Improving the Link between Project Management and Strategy to Optimise Project Success

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

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DECLARATION

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by a third part is acknowledged; and, ethics procedures and program guidelines have been followed.

Duro Kolar
February 2017
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The existence of such an expressed relationship cannot prosper nor harmonise without co-supervision, thus, I also owe a special gratitude to Associate Professor Peter S.P. Wong my co-supervisor, for his insightful comments, support and encouragement to overcome the bearing of life’s toils. Although words cannot truly express such gratitude, your invaluable insight and altruism is demonstrated in the high-quality postgraduate-supervisor working relationship.

Such research relational-oriented supervision has achieved a state of transcendence: a meaning or purpose larger than ourselves.

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‘Upon those who step into the same rivers, different and again different waters flow.’ (McKirahan 2010, p. 118, quoting Heraclitus).
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# ABBREVIATIONS AND ACRONYMS

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<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ANAO</td>
<td>Australian National Audit Office</td>
</tr>
<tr>
<td>BER</td>
<td>Building the Education Revolution</td>
</tr>
<tr>
<td>COAG</td>
<td>Council of Australian Governments</td>
</tr>
<tr>
<td>GovHK</td>
<td>Hong Kong Government</td>
</tr>
<tr>
<td>HMG</td>
<td>Her Majesty’s Government</td>
</tr>
<tr>
<td>LegCo</td>
<td>Legislative Council of the Hong Kong Special Administrative Region of the People’s Republic of China</td>
</tr>
<tr>
<td>MoD</td>
<td>Ministry of Defence</td>
</tr>
<tr>
<td>NAO</td>
<td>National Audit Office</td>
</tr>
<tr>
<td>PM</td>
<td>Program Manager</td>
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<tr>
<td>PMO</td>
<td>Program Management Office</td>
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<tr>
<td>PO</td>
<td>Program Owner</td>
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<tr>
<td>POR</td>
<td>Program Owner Representative</td>
</tr>
<tr>
<td>VAGO</td>
<td>Victorian Auditor-General’s Office</td>
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PUBLICATIONS AND PRESENTATIONS

Citations for conference publications include:


Citations for conference presentations include:

ABSTRACT

Research indicates that the implementation of mega public sector infrastructure projects continues to fail to achieve most of their strategies and benefits, which causes tremendous loss in productivity and profitability, whilst impacting organisational performances and stakeholder morale. When it comes to implementing or taking a mega project policy into action, such as an economic or social mega infrastructure project, even though it may be clear and concise, it tends to go ‘out of control,’ changes or even becomes manipulated in varying degrees and intensity over varying periods of time. There is little information as to why these phenomena occur. It is estimated that the current spending on megaprojects is USD $6-9 trillion a year, roughly eight percent of global GDP, labelling it as the ‘biggest investment boom in human history,’ which can serve real needs, meeting the expected surge in the demand for food, water and energy. However, such effort is likely to be counterproductive and unsustainable, as a significant proportion of megaprojects have substantial cost and time overruns, which impacts productivity, profitability, organisational performances and stakeholder morale. This represents a rather disastrous situation for policy-makers, as public deficits are increasing, whilst institutional and non-institutional investors are reluctant to invest in such projects.

This research aims to investigate factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. This also includes the exploration of an effective governance mechanism to optimise its success. Particularly with a focus on a muddled and strategic context i.e., complex, dynamic, intricate, plural and emergent properties of organisational strategic decision-making, intertwined in often unforeseen ways between different agency and actor (inter)actions. This research adopts an interpretivist worldview with an ontological stance, and focuses on case study as a methodological approach. The case selected is the AUD $14.7 billion Building the Education Revolution (BER) program (around 24,000 infrastructure projects for about 9,500 schools). The research then employs a grounded theory methodology to facilitate the generation of new theory.

Four Australian state government agencies and five non-government agencies were selected for this research. In-depth interviews were conducted with 17 participants from executives to project managers, and six subject-matter experts provided validation on the research propositions that emerged from the findings via a modified Delphi technique.

These results lead to a conceptual model for the successful implementation of mega public sector infrastructure program of projects. A key finding is that strategically shaping institutional project reality aligned at the front-end with the temporary uniqueness of the organisational change initiative is essential.
in achieving program strategies and benefits. In particular, significantly increasing megaproject performances.

This finding has implications for project management theory and practice. In particular, the importance of collective institutional leadership, informal and formal mechanisms of institutional project work, project reality, and entering a state as a rational agent for the successful implementation of mega public sector infrastructure program of projects. The outcome of this research will improve our understanding of how megaprojects, taken from a public policy perspective, and subsequent mandated or prosecuted action interacts: strategy development and its interpretation into action. Being in such a position, agencies including policy-makers will be able to identify the best courses of action and optimise choices in achieving project and program strategies and benefits.
CHAPTER ONE: INTRODUCTION

1.1 Chapter Introduction

Chapter One Prologue

What this chapter does:
The introduction provides the context of the research, problem statement, research rationale and significance, relevant literature, research questions and proposition, research design and approach, thesis structure and research limitations.

What the remaining chapters do:

- Chapter Two will provide a critical review and analysis of the relevant literature related to the research topic.
- Chapter Three will expand the literature review and critically review and analyse the relevant literature related to the research topic. This will lead to a conceptual framework and proposition.
- Chapter Four will discuss the research context, paradigm, methodology, and the case study approach in conducting the research.
- Chapter Five will discuss and describe the case study and the organisations selected as case studies.
- Chapter Six will provide the data analysis and interpretation of the case study.
- Chapter Seven will provide the validation of the case study research through a few mechanisms.
- Chapter Eight will provide evidence and reflections of the research process.
- Chapter Nine will provide the findings, insights and recommendation for practice and future research.

The strategy research process is like a river. Many researchers take a sample of water from a river, or a number of samples, in order to get a statistically valid result. These samples describe something about the river – water quality, clarity, temperature, etc. However, they say little about its dynamic quality, the flow of the river ‘where it has been and where it is destined’; how the surrounding terrain affects, and is affected by, the river; the impact of exogenous factors like rainfall or drought. (Chakravarthy and White 2002, p. 200)
Chapter One: Introduction

This river metaphor helps to understand the dynamics and larger process of strategy research, or the research stream, which cannot be explored nor explained by static samples. This is like case study research. According to Verschuren (2003, p. 137) case study research is:

A research strategy that can be qualified as holistic in nature, following an iterative-parallel way of preceding, looking at only a few strategically selected cases, observed in their natural context in an open-ended way, explicitly avoiding (all variants of) tunnel vision, making use of analytical comparison of cases or sub-cases, and aimed at description and explanation of complex and entangled group attributes, patterns, structures or processes.

This is especially suitable for studying highly complex phenomena, such as the implementation of government policy (see Tight 2010). This suggests that it is more appropriate to ‘see’ case study as a research process (Tight 2010, Verschuren 2003), like the river metaphor – a holistic, dynamic and complex process requiring detailed examination of phenomena in its context i.e., the flow of the river.

The main streams of themes dealt with in the thesis relate to strategy development and its interpretation into action (or practice) in the means-end relationship on the implementation of mega public sector infrastructure projects. Decisions related to megaprojects, such as economic and social infrastructure projects, are generally guided by government policy rather than the market (see Brookes and Locatelli 2015, Sanderson and Winch in press, Yescombe 2011) involving a significant plurality of influential stakeholders (Peters and Zittoun 2016). Although the research focuses on the implementation of mega public sector infrastructure program of projects, it is noted that the words ‘project’ and ‘program’ - implying mega public sector program of projects – will be used interchangeably throughout the thesis unless specified otherwise. Furthermore, for this research implementation means: the process of putting a decision or plan into effect (Oxford Dictionaries 2016). From a public policy or program policy perspective, implementation means ‘what happens between policy expectations and (perceived) policy results’ or the means to achieve a desired end (Hill and Hupe 2002b, p. 2). Although researchers are ‘mixed’ on the policy/implementation nexus (see Hupe and Hill 2016), this research takes a hybrid policy/implementation approach incorporating control, institutional and comparative dimensions (Hupe and Hill 2016), thus seeing the relationship between policy formation and implementation as one holistic process. Such a view is typical of Federalism (May 1995, Ward 2010). From a project perspective, although there are numerous definitions of a project (see Turner and Müller 2003), project is defined for this research as ‘a temporary organisation to which resources are assigned to do work to deliver beneficial change’ (Turner et al. 2010, p. 14). This includes the fundamental concepts of time (it is finite), task (focuses on action; a task must be accomplished, it is finite), team (interdependent and legitimate sets of people working together: collective agents), and context (inextricably embedded organisationally and socially: its institutional ‘thickness’ or embeddedness) (Bakker 2010). Whereas, programs are defined as:
Frameworks (of various configurations) to coordinate, communicate, align, manage, and control (primarily ‘project’) activities to achieve a desired synergy, benefits, outcome, or vision. A (goal-oriented) program’s vision and hence its success criteria are usually more strategic, and so program outcomes are less tangible than might be found in or desired of projects. Compared to projects, programs are emergent in terms of their content, scope, and final outcome, have a far less definite time horizon, and are far more embedded within the political, cultural, and governance norms of the organisation or community they seek to serve. They draw upon the contribution and participation of diverse stakeholders. Program (managers) operate in ‘grey’ environments and deal with powerful political forces and greater pluralism (Pellegrinelli et al. 2012, p. 259).

