies. The province has done a good job of helping out with utility costs (say a pipeline that is underground). For all third-party costs, the bidder has to carry a portion of it – Senior construction industry executive.
>
> Yes, it is fair. There is always a bit of tension about some of them. But overall, it has been a realistic risk allocation. They have a very reasonable expectation about risk and responsibilities. We don't have any real problems with the risk allocations among the parties – Senior construction industry executive.
>
> I agree with the fact that we are not in a position to fully and properly evaluate all the risks and assess the risks. And this is a major challenge for ordinary people to do. It is very difficult to assess if these projects are in the best interest of the public. It is certainly difficult for me – Journalist, Edmonton.
>
> Since the first P3 we have evolved. We've spent a lot of time on risks – measuring, ranking, allocating etc. Industry pushes back too. They want to be fair and willing to pay to pass that risk and they always tend to push back. And we say no – Senior government executive.
>
> Alberta transfers all the risks to the private industry, but provides a significant amount of data about what is out there. No one has run into a huge surprise as to what is out there. Generally, those risks have been transferred to parties who are in the best position to bear them and make decisions about them. The risk process has worked fairly well, yes there are environmental concerns, utility lines buried, but they have been properly distributed – Senior project design consultant, Stantec.

However, not everyone is satisfied with the risk sharing approach at AT:

> The government can do more in sharing risks. As contractors, we like fewer risks. But the process in AT is that during the bidding process, and at key milestones we are allowed to submit questions. These are related to some type of risks. They responded at certain time frames. Some they did not respond to. The risk team will then assume that there is a risk when we don't get a response – Local construction executive.

While there is consensus on the fairness of the risk allocation, not everyone agrees with the incentives and penalties scheme now in place. This respondent suggests that AT's penalties are severe. AT is of the view that this works to motivate some contractors, but it may have the opposite effect on others, as they (contractors) devise ways to avoid them.

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> We take full risks associated with maintenance of the road. They (AT) are able to mitigate their risks by passing it to the contractor. And the contractor takes steps to insure against their risks. This way the government's budget is preserved. For incentive/disincentive: The P3 contracts have adequate incentives/penalties that make us deliver higher quality roads. The penalties are severe. We do try to avoid them at all cost, by doing whatever it takes to avoid them – Construction industry manager.

Another respondent suggests that it is not just the incentive and penalty structure that works against local contractors, but the entire requirements to participate in P3s, and suggests a provision to take care of local contractors may be needed.

> To rise into the global market place, you need deep pockets. You need to be very knowledgeable in commercial terms. You need to be knowledgeable in finance issues, latent defects etc. From a securities point of view, you are asked for bonds, letters of credit, etc. From a contractor's point, we are on the hook for 14 yrs. Will it stop us from bidding, yes! The requirements are onerous for a local contractor. The security deposit locks up a lot of money during the construction period of the project. For global players like Flatiron etc., it wasn't a huge requirement to meet and stay in business. But for local contractors it is a huge amount of money. From a taxpayer/government perspective, that eliminates the risks and enables them manage the projects successfully – Local construction executive.

Continuing, in reference to another project they were part of, the local construction executive said: *"There are substantial penalties. There are some incentives as well. In the end, we signed the contract, because we were comfortable with the overall contract."*

5.4.4. Conflict management

Conflicts could derail a P3 program. Therefore, conflict prevention and resolution mechanisms must be made structural features of a P3 program. Alberta appears to have worked hard in this direction, given the Swan Hills experience where several disagreements were a feature of the partnership and no clear conflict prevention and management mechanism was in place to address the issues. The conflict prevention tools now in place include the Fairness Auditor, use of experts to determine whether bids are competitive, a formal arbitration process and the establishment of a clear set of criteria that determines a successful bidder, e.g. one of them is that the bidder must present the lowest net present value (NPV). That said, one of the strongest conflict management tools that was adopted was the "rapid fire" communication adopted by the Ministry and the bidders. Several meetings are held with the request for proposal (RFP) responders even before the real negotiations are done. These meetings work to iron out all the kinks around specifications, risk identification and allocation, project management and organization among others.