Furthermore, the term program of projects is defined as ‘a temporary organisation in which a group of projects are managed together to deliver higher order strategic objectives not delivered by any of the projects on their own’ (Turner and Müller 2003, p. 7). But, to whom? According to political theorists (see Klosko 2013, p. 46), quoting Machiavelli, ‘The good ruler must learn to be bad – though while hiding this from his credulous subjects. In large part, the evil aura surrounding Machiavelli’s name stems from his merciless assault on what people like to believe – and what their rulers like them to believe.’ For the unravelling of just ‘thoughts’ will be revealed in this thesis. This raises an interesting paradox of ‘who benefits’ relating to the beneficiaries of project outcomes as well as the impact of project delivery processes employed. We may consider this aspect from an ethics and a power perspective. A utilitarian outcome view – consequentialism – assumes that the end justifies the means taken from a Machiavellian perspective but on the other hand we could take a process perspective – deontological ethics – where just, open and transparent processes are of central importance to the way that a project is delivered (Helgadóttir 2008).

Davis in his paper ‘That’s Interesting!’ (Davis 1971) argues that an interesting thesis or paper will focus upon a paradox and explore and investigate it in a way that illuminates theory gaps and contexts that explain how the paradox may arise and how it may be resolved or coped with. Much of this thesis deals with the paradox of the means-end paradox of project success and the paradox of who may be considered the rightful beneficiary of a successful project outcome.

1.2 Research Problem

Research indicates that the implementation of mega public sector infrastructure project policies continue to fail to achieve most of their strategies and benefits, which causes tremendous loss in productivity and profitability, whilst impacting organisational performances and stakeholder morale (Flyvbjerg 2012, 2014, Forthcoming, Flyvbjerg et al. 2003, Patanakul et al. 2016, Patanakul et al. 2012, Williams 2005). When it comes to implementing or taking a government project policy into action, even though it may be clear and concise, it tends to go ‘out of control,’ changes or even becomes manipulated in varying degrees and
intensity over varying periods of time: a stream of pollutant quality (Flyvbjerg 2005, 2007, 2009b, 2014, Flyvbjerg et al. 2009, Flyvbjerg and Molloy 2011). For example, hidden and open agendas, actors within and outside of government controlling or shaping government project policies with illusions, deception, manipulation and brute external force. Scholars are baffled with the unexpected moves within policy processes and unanticipated outcomes (Edelenbos et al. 2009, Van Buuren and Edelenbos 2006, Van Buuren et al. 2009). Such phenomena can be seen from a Machiavelli’s lens during the Roman Empire: ‘although some policies seemed to have good results (successi) at first, the end [il fine] was unexpected and the cause of much evil [in-aspettato e cagione di assai male]’ (Benner 2009, p. 326). There is little information as to why these phenomena occur.

1.3 Rationale and Significance for the Research

The ideas leading to this research study, or underlying rationale, is partly built from the author’s background as a steering committee member on an Australian state government mega infrastructure project taskforce, which was urgent and unexpected, fulfilling objectives of an overarching crisis program. The overarching program was the Australian Government’s AUD $14.7 billion Building the Education Revolution (BER) program. The taskforce oversaw the implementation of a mega infrastructure project to the value of about AUD $1 billion in the period of 2010 to 2012. The in-action and on-action experience in the taskforce aroused the author’s attention about how outcomes of the mega infrastructure project of intangible complexity and high political importance may be affected by stakeholder (inter)actions and the balance of tribal powers1.

Despite the fact, the particulars of the project taskforce cannot be disclosed due to confidentiality reasons, I can reveal that the taskforce involved highly experienced, knowledgeable and powerful individuals i.e., hand-picked project team members, including ministers, executives, senior government project managers, senior external project managers from a large international consultancy firm, and a dedicated team of solicitors. It can also be revealed that the project was an apparent constituent project of the BER program. Some similarities with the project taskforce and the BER program are: urgent and unexpected (a ‘crisis’), megaproject requiring rapid implementation, and operated in a highly complex institutional environment at the edge of chaos. The project taskforce had clear strategic objectives and outcomes directed by state government, but subsequently failed to achieve most of its strategies and benefits. This led to significant cost and time overruns, impacted organisational performances and stakeholder morale, and eventually led to the demise of the ruling government. This failure may be attributed to many complicated and complex

1 The concept of tribal powers within this research project is seen as factional interests and power structures (Smith and Winter 2010), which can also be seen as Machiavellianism (Adams 1997, Bass and Bass 2008), within a public sector organisational project context.
intertwined issues emanating from the stakeholder environment. For example, although the strategies of 
the project where clear and concise, apparently different individuals and groups had different images, or 
interpretations, on the implementation of the project with tribalistic traits, which was eventually seen as 
‘Machiavellianism.’ Basically, Machiavellianism stands for power, deceit, coercion and using any means 

This led me to question the reasoning behind mega infrastructure project policy failure based on my 
observations on the (inter)actions amongst and between individuals and institutions during project 
implementation, particularly at the front-end. For example: Why do individuals and groups form powers of 
coalition to implement project’s their way? Why do individuals overpower projects with self-serving or 
group interests? Who ‘really’ makes project decisions? What are the main factors that influence, or 
perhaps shape, strategic decision-making on mega infrastructure project policies? Who has the most 
influential power on projects? How do individuals exercise power? What is the best way to manage or cope 
with tribalism and Machiavellianism to implement a successful project policy? All these questions led to a 
major research theme: Is there any empirical support that a mega public sector infrastructure program of 
projects can be successfully implemented from a muddled and strategic context, intertwined in often 
unforeseen ways between different agency and actor (inter)actions? The establishment of this research 
theme became the starting point of this PhD study.

Although there is abundant literature on project policy implementation and its effect on project success2, 
such as significant cost escalations and time overruns (see Flyvbjerg 2012, 2014, Flyvbjerg et al. 2003, 
Legac et al. 2014, Love et al. 2012, Williams 2005); however, few have touched into the context of how 
these effects came to realisation. What is more, leading scholars clearly indicate that research on policy 
implementation is in deficit (see Peters and Zittoun 2016, Saetren 2014).

The significance of this research instigates from the ancient Egyptian monuments to contemporary 
infrastructure projects. Examples of implementing iconic project policies can be seen from the distant past, 
for example by the Egyptians with the pyramids (Morris 1994), the Greeks with the construction of the 
Temple Zeus Basileus in the fourth century BC (Pitt 2014), the Roman Empire (Walker and Dart 2011) and 
in ancient China (Pheng 2007). Contemporary mega infrastructure project policy implementation examples 
have ‘enjoyed a symbolic, often even religious, connotation’ (Morris 1994, p. 4) are also evident (Flyvbjerg 
Forthcoming). A key feature of these projects was that: the end always justified the means for the

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2 Success from a policy perspective is seen from a realism position, and basically means, ‘a policy is successful insofar 
as it achieves the goals that proponents set out to achieve. From a project policy perspective, this is the achievement 
of project policy objectives and outcomes. However, only those supportive of the original goals are liable to perceive, 
with satisfaction, a policy success. Opponents are likely to perceive failure, regardless of the outcomes, because they 
did not support the original goals’ (McConnell 2010, p. 225).
‘emperors,’ who were seen as gods or goddesses (Wasson 2014). According to Walker and Dart (2011, p. 8) an ‘emperor’ would attach ‘one’s name to an important piece of public infrastructure to enhance personal prestige.’ Other common characteristics are: public-private partnerships, ‘slave’ labour, an ‘emperor’ exercised control (i.e., hierarchical decision-making), legal and other formal frameworks, political ethics behind the means-end relationship, and minimal knowledge transfer (see Bredillet 2014, Pheng 2007, Walker and Dart 2011). Little has changed from the means-end perspective where the end always justifies the means for ‘emperors,’ or with the implementation of contemporary project policies for elite politicians.