> The absence of litigation and limited use of the arbitration process so far is evidenced from the comments made by interviewees:
>
> That goes without saying. These are complex and sophisticated projects. We take the time and energy to work through it. Some of them take a lot of money to get these resolved. Conflicts or misunderstandings have been successfully resolved each time. The resolution process works well – Construction industry senior executive.
>
> I don't know there have been any major conflicts. AT has been emphatic about sticking with their plan and makes it clear that every party stays within that plan. This strategy removes most of the conflicts. The process is really good and works well. The downside is it limits innovation capacity – Senior project design consultant Stantec.
>
> One, industry pushes back on everything because they don't like to bear risks, and we give it back to them. Everything that is unclear is taken up before the contract is finalized: from girders to surface quality to environmental concerns and regulatory or municipal approvals. Everything is extensively discussed and resolved before a contract is signed – Senior government executive.
>
> We have not had any major conflicts. There is the occasional protest about a special item. The fairness auditor is always there to observe and keep everyone on the appropriate path. That ensures a level of fairness – Senior government executive.
>
> On conflict resolution process – We had some significant project related conflicts. The public does not know this. The girders were put and then went down. Someone damaged our girders. However, these issues were successfully resolved. For me, there has been a successful resolution of all conflict situations so far – Senior construction manager.

5.5. Organizational environment

An element of the overall institutional environment is the organizational structures to design, manage and implement P3 projects. Interviewees and secondary data suggest that the organizational environment was supportive of P3s given the current quality of the P3 managers in Alberta.

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5.5.1. Public sector capacity

Prior to and during the first P3 road project, (the SEAHD), public sector capacity was practically non-existent. During that phase, consultants were hired for most of the evaluation and assessment procedures required. This includes engineering, legal, and financial consultants. These consultants were part of a knowledge transfer arrangement that ultimately trained public sector staff. Currently, the Alternative Capital Financing Office (ACFO) is responsible for in-house training and knowledge retention for P3s within the GoA. According to Ministry officials, the GoA is committed to continuous knowledge acquisition by its staff, and the deepening of this knowledge. Furthermore, government has enhanced its capacity by publishing relevant guides detailing project initiation, assessment and approval steps, and a more comprehensive business case template. These guides and templates have evolved consistently with the evolution and learning from various projects in the province and beyond. For instance, these templates, manuals and guides detail how to use financial indicators to assess VfM, perform risk identification and allocation, undertake P3 procurements, and develop standard contract documents. It also details the various steps needed to obtain approval from the initiating ministry and the relevant cabinet committee (Treasury Board Committee).

However, capacity development is now constrained by the absence of a P3 project portfolio or pipeline. This was confirmed by some Ministry interviewees, who stated that capacity enhancement is now a challenge given that retaining experienced hands is a factor of getting them work to do. If there are no P3 projects going on, they will go to jurisdictions where there are P3 projects. This complicates future capacity, as there is no opportunity to groom and develop the P3 managers of tomorrow. Interview comments indicate both, progress and challenges.

> We are trying to create depth and breadth via ongoing P3 projects. The challenge in raising a new crop of skilled and experience public sector managers is the fact we have a limited pipeline at the moment – Senior government executive.
>
> AT and the folks over there have learned a lot over these many years and continue to learn and upgrade their processes and improve on their project delivery infrastructure overall – Construction industry manager
>
> Excellent transition plan has been in place and practised over the last couple of years. We had really good succession. On the technical side, we have had younger newer staff. We've excellent training and in-house arrangements to ensure knowledge internalization. Teams are formed for this purpose – Senior government executive.

Another public official was more detailed about the importance of P3 capacity:

> One, we need to do a good job of educating the whole team about the costs involved. We need to have more money for the P3 equivalent, honorarium, pursuit costs, financing costs etc. These costs don't occur in a Design Build (DB) model. The cost structure in a P3 and the DB are different and should become part of our culture. Two, deepen our capacity for cross-learning between DB and P3. Every project manager should be able to do both a P3 and a DB at the same time. Cross training and cross-learning needs to occur in our department. A project manager should be able to do both models. That will increase our capacity. At the moment, the hand-off worries me as we are still cross-learning – Senior government executive.

5.5.2. Private sector capacity

Limited private sector capacity existed at the initiation of P3s in 2002, given the scope of projects being planned. That said, it is interesting that the SEAHD as the pilot P3 project was built by a local construction firm, PCL. However, P3s with significant VfM savings are typically large scale projects running into hundreds of millions of dollars (See Table 2 for VfM values of the Alberta P3 program). Local industry capacity to undertake such projects did not exist in Alberta. It was no surprise that a foreign consortium won the $1.4B NEAHD. This led to the influx of foreign firms into Alberta to bid/compete for P3 projects. There was also some consolidation of local firms to create the scale required to bid for P3 projects in Alberta. For instance, one interviewee confirmed that Stantec and a number of local engineering and construction firms came together to form a consortium to bid in Alberta's P3 projects.