Upon implementation, project policies experience the adverse effects of the ‘iron law of megaprojects’ through a Machiavellianism lens, which not only causes tremendous cost and time overruns, but demoralises the project environment where government portfolios and industry sectors struggle to survive. Cries for help continue to perpetuate the project management and government policy sectors with some calling it a fiasco (Bovens and ‘t Hart 2016) resulting in neither policy delivery or positive political reputation or absolute ‘insanity’ (Morris 2008). Which perhaps could not be further from the truth, as Albert Einstein supposedly once said, ‘the definition of insanity is doing the same thing over and over and expecting a different result’ (Gingrich and Varroney 2010, Morris 2008, quoting Albert Einstein). This implies that such insane fiascos for project policy implementation are the rule rather than the exception, where a solution must be hastily found. Both in the scholarly community and professional project management practice, the future of project policy implementation looks rather oblique and treading on traditional contagious grounds – or on a project policy minefield. In addition, the scholarly and practitioner community clearly indicate that we are seeing the implementation of project policy ex ante or even prima facie – in other words we are in a perpetual state of fighting the last project war, but instead we should be asking: ‘In what ways can we prospectively imagine how to better fight the next war?’ (Corley and Gioia 2011, p. 25, emphasis in original). This is the significance of this PhD research thesis: to implement a better way to fight the next project policy war. As Bovens and ‘t Hart (2016, p. 662) state ‘big policy failures can be, but all too seldom are, a trigger for big policy learning that reduces the likelihood of their reoccurrence.’ The World Economic Forum also augments this view (Alexander 2015).

To understand this requires depth and breadth in the research process, an understanding of how project policy ‘emperors’ and ‘troops’ fight project wars, the tools needed to succeed, which may in Bovens and ‘t Hart (2016, p. 663) words: ‘generate terrible unintended consequences.’ Preventing such insane project

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3 In ancient times, slave labour was common, and such commonality where contractors are ‘slaves’ to an ‘emperor’ with limited ‘degrees of freedom’ can be seen in modern project environments (Lingard et al. 2012).

4 Machiavellianism is associated with the ‘doctrine of moral expediency and deviousness in political action; the divorce of politics from private morality; and the justification of all political means, even the most unscrupulous when the interests of the state are at stake’ (Ramsay 2012, p. 3). Almost 500 years after Machiavelli, man is still searching for inner meaning, balance, and an equal position in governance – interpretations of our reality – a position similar to where Machiavelli was in his world (Easley and Swain 2006).
policy fiascos – implementation failures – requires research into two fundamental phenomena to improve our understanding of how megaprojects, taken from a public policy perspective, and subsequent mandated or prosecuted action interacts: strategy development and its interpretation into action.

1.4 Research Aim and Objectives

Given that the implementation of mega infrastructure projects continues to fail to achieve most of their strategies and benefits, where decisions are generally guided by government policy rather than the market, the aim of the research is to investigate factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. This also includes the exploration of an effective governance mechanism to optimise its success. Particularly with a focus on a muddled and strategic context i.e., complex, dynamic, intricate, plural and emergent properties of organisational strategic decision-making, intertwined in often unforeseen ways between different agency and actor (inter)actions. The main thrust of this argument, and its limitations thereof, is based on that fact that there are no identifiable and influential decision points in the organisational project policy process, thus avoiding Wilsonianism i.e., clear distinction between politics and administration, which can often produce ambiguous results (Hupe and Hill 2016). This truly signifies the process in understanding the means-end relationship on project policy implementation. The principal objectives of the research are:

i. To examine and evaluate the literature on project strategy and the front-end, decision-making theory, external and internal environmental factors that influence organisational strategic decision-making, governance and policy implementation.

ii. To develop a plausible and working proposition, and a conceptual framework for the design and conduct of the research.

iii. To identify and evaluate principal factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects.

iv. To develop a conceptual framework to that can be used in research and practice to optimise the successful implementation of mega public sector infrastructure program of projects.

v. To suggest ways of improving project sponsors (policy-makers) and project manager’s decisions towards the successful implementation of mega infrastructure projects.

In summary, research objectives (i)-(ii) aim to provide literature on the concepts that influence the successful implementation of mega public sector infrastructure program of projects; and objectives (iii-v) are designed to validate the proposition and conceptual framework aimed at optimising the successful implementation of mega infrastructure projects.
1.5 Relevant Literature

A critical review and analysis of the relevant literature (i.e., leading concepts, theories, data and patterns) to the research problem is discussed in Chapter Two and Three. However, to assist readers, table 1-1 was created to highlight the emergent themes and rationale for the relevant literature. This enabled me to deeply understand factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects.

Table 1-1: Summary of Relevant Literature by Themes and Rationale

<table>
<thead>
<tr>
<th>Literature Themes</th>
<th>Relevant Literature</th>
<th>Rationale</th>
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<tbody>
<tr>
<td>Project strategy and the front-end</td>
<td>Artto et al. (2008b), Carter et al. (2015), Chakravarthy and White (2002), Hosking (2007), Kay et al. (2006), Lawrence et al. (2009), Macmillian and Tampoe (2000), Snowden and Boone (2007), Uhl-Bien (2006), Uhl-Bien and Marion (2011), Walker et al. (2008b), Watkins (2009), Wensley (2003).</td>
<td>The implementation of project strategies tends to be seen as a linear or rational function, cascading from organisational strategies. Considering it often fails to achieve its strategies and benefits, a better understanding is needed of how project strategies are implemented, particularly the front-end and strategic intent behind project policy implementation.</td>
</tr>
<tr>
<td>Decision-making theory</td>
<td>Buijs et al. (2009), Child et al. (2010), Eisenhardt and Zbaracki (1992), Langley et al. (1995), Mintzberg and Westley (2010), Morris et al. (2010), Müller et al. (2008), Nutt and Wilson (2010), Parkin (1996), Pentland and Feldman (2005), Pettigrew (2003), Rainey et al. (2010).</td>
<td>Decision-making on the implementation of project policies is seen as a rational and easy process. But completely on the contrary. It is strategic, complex, dynamic and characterised by plurality within agency actor (inter)actions. To understand these phenomena, strategy development and its interpretation into action, requires an understanding of how organisational actors ‘make’ strategic decisions for the implementation of project policies. This also requires an understanding of the ethics behind decision-making, and the internal and external factors that influence organisational strategic decision-making.</td>
</tr>
<tr>
<td>Ethics</td>
<td>Bredillet (2014), Clarke and Fuller (2010), Clegg et al. (2007), Elm</td>
<td>Ethical decision-making on the implementation of policies is highly</td>
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Improving the Link between Project Management and Strategy to Optimise Project Success

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<tr>
<th>Literature Themes</th>
<th>Relevant Literature</th>
<th>Rationale</th>
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<td>and Radin (2012), Helgadóttir (2008), Müller et al. (2013), Rossouw and Van Vuuren (2003), Selsky and Parker (2010), Sendjaya et al. (2016), Van Prooijen and Ellemers (2015), Vurro et al. (2010), Walker et al. (2008a).</td>
<td>complex and contains areas of grey, which tends to be seen from a consequentialism lens. To make better ethical decisions, particularly from a social perspective, requires an understanding of the complex network of relationships including the process of institutional sensemaking, strategic collaboration, and deontological ethics.</td>
<td></td>
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<tr>
<td>External environmental factors that influence organisational strategic decision-making on project policy implementation</td>
<td>Allison (1971), Artto et al. (2008a), Bourne and Walker (2005), Child et al. (2010), Clegg et al. (2006), Flyvbjerg et al. (2009), Mintzberg (1983), Pierre (2006), Sallinen et al. (2013), Vuori et al. (2013), Wilson (2003).</td>
<td>Organisational strategic decision-making tends to be influenced, or shaped, by the external project policy environment – for the better or worse. Internal organisational actors tend to surrender a significant proportion of their ‘power’ to external powers which influences project policy outcomes. This can lead to the demise of decision makers and government agencies. Consequently, this requires an understanding of the external powers of influence on project policy implementation.</td>
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<tr>
<td>Internal environmental factors that influence organisational strategic decision-making on project policy implementation</td>
<td>Allen (2003), Andersen et al. (2009), Clegg et al. (2006), Eisenhardt and Iii (1988), Flyvbjerg (1998), Gohler (2009), Haugaard and Clegg (2009), Jarzabkowski (2008), Mintzberg (1983), Pfeffer (1992a), Shrivastava and Grant (1985), Williams and Samset (2010), Wilson (2003).</td>
<td>Similar to the external project policy environment, organisational strategic decision-making tends to be influenced, or shaped, by the internal project policy environment. Organisational actors tend to form powerful relations to influence project policy outcomes. Consequently, this requires an understanding of the internal powers of influence on project policy implementation.</td>
</tr>
<tr>
<td>Governance and policy implementation</td>
<td>Ahola et al. (2014), Bijlsma-Frankema and Woolthuis (2005), Caers et al. (2006), Chiles and McMackin (1996), Das and Teng</td>
<td>Governance tends to focus on the interactions between government organisations, and the dependency thereof on, the wider societal organisations for</td>
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Chapter One: Introduction

<table>
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<tr>
<th>Literature Themes</th>
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<td>(2001), Dietz et al. (2010), Edelenbos et al. (2010b), Fast et al. (2012), Fiss (2008), Flyvbjerg (2009a, 2009b), Foss and Stea (2014), Meyerson et al. (1996), Müller (2012), Puranam and Vanneste (2009), Teisman et al. (2009a), Van Ees et al. (2009), Vickerman (2007), Walker and Jacobsson (2014).</td>
<td>project policy implementation. Here government tends to be the controlling entity with high levels of cognitive biases in rationalising decisions, which significantly impacts, rather negatively, project policy implementation. To understand this ‘demoralising’ phenomenon and optimise project policy success requires an effective governance mechanism for project policy implementation.</td>
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1.6 Research Questions and Proposition

The literature review shows significant gaps in the knowledge about factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects, particularly, from a muddled and strategic context, intertwined in often unforeseen ways between different agency and actor (inter)actions. The literature shows that the concept of strategy, decision-making, and power in and around organisations has been studied in-depth and in different contexts. What is missing are research studies showing clear guidance and insight for understanding influential factors on organisational strategic decision-making, and an effective governance mechanism for mega public sector infrastructure program of projects implementation. Consequently, this research study will seek to answer the following questions, which were derived from the literature review:

**RQ1** To what extent and how do the external factors of economic environment, social environment, political, and expert knowledge influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects?

**RQ2** To what extent and how do the internal factors of power and politics, information and knowledge, culture, and governance influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects?

The first research question focuses on the external, and the second on the internal, factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. The relative ‘openness’ of these research questions allows for flexibility and an interactive approach to the interviews with the aim to generate interviewees’ accounts of their own
perspectives, perceptions, experiences, (inter)actions, etc. This will enable me to obtain a deep understanding of the phenomenon under question and develop a conceptual framework.

Based on the analysis of the literature review, the following plausible and working proposition was developed and articulated which guided the research process:

**Proposition:** Project management, seen as an instrumental technocratic process, is in fact an institutional emergent process which leads to the successful implementation of mega public sector infrastructure program of projects.

### 1.7 Research Design and Approach

To understand factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects, I needed to delve deeply into the organisational strategic decision-making process. This directs to a study about the (inter)actions of agencies and actors. The political and project environment, and how these (inter)actions, their means and patterns thereof to achieve desired ends, influenced project policy outcomes – their temporary institutionalised project reality.

This research adopted an interpretivist worldview with an ontological stance. Interpretivism enables the researcher to understand (*Verstehen*) the world of human experience (Mackenzie and Knipe 2006, emphasis added). Ontology is the philosophical study of the reality or nature of being. One of the reasons for conducting case study research with an ontological stance is the conviction that such cases reflect the reality of a situation or process (*Encyclopedia of Case Study Research* 2010, p. 630). Taken together, ontology (i.e., subjectivist) and epistemology (i.e., interpretivist) are related in commonsense actions and interactions, and from a research methods perspective, semi-structured interviews, case studies or grounded theory are used to explore different meanings, perceptions, and interpretations of organisational actors (Cunliffe 2011, Scotland 2012), which is particularly dominate in project management research (see Biedenbach and Müller 2011).

A case study is a commonly used method to study organisational behaviour, seen from either a qualitative or quantitative stance, or even combinations of them (*Encyclopedia of Case Study Research* 2010), which enables a researcher to explore real-life, contemporary bound system (a case) over time, through detailed, in-depth data collection from multiple sources (Creswell 2013, Yin 2014). The selection of the case study was strategically based on the research goal, type of causal effect, and level of analysis, basically, a focus on the cross-case characteristics, sufficiency and necessity of a case: how the case fits into the theoretically specified population (Seawright and Gerring 2008). The AUD $14.7 Building the Education Revolution (BER) program meet such strategic characteristics, and subsequently, was selected as the case study. Additionally, the program was unique in terms of how the Australian government had to respond to the
global financial crisis with rapid implementation of the program to stimulate the Australian economy, which required co-operation among federal, state and territory governments and the non-government education sector. The program’s aims were to provide rapid construction of school-based infrastructure, and build integrated learning environments. Furthermore, to understand organisational strategic decision-making on the implementation of the program, I deeply analysed the creation and evolution of influential environmental factors in their context. I traced the origin and effects of these influential factors on organisational strategic decision-making through semi-structured interviews and document analyses. I also made a conscious effort not to define the boundary of the case study too narrowly prior to the study.

1.8 Thesis Structure

This thesis contains nine chapters including a literature review. The literature leads to a conceptual (or literature mind map) framework for the successful implementation of mega public sector infrastructure program of projects, which evolved throughout the research process. Thereafter, the thesis explains the research methodology which includes a case study approach. The final chapter includes the conclusions and recommendations. The outline of the thesis is as follows:

Chapter Two Literature Review (Part I)
This chapter provides a critical review and analysis of the relevant literature related to the research topic including project strategy and the front-end, and decision-making theory (‘the emergent themes’). This will be an evolving chapter throughout the research and will ask questions such as: How are project strategies implemented? How are strategic decisions made in public and private organisations?

Chapter Three Literature Review (Part II)
Chapter Three expands on the second chapter of the literature review and critical reviews and analyses the relevant literature on external and internal factors that influence organisational strategic decision-making, governance and policy implementation (‘the emergent themes’). Chapter two and three are evolving chapters throughout the research and will ask questions such as: What external and internal environmental factors influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects? How can we implement a governing mechanism for project policy success? The literature review ends with a conceptual framework providing a detailed relationship analysis of the core mechanisms or concepts and their associated activities based on the assumptions from the literature review and a plausible proposition. The conceptual framework and proposition will also be revised and refined throughout the research process.
Chapter Four    Methodology and Research Design
Chapter Four will discuss the research context, paradigm, methodology and method (case study approach supported by qualitative methods of semi-structured interviews, modified Delphi technique, reflections, and documentation), case organisations, research instruments, and the triangulation of the case study data.

Chapter Five    Case Study Data
In this chapter, I discuss and describe the case study and the organisations that were selected as case studies. This also includes a general background of each organisation including their relationships, and project policy implementation plan. A key objective is to achieve depth of data (triangulation and thick description) to generate substantive evidence and rich understandings about the case study – thus increasing its credibility and applicability. This information forms the platform for data analysis and interpretation.

Chapter Six    Data Analysis and Interpretation
Chapter Six consists of preparing and organising the case study data; describing, classifying and interpreting the data into codes, categories and themes; and interpreting and presenting the data. NVivo was used to code and categorise the data. The intended analytical strategy was to follow the theoretical proposition initially proposed in the research study, and the intended analytical tactic was to use pattern matching which will assist to strengthen the internal validity of the research study.

Chapter Seven    Validation of Findings
Chapter Seven provides the validation of the case study research which is achieved as follows. Construct validity with the collection of multiple sources of information, review of transcripts by participants, clear chain of evidence, explanation of data collection and data analysis, and a modified Delphi technique; internal validity through theory triangulation; external validity through explaining the rationale for the case study selection and details of case study context; and reliability through case study protocol and the case study database.

Chapter Eight    Research Reflections
In this chapter, I intend to provide reflections of the research process. Evidence of reflection are provided by a journal (or research diary), including the exploration of ideas and concepts, linking theory to practice, and documenting my development as a researcher. This also added to the validation of the research process.

Chapter Nine    Conclusions and Recommendations
Chapter Nine provides the findings, insights and recommendations for practice and future research. One of the main objectives is to offer a protocol of how the subject project could be improved in the future.
1.9 Research Limitations

This research investigates factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. There are a few limitations associated with this research, particularly the rather small sample size of participants.

The case study used in this research to investigate organisational strategic decision-making is limited to the Australian public sector infrastructure project and program context. Although the case study is very specific i.e., a temporary crisis program of projects, and only limitedly generalizable to other contexts, the approach and methodology can be extended to other industry sectors, such as the pharmaceutical or the financial sector; developing countries, such as Africa and Latin America; other temporary organising, such as the interplay of structure and agency over a period of time in defence, national security taskforces or in the formation of temporary alliances; and, to the fast paced and unpredictability of technological advances which tend to have low spatial organisational proximity. In addition, the scope conditions are constrained to megaprojects; federal and state government agencies, and for-profit organisations.

Although document analysis provides a valuable source of data from other agencies participating in the case study, the data could have been more information-rich if other agencies and agency actors participated in the research. However, this was predominately constrained by the research timeframe and allocation of funding to conduct the research.

Considering the case study was retrospective, this constrained the data gathering process particularly from a ‘situated’ sensemaking perspective. I relied on participants’ memory to recall real-world accounts. Having the ability to capture real-world data in context i.e., direct participant observations, would have potentially provided more information-rich data. It would have enabled me to describe human interaction and behaviour through firsthand accounts – allowing me to ‘live’ and ‘breathe’ everyday realities of the social worlds, as described by Yin (2014). However, a major drawback with such a process is gaining access to participants in real-world events, particularly within a government context. Additionally, covert participant observations are rare because of ethical considerations including deception surrounding its nature. Having pointed out these limitations, I must stress that I was able to gain access to significant documentary evidence as indicated in section 4.8 Research Instruments and referred to throughout the thesis Chapters Five to Eight. In particular, Chapter Seven addresses research validity constraints, limitations and strategies deployed in this research.