5.6. Alberta's P3 from a neo-institutionalism lens

Neo-institutionalism provides a frame to investigate the emergence and deployment of P3s in Alberta. And also, to articulate how elements of the institutional environment interact to influence one another and the overall institutional environment.

5.6.1. Legitimacy at work

Legitimacy is a central part of neo-institutionalism. Organizations seek legitimacy in order to survive, thrive and be seen or perceived to be successful in their environment. As observed in Alberta's P3 effort, the government set out to obtain legitimacy for a number of reasons. First, it wanted to attract reputable companies to Alberta, and thus, be able to deliver high quality infrastructure that will last about 30 years. Second, it wanted to be seen to be adopting legitimate means and processes in developing and deploying an alternative infrastructure model in Alberta and thus seek electoral mandate on the basis of these measures. Third, the search for legitimacy necessitated the formation of an independent panel (the FMC),

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formation of the ACFO, and the adoption of open, transparent and fair bidder selection processes and the articulation of a clear rationale while demonstrating VfM. These measures seem to have enhanced the legitimacy of Alberta's P3s among major stakeholders. It appears that legitimacy leads to a willingness (politically and organizationally) to undertake P3s while trust between partners enable transparent and competitive environment for P3s. Once these central attributes are in place, enhanced capacity building capability can result in the identification, structuring and governance of individual P3 projects. In conclusion, legitimating the change to another model of asset delivery was considered essential to its success or perception of success and ultimately its institutionalization as an accepted model of asset provision in Alberta.

5.6.2. P3 organizational field

Organizational field evolution and structuring is an emerging stream of P3 research. It adopts an organization field lens to gain insights into how Ps actors are organized to enable the success of P3 projects. Looked at from a formative angle, it is termed *P3-enabling field*. (Jooste et al., 2011). Institutionalization is said to occur at the organizational level when rules and routines become accepted as "taken-for-granted" and are no longer challenged by organizational actors (Scott, 2008). In some cases, they are disconnected from the initial purpose for which they were designed or introduced. In this situation, institutions assume the position advocated by Veblen, as settled habits of thought (Scott, 2008; citing Veblen, 1961); or as Burns and Scapens (2000) write, "a way of thought or action of some permanence."

Neo-institutionalism suggests that there are different levels of institutional influence on organizational behaviour. First, there are broad, society-wide institutions that could influence and constrain organizational and individual behaviour (DiMaggio & Powell, 1991). These are broad norms, habits and values that could be considered macro-institutions. There is an overarching way of life in Alberta that could be considered as the macro-institutions. These include: institutions for law-making, political institutions, democratic principles, respect for private property and the rule of law. Second, there is the institutional influence arising from the *organizational field* (Scott, 2008). The organizational field could also influence and constrain organizational behaviour. These include the practice of post project review by the auditor-general of Alberta, emergence of vocal stakeholder groups such as community associations, respected journalists, consultants, Taxpayers Federations, the community of policy analysts that have become more engaged in reviewing Alberta's P3s. Therefore, the norms, habits and values that dominate this territory are more specific and targeted than macro-institutions above. Third, at the *organizational level*, the norms, habits and values are even more targeted and specific. This is mainly the government departments and agencies currently involved with P3s. Specifically, these are the departments of Transportation, Infrastructure, and the Alternative Capital Financing Office. These collectively approximate what is called an *institutional influence* that is captured in the Burns and Scapens (2000) framework as the institutional realm. There is also the level of analysis that focuses on the influence of micro-institutions, the interests and individuals who use their authority and influence to make change happen at the local level.