Another constraint is the tedious time it takes to obtain case study documents, particularly under the freedom of information legislation. As the case study was a mega public sector infrastructure program of
projects, some documents took over one year to obtain, which was only possible with the intervention of the Australian Information Commissioner. Such a process is significantly constraining on the research process.
CHAPTER TWO: LITERATURE REVIEW (PART I)

2.1 Introduction

Chapter Two Prologue

What the previous chapter did:
The research context was situated in understanding and explaining factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. This includes the exploration of governance mechanisms to optimise its success considering the high rate of project policy failures.

What this chapter does:
The first chapter of the literature review provides a critical review and analysis of the relevant literature related to the research topic, being, project strategy and the front-end, and decision-making theory.

What the remaining chapters do:
- Chapter Three will expand the literature review and critically review and analyse external and internal factors that influence organisational strategic decision-making, governance and policy implementation. This will lead to a conceptual framework and proposition.
- Chapter Four will discuss the research context, paradigm, methodology, and the case study approach in conducting the research.
- Chapter Five will discuss and describe the case study and the organisations selected as case studies.
- Chapter Six will provide the data analysis and interpretation of the case study.
- Chapter Seven will provide the validation of the case study research through a few mechanisms.
- Chapter Eight will provide evidence and reflections of the research process.
- Chapter Nine will provide the findings, insights and recommendation for practice and future research.

Men are in general ungrateful, fickle, false, cowardly, covetous, but as long as you succeed, they are yours entirely. (Graham 1996, p. 67, quoting Machiavelli)

This aim of this research is to investigate factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. Particularly, with a focus on
the muddled and strategic context i.e., complex, dynamic, plural and emergent properties of organisational strategic decision-making, intertwined in often unforeseen ways between different agency and actor (inter)actions. I believed that a better understanding of this phenomenon would enable policy-makers and project managers to implement an effective governance mechanism at the front-end of project policies to eradicate potential ‘hijacking’ of the project shaping process. To carry out this study, it was necessary to complete a critical review of the salient literature, which was ongoing throughout the data collection and analysis process, and summary phases of the study.

This critical review explores the complex, dynamic, intricate, plural and emergent properties of organisational strategic decision-making for project policy implementation. Particularly, it focuses on two major areas of literature: (1) project strategy and the front-end; and (2) decision-making theory. A review of the literature on project strategy and the front-end provides an understanding of the how project strategy is implemented for, and its impact on, project policies within an organisational context. This includes a discussion on the concepts of strategic intent, collective leadership, leadership within complex contexts, institutionalism and institutional work, and the concept of project strategy. Decision-making theory is then reviewed to provide a context for understanding how organisational actors make strategic decisions. This includes a discussion on the concepts of decision-making, strategic decision-making, organisational and political strategic decision-making, and strategic decision-making in professional and public organisations.

2.2 Project Strategy and the Front-End

The *Oxford Dictionaries* (2013) defines strategy as ‘a plan of action designed to achieve a long-term or overall aim.’ *Britannica* (2013) defines it as the ‘art of employing plans toward a goal.’ This resonates with the definition of policy, which is seen as a course of action or a web of decisions which take place over a long period of time to achieve goals (Hill 2009). This strongly suggests that policies are complex, dynamic and change over time. Cummings and Wilson (2003) describe strategy as a movement toward the future, which enables organisational actors to *think* and *act strategically*. Thinking strategically involves the use of images and strategic frameworks to perceive or visualise a preferred end state, whereas acting strategically involves getting people behind a decision so as to take a course of action to get to that state (Cummings and Wilson 2003). Although originally derived from and linked to the art of war (see Wensley 2003), it was first introduced into management by Chandler (1962) to mean the achievement of goals or objectives as well as the courses of action: a formal planning process. It is predominantly seen as a linear, bureaucratic and rational process, setting goals and objectives as well as courses of action (Faulkner and Campbell 2006, Kay *et al.* 2006, Steensen 2014, Uhl-Bien *et al.* 2007). This is analogous to nineteenth-century Newtonian thinking in which the universe is said to operate in a precise and linear manner – as with contemporary policy problems, implementation and decision-making (Givel 2015). This linear, formal or
rational strategic process has significant cognitive limitations, for example, too much reliance on executives for making and implementing strategic decisions (Chakravarthy and White 2002), which results in bureaucratisation of the planning and governing process (Gluck et al. 1982, Mintzberg 1994, Uhl-Bien et al. 2007). Although conventionally, strategy is seen ‘as a purposeful, future-oriented activity represented by plans and objectives’ (Legge 2003), it also emphasises leadership, vision and mission (Kay et al. 2006). Such a view is important for strategy implementation and change (Kantabutra and Avery 2010), as leaders who use vision and mission statements are able to pursue new directions, mobilise people to action and maintain high levels of sustainable success (Berson et al. 2001).

The perceived end state needs also to be appreciated within its situational context. Snowden has developed the Cynefin framework which is a useful tool for making sense of situations that the project faces as well as being relevant in the way the domains of order and unorder are perceived (Kurtz and Snowden 2003). Ordered domains comprise simple/known and complicated situations that are the domain for most projects where traditional project management and strategy development approaches apply. Unordered domain situations comprise complex or chaotic contents where ‘best’ or ‘better’ practice is no longer useful requiring a different approach to both strategy development as well as strategy implementation and leadership style (Snowden and Boone 2007). The influence of complexity is discussed later as it has a profound impact on how decisions are made and best carried out. Thus, this requires a deeper understanding of strategy development and its interpretation into action, which is the essence of strategic intent.

### 2.2.1 Strategic Intent

At the core of strategy and its purposeful action orientated towards the future is strategic intent (Wensley 2003). *The Dictionary of Business and Management* (2009) defines strategic intent as a clearly understood statement, such as a vision or mission statement, for what an organisation will become. It is, however, more than a vision or mission statement as it also outlines a clear strategy for achieving that vision, a means towards the end including capturing the essence of winning, embedding stability, group identity, setting targets that deserve personal effort and commitment, making the right decisions within the right structure and right culture, sensemaking and sensegiving, and adopting the necessary leadership style (Delisle 2007, Gioia and Chittipeddi 1991, Hamel and Prahalad 1989, 2005, Haslam and Reicher 2007, Levin 2000, Smith 1994, Thoms and Kerwin 2007, Watkins 2009, Wensley 2003). The concept of strategic intent was introduced by Hamel and Prahalad (1989) to envision a desired leadership position. It goes beyond the traditional, and rather still dominate, concept of strategy such as: ‘strategic fit,’ ‘generic strategies,’ and ‘strategy hierarchies’ (Hamel and Prahalad 1989, Kay et al. 2006, Wensley 2003) and being seen as an rationalist paradigm (Chakravarthy and White 2002, Kay et al. 2006). It enables collective and co-ordinated action and agency (Goldman 2012, Mantere 2013, Mantere and Sillince 2007, O'Shannassy 2016, Wensley 2003), and formulating a ‘criterion of we-intent’ (Mantere and Sillince 2007, p. 419) through powerful
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discourse (Mantere 2013). This is further professed by Campbell and Yeung (1991), Chakravarthy and White (2002), and Collins and Porras (2005) who argue that a mission is about organisational culture, a way of behaving, and strategy: the present state. This includes its values, beliefs and morals that ‘glue’ an organisational culture as a collective unit: constituting a high performance team (Katzenbach and Smith 1994). Vision is about the concept of leadership: the future state of an organisation. It is a descriptive story of the desired future in action (Levin 2000). They further argue that although strategic intent envisions a desired leadership position, which draws from both vision and mission statements, it does along with vision, have some limitations. Vision and strategic intent begin to lose their power once it is achieved and it can leave organisations powerless and directionless (Campbell and Yeung 1991), and in an uncertain world their pre-emption might become illusory (Wensley 2003). Cyert and March (1963) and Simon (1964) argue that it is difficult for organisations to have strategic intent. The rationale behind their argument is that organisations consist of individuals who form temporary powers of coalition, and therefore, only individuals can have strategic intent. Although they have some limitations, which are minor in that, majority of scholars profoundly profess that strategic intent along with vision and mission statements are powerful strategic tools and a necessity for strategy implementation (Chakravarthy and White 2002, Kay et al. 2006, Macmillian and Tampoe 2000, Pearce II and Robinson 2011, Verma 2009, Wensley 2003), especially in a project environment with the achievement of successful outcomes (Christenson and Walker 2008, Walker et al. 2008b). This should be the starting point for a project policy: a compelling vision that ‘captures the core purpose, preferred future state and essence of the project objectives, its raison d’etre’ (Walker and Rowlinson 2008, p. 55). Here project selection and outcomes must align with the strategic intent, including group identity, to achieve project success, especially with mega infrastructure projects where decisions have political and social consequences (Norrie and Walker 2004, Walker et al. 2008a).

Furthermore, the literature implies that capturing the ‘power’ of key and influential stakeholders is absolutely essential for an inspirational and sustainable strategic intent (Macmillian and Tampoe 2000). If ‘powerful’ stakeholder views and not taken into account in developing strategic intent, it can derail or divert an organisation from its strategic direction and impact its survival (Macmillian and Tampoe 2000). As Denis et al. (2012, p. 254) argue ‘actors are present in leadership – creating it, maintaining it, and disrupting it – but they are not containers of leadership.’ Leadership is therefore seen as a group characteristic (Denis et al. 2012, Katzenbach and Smith 1994), an emergent approach, culturally embedded (i.e., values, behaviours, ideologies) which is institutionalised (Crevani et al. 2007, Hosking 2011, Uhl-Bien 2006, Uhl-Bien and Marion 2011). This strongly suggests that leadership is a relational effect imbedded within social (inter)actions. This also resonates with Smith and Winter (2010, p. 53) saying that ‘projects are formed in the social world.’ Furthermore, it is ‘at the same time an outcome of actors’ interactions and a contextual element that shapes the interactions that follow’ (Denis et al. 2012, p. 261). Consequently, this relies on examining the context of strategic intent including leadership and actor relations or interactions.
2.2.2 Collective Leadership

The literature on strategic intent implies the essence of collectivism and leadership, which is well worth exploring. However, prior to exploring these concepts it is important to remember a quote from Machiavelli:

> There is nothing more difficult to carry out, nor more doubtful of success, nor more dangerous to handle, than to initiate a new order of things. For the reformer has enemies in all those who profit by the old order, and only lukewarm defenders who would profit by the new order. (Bass and Bass 2008, p. 161)

What Machiavelli implies is that strategic change requires strong collective leadership and understanding the relational behaviour of actors to achieve desired outcomes – the means-end relationship (Drescher et al. 2014, Macmillian and Tampoe 2000), which is critical in forming strategic intent (Macmillian and Tampoe 2000, Pearce II and Robinson 2011). Collective leadership is seen as a ‘shared, relational, strategic, and complex social dynamic’ (Avolio et al. 2009, p. 423), requiring the identification of the most influential stakeholders or at least the most powerful stakeholders values and expectations (Eden and Ackermann 2004, Macmillian and Tampoe 2000, Uhl-Bien 2006) to form a shared sense of identity (Haslam and Reicher 2007). This is especially relevant to the front-end of project policy implementation, as according to Bass and Bass (2008, p. 112) to ‘emerge as a leader, one needs to participate early.’ This implies that timing is an essential criterion for the emergence of collective leadership. Over the past decade there has been a shift in the leadership paradigm with a focus on leadership as an emergent, fluid, relational, and collectively enacted phenomenon constructed in interactions (Carter et al. 2015, Contractor et al. 2012, Denis et al. 2012), which can be either formal or informal (Carter et al. 2015, Friedrich et al. 2009). Friedrich et al. (2009) conducted an extensive literature review with 55 propositions and proposed an integrated framework to understand the collective leadership process (see figure 2-1). They concluded that collective leadership can have significant benefits for team and organisational processes. Although the propositions and framework do have limitations, for example, lacking in empirical evidence and understanding of social networks, it does profess that collective leadership is an emergent process and the importance of structuring (i.e., sensemaking), mission, communication (i.e., feedback loops), team performance parameters (i.e., information sharing), team affective climate, team network, team exchange (i.e., sensegiving), and leader network to the collective leadership phenomenon.

From a social network perspective, Carter et al. (2015) provide a number of relational conceptions of leadership to understand leadership emergence and effectiveness. This study also includes informal leadership constructs of coevolution and communication. Although the study also has limitations, for example, lacking in empirical evidence, it does significantly advance organisational leadership towards
Informal influence, which is relevant today, especially given the increasing prevalence of flatter and team-based organisational structures within a rapidly changing world. This is also reinforced by Gittell (2012, p. 402) who states that ‘relational coordination is a mutually reinforcing process (i.e., shared goals, shared knowledge, and mutual respect) of interaction between communication and relationships carried out for the purpose of task integration, which is the basis for co-ordinated collection action.’ However, their review along with Lichtenstein et al. (2006), Uhl-Bien (2006) also argues for a paradigm shift in leadership, from an emphasis which sees leadership as static with formal and individualistic actions of behaviour (usually seen as a two-way influence process), toward a leadership networks paradigm that emphasises ‘the complex and patterned relational processes that interact with embedding social context to jointly constitute leadership emergence and effectiveness’ (Carter et al. 2015, p. 613). This is further professed by Uhl-Bien (2006, p. 661) who argues that the relational perspective of leadership has multiple realities that:

Do not adopt traditional organisational and management of ‘structures’ and ‘entities’; instead they view organisations as elaborate relational networks of changing persons, moving forward together through space and time, in a complex interplay of effects between individual organisational members and the system into which they enter. In this way, organisations change as a result of the ‘coordination’ of people’s language and actions in relation to each other at all levels and to the ever-
changing larger socioeconomic environment. Moreover, power is not a commodity, concentrated within certain individuals, but is distributed throughout the social field. [emphasis in original]

Applied to leadership, a relational perspective focuses on the collective dynamic, for example, the combinations of interacting relations and contexts (Uhl-Bien 2006), with multiple realities of the self and others co-evolving (Hosking 2007, Mitleton-Kelly 2015), which are inherently communicative (a relational dialogue or multilogue) in forming a shared sense of reality (Haslam and Reicher 2007). Although there is no clearly adopted definition of relational leadership, Uhl-Bien (2006, p. 268) provides a general definition which she defines as a ‘social influence process through which emergent coordination (i.e., evolving social order) and change (i.e., new values, attitudes, approaches, behaviours, ideologies, etc.) are constructed and produced.’ Here the whole is greater than the sum of its parts situated in the behaviour of social interactions (Mitleton-Kelly 2015, Webb 2015). Uhl-Bien and Marion (2011), Uhl-Bien et al. (2007) add to this by emphasising that leadership is a complex interactive dynamic – ‘living systems’ – through which adaptive outcomes (e.g., learning, innovation, flexibility and adaptability) emerge. This collective leadership phenomenon for adapting to existing and emergent environments is also stressed by Chen and Lee (2008), Dimovski et al. (2012) with the thinking and practice of Sun Tzu, a Chinese general and military strategist in the time of Confucius. Here a leader must follow and adapt to the emergent situation, like when ‘water changes its course in accordance with the contours of the terrain so do the commanders change their tactics in accordance to the situation’ (Chen and Lee 2008, p. 164).

From these perspectives, leadership lies in the ‘interconnected actions of individuals acting out of personal values or vision and engaging with one another through dialogue’ (Uhl-Bien and Marion 2011, p. 469) in the emergent situation. This requires consideration of the mechanisms (e.g., formal and informal) and contexts (e.g., structure) by which change occurs. These definitions view leadership as an organising phenomenon constituted within complex networks where organisational actors interact to co-evolve a jointly constructed reality. However, and moving on from this framework of leadership, some ‘bigger’ questions are needed, such as: How can we keep people moving and working together to achieve team or organisational congruence and goals? How can we form strong relational bonds that contribute to the generation and emergence of social order? In answering this, Murrell (1997) suggests, which is also professed by Uhl-Bien (2006), laying out a structure which becomes a product of leadership relations that constitutes the social structure (see also Weick 2009). This structure requires a context that generates richly networked interactions (Uhl-Bien and Marion 2011), which according to Lawrence (2008), Lawrence and Suddaby (2006) can be seen as ‘institutional work,’ the actions of creating, maintaining and disrupting institutional relations (i.e., the ‘emergent’ Uhl-Bien et al. (2007) to form a relatively stable state e.g., semistructures or adaptive organisations on the edge of chaos (Uhl-Bien and Marion 2011) relational interactions). Such systems appear to be best able to co-ordinate complex, flexible behaviour and respond
to changes in their environments (Kauffman 1993, Mitleton-Kelly 2015). This will be further advanced in the section 2.2.4 on Institutionalism and Institutional Work. It should also be noted that the concept of governance (section 3.4) and the concept of power, which are essential for strategic intent and understanding the dynamic and co-evolving nature of collective leadership, will be discussed in section 3.3. However, prior to discussing these concepts, it is well-worth exploring the concept of leadership within complex contexts, which is considered the norm in today’s and (co-)evolving nature of organisations (Ashkenas et al. 2013).