Alberta's P3 emergence suggests what this study terms *co-evolution* of the organizational field. Recall that in 2002, there was no P3 project in Alberta. However, as policy intervention cleared the path for P3 emergence, a supporting range of organizational structures also emerged with it. Public sector interviewees confirmed that they placed reliance on external consultants in the SEAHD, but as projects were implemented, internal capacity slowly developed: staff was recruited and trained, applicable documentation was developed and standardized, and the development of the procurement process was streamlined. This public sector organizational capacity continued to evolve with the establishment of the ACFO in 2007. Another interviewee (a Principal) from the Auditor General's office disclosed that, "*as of 2002, we had no capacity to audit P3s, we did not know what they were, and we had to quickly acquire the skills and competencies to audit P3s."* One of the journalists interviewed had this to say, *"I was clearly against P3s, simply because I did not understand them. I considered they would damage the natural landscape of Edmonton. But after I was taken on a tour of the SEAHD while under construction, my views changed."* The AUPE interviewee confirmed that AUPE had an *"unpleasant experience with privatization in Alberta, and no knowledge of P3s at all."* They were thus, initially debating P3s from the perspective of previous privatizations in Alberta which were not favourable to the Unions. In the case of road P3s, now we know more, *"because I started researching what was going on across many jurisdictions. We have not been adversely impacted by it."* What this points to is a co-evolution of the institutional and organizational field elements that were previously non-existent in Alberta. Simply put, all the actors were *learning* and *acting* at the same time.

5.6.3. P3 logic – institutionalizing a new logic

Institutional logic is an aspect of neo-institutionalism that is relevant to the emergence of P3s in general, and Alberta especially. The idea that governments are responsible for the provision of infrastructure has been well documented and accepted in liberal democracies. But, the persistent time and cost overruns (Flyvbjerg, 2009) that characterize capital asset delivery have begun to shift the tide on the existing logic of infrastructure delivery solely by the public sector. Governments are starting to challenge that responsibility (Grimsey & Lewis, 2004). The trend where demands by citizens are ever increasing and tax revenue is not growing commensurably requires us to revisit the logic of full government responsibility for infrastructure provision. Governments in arguing for and implementing P3s are presenting the alternative logic of *shared responsibility* with the private sector. This is a competing logic that will continue to attract the attention of new institutionalists and policy experts. The Alberta government in providing a clear rationale for its P3, wanted to provide a competing logic as an organizing framework for P3 deployment. While this competing argument could be considered successful, it is not so clear if it will be in another jurisdiction with a different set of attributes or context (institutional environment).

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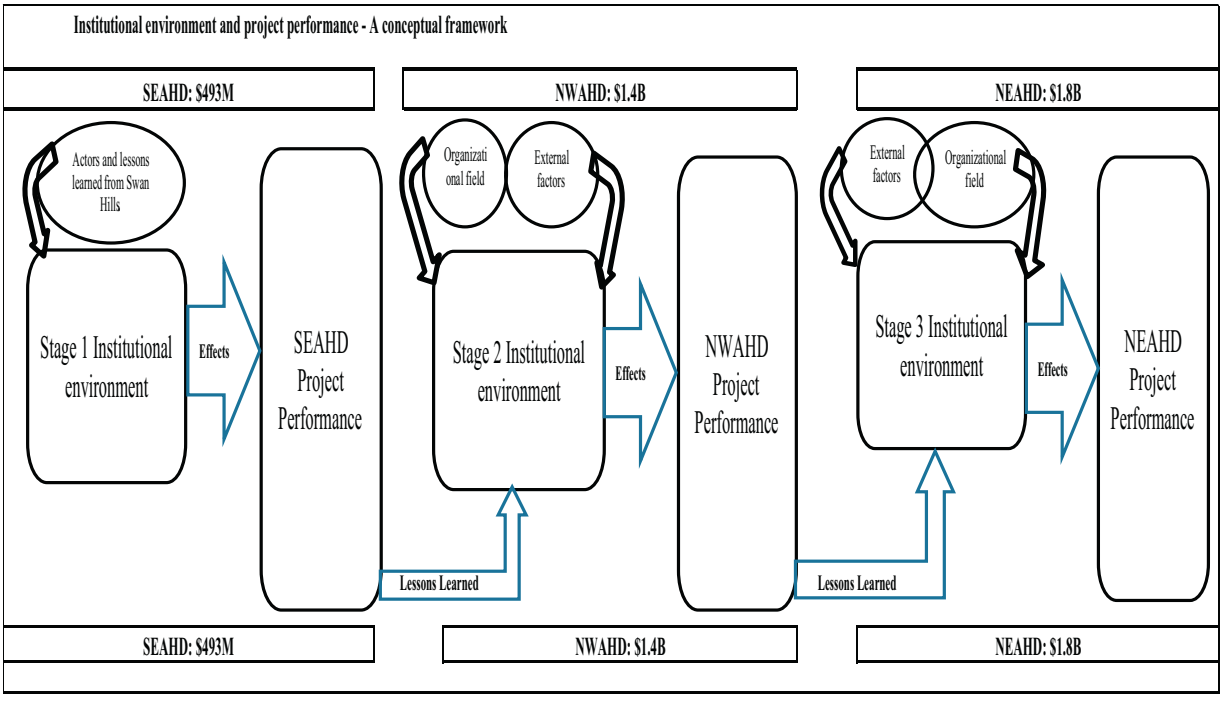

Fig. 1. Institutional environment and project performance – A conceptual framework.