2.2.3 Leadership within Complex Contexts

Leadership within complex contexts focuses on the ‘patterns of behaviour, or complexity mechanisms, that define and emerge from interactive dynamics’ (Marion 2013, p. 185). Such a view of leadership is particularly relevant to projects which are seen as complex social entities (Ashkenas et al. 2013, Cicmil et al. 2006). Although there is no clear nor universally accepted definition of project complexity, Bakhshi et al. (2016, p. 1203) define project complexity as: ‘an intricate arrangement of the varied interrelated parts in which the elements can change and evolve constantly with an effect on the project objectives.’ They base their definition on the most reputed definitions of project complexity in the literature over the last 25 years. The authors also provide three of the most dominate characteristics of complex projects:

- The PMI perspective: focuses on structural complexity, uncertainty and socio-political elements. Other key elements include multiple stakeholders and project ambiguity (Project Management Institute 2013).
- The System of Systems (SoS) perspective: focuses on the integration of large scale systems that are heterogeneous and operate independently in a networked system towards a common goal. Other common characteristics are connectivity, diversity, and emergent behaviour. Such a framework is the Cynefin model (Snowden and Boone 2007) which recognises casual differences between system types. This includes simple, complicated, complex, and chaotic which call for different managerial responses.
- The complexity theories perspective: views projects through the lenses of various theories. This includes, for example, complexity theory, organisational theory, network theory, nonlinearity and chaos theory (see Curlee and Gordon (2011) for a deeper understanding of complexity theory and project management).

Although each perspective has many characteristics to consider in the context of project management, Bakhshi et al. (2016) propose seven dominant elements integrating the three perspectives: context, autonomy, belonging, connectivity, diversity, emergence, and size. Although project complexity has different meanings for different people and comes in different degrees, such as human behaviour and
‘systemicity’ of a project (Cooke-Davies 2011a), if an organisation thinks its work is complex then how it anticipates, comprehends and navigates complexity determines its success and failures (Project Management Institute 2013). This requires organisations and individual practitioners to positively respond to project complexity (Cooke-Davies 2011a). Such mechanisms include developing transformational leadership traits, collective creativity and knowledge diffusion, and processes that are adapted and adaptive in a project environment.

From another perspective, Remington and Pollack (2011) recommend the application of tools for complex projects. This involves the classification of complexity as either structural complexity, technical complexity, directional complexity, or temporal complexity. Structural complexity is based on the structure of information pathways, such as complicated organisational and approval pathways. Technical complexity derives from technical or design challenges. Directional complexity is when goals or goal-paths are unclear or unshared, which is especially prevalent at the front-end of projects. Temporal complexity is based on the sensitivity of a project due to volatile and unpredictable changes over time, which tends to increase with project duration. Remington and Pollack (2011) further state that such a tool that identifies the nature of complexity can also enable project managers and stakeholders to apply the best approach to address the complexity. Tools for managing complexity from a whole of project perspective include:

- **Mapping the complexity**: this involves identifying through collective dialogue when a project is more than just complicated. Based on this knowledge, project stakeholders can make more rational decisions including the application of the most appropriate tools and approaches to manage complexity.
- **System anatomy**: this involves integrating project implementation through a one-page ‘anatomy’ diagram in a project environment with diverse cultures that are geographically distributed with often isolated teams with different work practices.
- **Time-linked semi-structures**: this approach ‘supports maintenance of a dynamic balance between a more formal structure at one extreme and the more chaotic environment needed to optimise creativity’ (2011, p. 35). This is especially applicable to projects that hover near ‘the edge of chaos,’ where creativity and learning is the greatest.

Tools for managing specific aspects of complexity include:

- **Earned value**: this is applicable to projects that exhibit high structural complexity such as mega infrastructure or defence procurement projects. Alliances or partnerships are seen as the most effective procurement options, which also depends on other factors such as trust, transparency and communication to be effective.
• Problem structuring and soft systems thinking tools: seen as directional complexity, this is applicable when there is unclear or unshared goals or goal paths in a project environment. This is especially contagious at the front-end of projects, which can result in a loss of trust and cooperation. Such tools can also work in combination at different times and in different dimensions of complexity. The authors further state that such tools are practically useless without the appropriate level of capability. This includes a governance team to identify the nature of complexity, the necessary tools and approaches, skills and competences, and ensuring the right people are engaged to deliver the project. Similarly, Kermanshachi et al. (2016) empirical study into identifying project complexity and management strategies identified the establishment of a governance team as the best complexity management strategy to optimise the overall success of a project. What the research on project complexity implies is that it is human driven i.e., the right individuals with the right skills and competencies that ‘gel’ together as a team to deliver a project. Additionally, capturing the right people with the right behaviour particularly at the front-end of projects is absolutely essential for its success. This is profoundly professed by Cooke-Davies (2011b), Edkins et al. (2013), Morris (2011), Morris and Edkins (2014), and Samset and Volden (2016) who see human behaviour as a significant source of complexity in projects. Perhaps this can explain the use of agency in project environments, where agent behaviour is controlled through contracts and incentives which can lead to moral hazard risks (Joslin and Müller 2016), rather than understanding project teams and the strength of their relations. As stressed previously, this brings a question to mind: Considering project complexity is human driven, how can individuals and groups work together to create and maintain robust relations? This requires an understanding of institutionalism and institution work.

2.2.4 Institutionalism and Institutional Work

There are many diverse meanings and usage of the concept institution and institutional analysis (Hill 2009, Scott 2008, Wooten and Hoffman 2008). From seeing it constituted within the theories of economics, political science, and sociology (Scott 2008, Washington et al. 2008) to seeing it infused within the themes of ‘institutional strategy’ (Lawrence 1999), ‘institutional entrepreneurship’ (Suddaby and Greenwood 2005), ‘sensemaking’ (Ashforth et al. 2011, Fuglsang and Jagd 2015, Weick et al. 2005, 2010), and ‘institutional work’ (Lawrence et al. 2009) to describe the behaviour of individual and organisational actors attempting to change the institutional environment. Although diverse in meanings and adaptations, common themes emerging amongst the literature suggests that an institute is ‘a natural product of social needs and pressures – a responsive, adaptive organism’ (Washington et al. 2008, p. 728). It is ‘inhabited by people comprising of rules, norms, and meaning in interactions which is resistant to change’ (Scott 2008, p. 48). Scott (2008) discusses this within the three pillars of institutions being regulative (i.e., rules, laws, government policies), normative (i.e., values, norms, morals) and cultural-cognitive (i.e., shared understanding, taken-for-grantedness). He further states that the mechanisms and basis of order for these
three pillars are: coercive and regulative rules for the regulative pillar, normative and binding expectations for the normative pillar, and mimetic and constitutive schema for the cultural-cognitive pillar. This suggests that the rules, norms and meanings of an institute can be deeply embedded within the relational interactions of actors; rather constitutive in the way decisions are made. The value in the normative and cognitive frames is demonstrated by Surel (2000, p. 500) who states that:

One of the principal ‘functions’ of a cognitive and normative frame shared by a certain number of actors is effectively to develop a ‘collective consciousness’ in them; in other words, a subjective sense of belonging, producing a specific identity. Cognitive and normative frames allow actors to make sense of their worlds, and to locate themselves and develop in a given community, by defining the field for exchange, by allowing meaning to be conferred on social dynamics, and by determining the possibilities for action. They thereby contribute to the construction of individuals or groups as social actors in a particular field.