The notion of 'exiting' government from business began with the election of Ralph Klein in 1993. With the province in a poor fiscal state with an accumulated debt of $23 billion (Government of Alberta, 2002), this was proposed as the beginning of a new logic in Alberta. It was framed as the policy of "get-out-of-the-way." This logic of not involving government in what could best be done by the private sector seems to have begun the shift toward privatization and engagement of third parties in services previously the exclusive domain of the public sector. In Alberta, under this new logic, the liquor stores were sold, SWAN Hills was restructured to substantially involve the private sector for efficiency reasons, operations of senior's homes were privatized, road maintenance was privatized, a Third-Way for private medical practice proposed among other reforms. With this new logic in place, it was fairly easy to anticipate the transition to an intensified engagement of the private sector in many other areas in Alberta. Thus, the fiscal storm of 2001–2002 was the tipping point that forced the province into a full P3 mode.

5.6.4. Institutional change

Closely related to institutional logic is the process of *deinstitutionalization* followed by *re-institutionalization*, a cycle that recent institutional studies have found attractive. Greenwood & Hinings (1993, 1996) find support for the *cycle* (Greenwood & Hinings, 1996; Greenwood et al., 2002; Scott, 2008; Tolbert & Zucker, 1996). There are similarities with the introduction of the P3 model within the Alberta public sector. The persistent cost overruns (Flyvbjerg, 2009) associated with conventional delivery suggests the potential for a gradual but, noticeable erosion or deinstitutionalization and de-legitimization of that model. The P3 model seems to represent a solution to the performance crisis of the conventional model, and as better aligned with the taxpayer position of *better infrastructure and service at a reasonable cost*. This efficiency logic is the foundation on which a new institutional story is being built to give P3s the cover of legitimacy and make the case for change. This suggests support for the "deinstitutionalization followed by institutionalization" cycle put forward by Greenwood and Hinings. The predisposing factors for erosion appear consistent with the factors proposed by Oliver (1991). Oliver suggests that political, social and economic factors predispose an established organizational practice to erode over time. In the Alberta situation, significant fiscal and economic events in 2001/02 converged and prepared the grounds for the erosion and a re-evaluation of the existing infrastructure delivery model, given its poor performance record. It was clear that significant investments did not result in significant infrastructure delivery. This was visible from the failed SWAN Hills project. Because of the project, there was dissatisfaction and a challenge to the status quo. With the loss of confidence in the conventional model, there was a gradual erosion of value in the previously taken-for-granted model.

In Fig. 1, we show how the lessons learned from each completed project affected the succeeding one. These were found to influence how the next project was planned and implemented by drawing on the knowledge gained from the previous one, including opportunities for improving the outcomes of the next. In Alberta, the institutional environment changed with each project as the institutional environment evolved from one project stage to another. Thus, there is a sequential transformation of the institutional environment from one project to the next. The utility of this framework is that it captures the institutional

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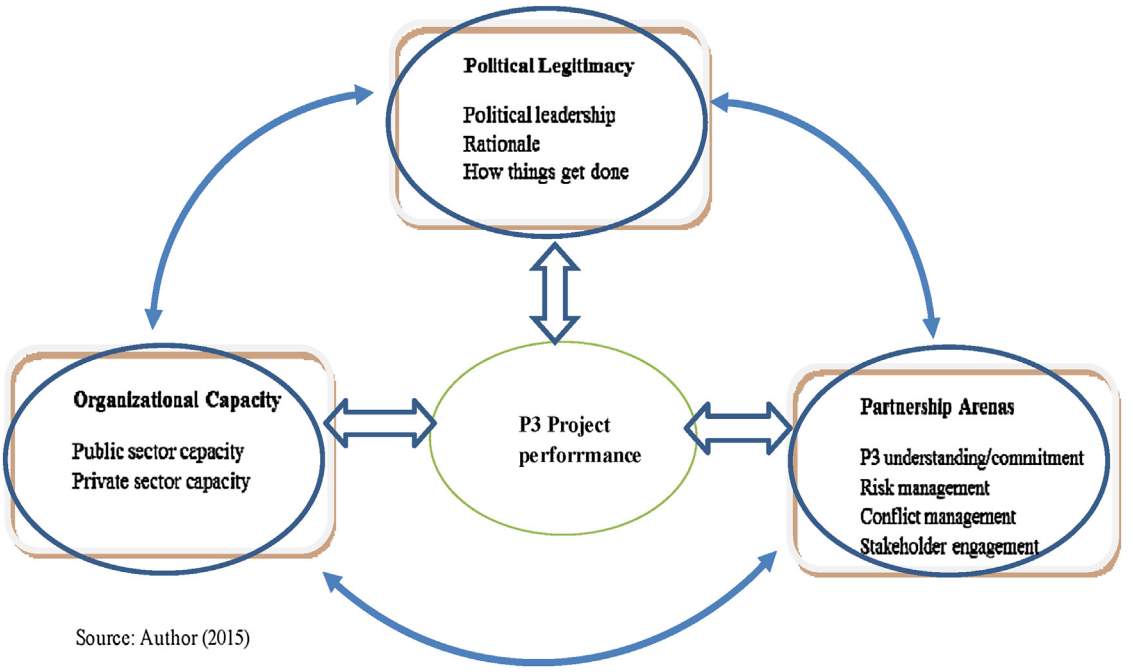

Fig. 2. Schematic of Alberta's Institutional Environment.

contextual changes from one stage to another, arising from the targeted policy interventions and organizational learning acquired from earlier projects. Note especially the increase in VfM realized as the projects grew in size with the added confidence that comes from the experience of prior P3 projects. Importantly, each stage set the tone for the succeeding one. Yang et al. (2013) document the relevance of a similar framework to explain the environment for P3s in transitional economies, arguing that a tripod that includes the market, the operating environment, and government support aspects of P3s.

6. Conclusion

6.1. Reflections on alberta's P3 institutional environment

Based on our findings, the Alberta P3 institutional environment could be categorized into three key elements: political legitimacy, organizational capacity and partnership arenas. Therefore, a proposed scheme (Fig. 2) arising from the Alberta P3 institutional environment is as follows:

1. **Political Environment** – *Political legitimacy*
   a Political leadership
   b Justification/Rationale
2. **B. Policy (Business/Project) Environment** – *Project/Partnership Arenas*
   a Collective understanding of and commitment to P3s
   b Risk management
   c Conflict management
   d Stakeholder engagement
3. **Organizational Environment** – *Organizational Capacity/Practices*
   a Public sector capacity
   b Private sector capacity

This research shows how the Alberta P3 has evolved and how the Alberta institutional environment elements have interacted to promote project success. This allows a formulation of the following empirical conclusions regarding the influence of the institutional environment on P3 project outcomes and by extension its impact on public infrastructure deployment and management:

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6.1.1. Supportive political and policy environments matter

Our findings suggest that a strong and continuing political leadership positively influences public sector capacity by enacting and implementing policy measures which improve public sector organizational capacity to identify, structure and govern P3 projects consistent with prior studies (e.g. UNECE, 2007; Grimsey & Lewis, 2004; Kwak et al., 2009). Kwak et al. (2009) identify governmental political and policy support as a critical element in the success of P3 implementation. How the institutional environment evolves plays a critical role in project outcome, and political support remains a key factor in determining the nature and process of evolution of the institutional environment for P3s. This re-affirms the centrality of political and policy support for P3 emergence and sustenance.

Given strong political support, there is a determined drive to focus on a successful implementation of P3s and learn the lessons for even greater future successes, especially where project linkages exist. However, in the absence of a strong political support, the institutional environment remains stagnant preventing opportunities for learning and future improvements. Drawing from the political and policy enablers, a knowledgeable and experienced public sector is able to operationalize these policies by designing projects that yield positive VfM. This positions the public sector for greater success as learning is consolidated, internalized and institutionalized as "a way of doing things." According to Shapely (2013), partnerships between the public and private sectors have historically been critical to the development of British cities since the nineteenth century, with several successfully completed projects.

Political legitimacy recognizes the role of the political establishment in providing the necessary political leadership and direction for P3s. What the Alberta experience shows and adds to our knowledge base is that, designating *a political champion*, (e.g. Premier, Minister, or P3 Agency) provides a publicly perceivable political support that articulates a realistic rationale/justification for P3s and communicates such rationale clearly in interactions with the citizenry, private industry, the public sector and other stakeholders.

6.1.2. Project performance (and program evolution) are path-dependent

We find that there is a *path-dependent* response at the institutional level to project outcomes, linked to committed political willingness to implement enabling policy measures that are supportive of P3 development. Evidence suggests that *path dependency* is a factor in play, as later developments depend on earlier events both at the policy and project levels, influenced by a strong and visible political support. In Alberta, the institutional environment changed with each project with the evolution of the overall institutional environment from one stage to another. This sequential transformation of the institutional environment captured in the individual projects is shown in the conceptual framework in Fig. 1. A noted advantage of this framework is that it captures the institutional contextual changes from one stage to another, due to the specific policy interventions and organizational learning acquired from earlier projects. In particular, increase in VfM was realized as the projects grew with the added confidence that comes from the experience of prior P3 projects. Therefore, each stage set the tone for the succeeding one, suggestive of *path dependency*. A process is path dependent if what happened in the past has an impact on the choices that are available or made in the present.

6.1.3. Elements of the institutional environment are mutually re-inforcing, creating synergy

We conclude that elements of the institutional environment react, affect and interact with other institutional environment elements in return, in diverse ways creating *synergy*. The institutional environment seems to evolve in two distinct phases – early and mature. In early P3 environment, there is a link between political willingness, public sector capacity and project outcome. Political willingness to implement P3s results in focused policy measures aimed at developing public sector capacity to identify, structure and govern projects successfully. The capacity for project design, structure and governance by the public sector improves the chance that value will be created for taxpayers, which eventually reinforces and strengthens the political support for P3s.

In a mature stage P3 environment, the institutional environment becomes more diverse – reacting with, influencing and interacting with each other in ways that are more complex than the early stage, and ultimately creates more *synergy* between the elements of the institutional environment. Building on the earlier political support and project success, public sector capacity is further enhanced by bigger and more sophisticated projects that are implemented, further drawing on the learning and experience of the prior phase(s). This is the pattern observed in the Alberta P3 evolution; as bigger and more sophisticated projects were implemented with increasing VfM. Importantly, this feeds the private sector capacity by attracting bigger industry players that bring deeper knowledge base and global experience to bear on the projects, thus, reinforcing the political commitment, predictability and entrenchment of the overall institutional environment. This conclusion is consistent with Jooste et al. (2011) finding that P3s are implemented differently in different regions. While the findings from the Alberta experience seem to validate this claim, it is the details of the implementation approach, considering its institutional environment that sets it apart.

An Uncertain P3 Future This study was undertaken towards the tail end of the 44-year period of political stability in Alberta (2013–2014). The political environment in Alberta changed with the election of a new NDP government on May 5, 2015. While the Anthony Henday projects have now been completed (October 1, 2016), and Alberta's P3 program seems to have sufficiently taken root toward institutionalization, there could still be changes. With a new government, future P3 policy direction is still emerging or uncertain. Prior pronouncements suggest that the new NDP government will axe P3s. Alberta political strategist, Steven Carter, opines, "Evidence so far is that the NDP is more likely to change than our culture is," "[Transport and Infrastructure Minister] Brian is allowing a P3 to construct the ring road [Calgary South West]. It goes

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completely against every principle he's spoken about in the legislature, but he did it because he's pragmatic and he wants to get things done" (Markusoff, 2015). The NDP government has pledged to complete ongoing P3 projects. However, on April 27, 2016, the NDP government suspended Alberta's P3 program pending a review.

6.2. Reflexivity and reflections on the role of accounting in P3s

While this study has focused on the emergence and enabling institutional environment for P3 adoption in a specific setting, the role of accounting, especially the related VfM issues that drive P3 accounting research and practice was of concern to the authors given the nature and scale of the decisions made and their impact on the provincial medium/long term fiscal sustainability. While we observed reported higher values of VfM from one P3 project to the next, we must engage with the question of the accounting treatment that is required to ensure proper accountability and protection of the public interest. For instance, how was the calculation and confirmation of VfM values determined, and how rigorous were these evaluations. We note that the provincial auditor found errors in a prior calculation (See Government of Alberta, 2003, regarding the Calgary Court Center that was initially planned, but later discontinued as a P3). Further, the disclosures around P3s have been limited, prompting the AG to harp on this issue twice in recent audits (Government of Alberta, 2003, 2010). In our view, Alberta's disclosure of the determination and components of VfM calculation is rather limited even by Canadian standards. Alberta does not disclose its VfM components (Ministry of Transportation, 2012). Recall that one of our government interviewees suggested as much when he said: "*There is still a public perception that we are not doing enough to tell the public about what we are doing and how we are doing it. Maybe we need to do more public enlightenment, maybe because they [the public] don't understand NPV*."

In response to these concerns and public perceptions, the GoA has taken some, but incomplete, steps to improve disclosure. While such steps suggest progress (such as publication of a VfM report showing aggregated numbers for VfM and the percentage of VfM created), we argue that they are grossly inadequate compared to the standards in the Ontario province of Canada. For instance, Ontario makes detailed VfM component disclosures showing base cost, transaction costs, retained risk, financing and ancillary costs (Siemiatycki & Farooqi, 2012). This decomposition of VfM enables an independent verification of VfM realized both *ex ante* and *ex post*. Accounting researchers and practitioners have a significant role to play in exposing all actual and/or potential manipulations of the *ex ante* calculations to favour P3s. Further research is needed in the *ex-post* evaluation of these claimed VfM now that Alberta's P3s project is advancing in age (SEAHD will be 10 years in operation in 2017). A post project evaluation is needed to check against VfM claims made at project inception and implementation. Again, accounting has a role in reviewing these VfM claims to determine the extent to which they have been met.

Relevance of findings for:

- accounting practice – With P3 standards now being developed in Canada and several other jurisdictions, accountants have a role to play in understanding the impact and implications of the risk transfer element of VfM determination that is central to P3 accounting. Risk related to assets assumed and carried by the government can be substantial and often be undervalued. In transferring such risks via a P3 to the private partner, government frees itself of the asset-related carrying cost and thus enhances its cashflow position (Grimsey & Lewis, 2002). Accounting practice must ensure that P3s are recognized on the balance sheet of the public sector client, whether as a service concession or as a lease (Heald & Georgiou, 2010).
- accounting research – Broadbent and Laughlin (2003) argue that P3 adoption comes with extensive technical accounting and auditing research questions. Centrally, the issue of whether P3s generate higher VfM than the traditional infrastructure procurement (TIP) remains contested and merits further enquiry (Heald 2003). Furthermore, accounting must remain focused on the actualisation of the risk transfer that is so critical to P3 decision and success. In our view, the claim of VfM realisation is insufficient. More work is needed in understanding how this risk transfer mechanism works given the unsuccessful experience from UK's IT project (Edwards & Shaoul, 2002). Consistent with Heald and Georgiou (2011) that the "classificatory function" (p. 218) of accounting has profound impact on public policy, we posit that accounting research needs to become actively engaged in determining which side of the line government transactions are classified and thus help advance public policy for the greater public interest. Accounting must insist on the economic substance of the transaction so that best policy decisions are made regarding the best route to infrastructure acquisition. VfM may fall into disrepute if project evaluation is manipulated to secure a desired outcome or on the basis of a favourable accounting treatment. We conclude, as in a prior study, that distortions to accounting that take P3 assets and the related liabilities off-balance sheet diminish transparency and undermine public accountability, and this must be avoided, as it could damage P3s as an instrument of public policy (Heald & Georgiou, 2010).

Mauthner and Doucet (2003) in their reflexive accounts call for greater reflection and accountability by encouraging researchers to not just consider the multiple filters and forces that influence their research. In adopting an interpretivist approach to our study, we acknowledge the authors' slight proximity to the project arena during the study. As resident taxpayers, road users and researchers all at once, we demonstrate that some proximity to the research setting or pre-study familiarity with the setting may present a bias challenge for researchers.

That said, significant effort was made during the fieldwork to minimise our potential biases informed by our chosen theoretical lens and our status as taxpayers in the province. In particular, we endeavoured to distance ourselves from any

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potentially compromising situations with organizational participants. For example, we declined opportunities for research funding that was available from government sources and also rejected any such offers from private corporate sources. To maintain some degree of independence as researchers, we decided not to accept any grants or funding for this research right from the outset. While these are necessary steps that were taken to avoid bias in the fieldwork, as interpretivist scholars, our prior training and view of the world cannot be completely bracketed out in their entirety.

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