Organisations are seen as ‘a rational instrument engineered to do a job’ (Washington et al. 2008, p. 728). Although organisations are not institutions, they can carry or generate institutions (Kadefors 1995), also seen as institutional logics i.e., the way a particular social world works (Thornton and Ocasio 2008). Such institutions are infused with identity and identification (Ashforth et al. 2008), where a collective identity can emerge (Ashforth et al. 2011). This requires an intrasubjective understanding (‘I think’) which facilitates the emergence of intersubjective understanding (‘we think’) through interactions, which over time transcends to generic understanding (‘it is’) to form a collective sense of or institutionalised reality. However, an ‘adaptive organism’ needs legitimacy within an institutional environment, or its framework, to survive and thrive. According to Scott (2008, p. 59) legitimacy is ‘an assumption that the actions of an entity are desirable, proper, or appropriate within a socially constructed system, or institutional framework, of norms, values, beliefs, and definitions.’ For example, an infrastructure unit or division of a government agency may have differing views of norms, rules and values (its identity) compared to other infrastructure units or divisions of government agencies (their identity) – all seen as legitimate in their own ‘unique’ ways, which can transcend from an individual to a divisional level, and then to an organisational level and then back again to form an institutional reality (Ashforth et al. 2011). The same principle can be applied on construction projects with architects, engineers, surveyors, and builders having different professional norms and values (Bresnen and Marshall 2012). However, individual and organisational actions can also be seen as illegitimate, which usually reflects non-conformity to social constructed systems of rules, norms, values and beliefs (Deephouse and Suchman 2008). For example, legitimacy or legitimate actions can involve the forming of strong strategic alliances (Cohen and Dean 2005), or illegitimate institutionalisation or action such as organised crime or political corruption (Deephouse and Suchman 2008, Jepperson 1991). This can also be seen as an anomie, which is a ‘cultural malintegration where normative rules and procedures governing the attainment of culturally approved goals have lost their savor and force … [or] …
a lack of coordination between ‘means-and-goals phases of social structure’ (Johnson and Duberley 2011, p. 570). A primary source of anomie is ‘the institutionalisation of self-interest in the guise of utilitarianism (Johnson and Duberley 2011, p. 572), which is seen as Machiavellianism (O'Connor 1999). This type of institutional work can also be seen as ‘boundary work,’ or politicisation, relocation and institutionalisation of boundaries (Lamont and Molnar 2002). Here organisational actors tend to disrupt institutional relations through manipulating social (i.e., economic, physical and political) and symbolic (i.e., moral, socioeconomic, cultural) boundaries, which is a powerful medium through which people acquire status and monopolise resources (Lamont and Molnar 2002). Such disruption to the relational actor space tends to be seen with large-scale changes, such as revolutionary change, war and imminent economic failure (Lawrence and Suddaby 2006). For example, currently [at the time of writing] would be the Public Transport of Victoria (PTV), a relatively new statutory authority, responsible for state government public transport infrastructure projects, where certain actors are being investigated for serious corruption around at least AUD $25 million for the procurement of projects (IBAC 2015b). However, PTV has undertaken a number of procurement reforms as recommended by the Independent Broad-Based Anti-Corruption Commission (IBAC) predominately focusing on formal and hierarchical control mechanisms i.e., strict policing and auditing, ICT systems, CEO approval, and minimal focus on informal control mechanisms such as change in values, norms, and cultural beliefs. These reforms are seen as a traditional form of bureaucratic paradigms and leadership which are therefore questionable to the contemporary work environment where the focus is on understanding leadership as a complex interactive dynamic from which adaptive outcomes emerge e.g., learning, innovation and adaptability (Lichtenstein et al. 2006, Uhl-Bien et al. 2007). This begs the question: Considering the dominance of formal leadership and governance mechanisms, will this public-sector reform lead to further dynamics of institutional corruption? The IBAC is also investigating alleged serious corruption by senior government executives which had significant delegative power (responsible for approximately AUD $4 billion of AUD $11 billion of annual budgets) of the Department of Education and Training in Victoria for the procurement of projects (IBAC 2015a). These actions can be seen as illegitimate but institutionalised (i.e., illegitimate institutionalisation), culturally, by certain agency actors to achieve illegitimate means to an end i.e., self-serving ends. Despite its usages, according to Deephouse and Suchman (2008, p. 60):

Legitimacy is fundamentally non-rival: it is rarely a zero-sum game within any given population; indeed positive feedback loops and a ‘logic of confidence’ tend to produce win-win ceremonies of mutual affirmation among legitimate actors. Further, precisely because legitimacy is non-rival and homogenizing, it paints with a broad brush and tends to attach to all entities that share a given form. Although firms, structures and even individuals can achieve legitimacy on their own, the more common pattern is for each instance to be legitimated by conformity with a collective legitimated template.
This requires an understanding of the relational spaces where collective understandings of actors emerge – embedded within the structuring or restructuring process of organisational dynamics (Scott 2008, Wooten and Hoffman 2008), from the micro-agent interaction to macro-structures (Mitleton-Kelly 2015), and thus ‘institutional work’ (Lawrence and Suddaby 2006, Lawrence et al. 2009). Institutional work is concerned with ‘how institutions maintain their status and legitimacy in the face of their own institutionalised environment’ (Washington et al. 2008, p. 725), which requires institutional leadership and an understanding of the purposive action of individual and organisational actors who create, maintain and disrupt institutional relations (Jepperson 1991, Lawrence et al. 2009, Washington et al. 2008). This suggests that actors can purposively behave either to maintain or change institutions, which again emphasises the importance of understanding the relational spaces of these actors and their (inter)actions.

Washington et al. (2008) argue that to maintain legitimacy and institutional survival, institutional leaders need to do three things: manage internal consistency of the organisation, develop external support mechanisms to maintain survival and obtain legitimacy of their organisation, and engage in actions to overcome external enemies. Internal consistency involves maintaining commitment to the organisational vision, mission and values through powerful narratives. The development of external support mechanisms, to gain external legitimacy for their institution, requires maintaining a balance of stability and flexibility through normative, regulative and culturally-cognitively mechanisms. Institutional leaders also have to defend against external enemies as they are under constant threat from competing institutions who have different sources of interest and identities. Washington et al. (2008, p. 732) also argues that the distinction between institutional leaders and organisational leaders is the use of a vision statement: ‘for an institutional leader, the vision is a chance to embed values and mission of the organisation into the everyday reality. For the organisational leader, the vision is a chance to look forward to future challenges and developments.’ He or she is seen as a ‘statesman’ (i.e., executive really making a transition to statesmanship and not a mirage), entrepreneurs of identity (Haslam and Reicher 2007), a person of integrity, intertwined within organisational politics who is able to make critical and character-defining decisions (Kraatz 2009) needed to initiate and sustain an identity-embedding structure (Haslam and Reicher 2007).

What the literature on institutional leadership implies is that it requires significant ‘effort’ – mental or physical exertion to achieve a result. This is also strongly professed by Lawrence et al. (2009) who argue that institutional work can be understood as the mental or physical work needed to achieve an effect on an institution or institutions. Additionally, institutional leaders can be seen as key agents of institutional work (Haslam and Reicher 2007, Kraatz 2009), and thus able to strategically shape the relational actor space. With institutional work, the focus is on understanding the interactions of actors and institutions – creating, maintaining and disrupting institutions (Lawrence et al. 2009). As opposed to organisational theories on rationalisation, institutional theory argues that broader social and cultural processes shape organisational
action (Battilana and D’Aunno 2009, Lounsbury and Ventresca 2003) with actor legitimacy playing a central role in this theory (DiMaggio and Powell 1983). Creating institutional work involves ‘advocacy, defining rule systems and vesting them with the ability to confer property rights, constructing normative networks of actors possessing defined identities in relation to the new rule systems, and developing support for those rule systems through advocacy, theorising, and educating’ (Zietsma and Pedersen 2009, p. 148). This also involves collaborative co-creation and competitive convergence mechanisms which has a strong emphasis on collective action (Zietsma and Pedersen 2009). Furthermore, Lawrence and Suddaby (2006, p. 228) state that the key to creating institutions is ‘the ability to establish rules and construct rewards and sanctions that enforce those rules.’ They profess that work that focuses on rule systems (i.e., vesting, defining and advocacy) is more associated with the construction of new institutions, while work that focuses on changing norms or belief systems including cultural, which is embedded in communities of practice, is more associated with practices that parallel or complement existing institutions. This type of work is also the most co-operative. With maintaining institutions, the focus is on adhering to rule systems (i.e., enabling, policing and deterring) and reproducing norms and beliefs (i.e., valorising/demonising, mythologising, embedding and routinising), some of which are rather too conflictual i.e., enforcing compliance – the social mechanisms. With disrupting institutions, the focus is on attacking or undermining the mechanisms that lead members to comply with institutions. This involves mechanisms such as disconnecting sanctions, disassociating moral foundations, undermining assumptions and beliefs. A common theme with disrupting institutions is the focus on relationships between an institution and the social controls (Lawrence 2008). Considering that most of the institutional work is language-centred, discourse analysis (i.e., narrative, rhetoric and dialogue) and semiotics are important mechanisms to consider when analysing institutional work (Lawrence 2008). Such narratives, or guiding principles, are also essential with decision-making in fast pace or high velocity environments (Oliver and Roos 2005).

Although creating, maintaining and disrupting institutions takes significant effort, how is an institution or institutional leader supposed to manage contradictions that are inherent in organisational fields? Hargrave and Van De Ven (2009, p. 127) suggest that institutional actors adopt a both/and approach which ‘acknowledges both poles of contradiction, frames these poles as complementary, and uses the contradiction as a source of innovation.’ This is particularly prevalent within the normative and cognitive frames for changes in public policies (Surel 2000). This is also especially valuable in pluralistic settings where multiple individual and organisational actors have legitimate rights to pursue their interests. As opposed to moderation, and either/or approaches which tries to satisfy a single criterion. For example, ensuring compliance through policing would be an either/or approach, which enables institutes or institutional actors to obtain relative stability in their interactions (Hargrave and Van De Ven 2009).
If institutes are, by definition, seen as ‘a responsive, adaptive organism’ (Washington et al. 2008, p. 728), rooted in taken-for-granted rules and norms which are resistant to change (Scott 2008), thus, suggesting ‘strength, endurance and stability’ (Smith and Graetz 2011, p. 74), then how can institutions change? This is succinctly phrased by Holm (1995, p. 398): ‘How can actors change institutions if their actions, intentions, and rationality are all conditioned by the very institution they wish to change?’ Is change instigated from exogenous or endogenous force? More succinctly, how can organisations survive through the successful implementation of megaproject policies? Which not only impacts millions of people and costs billions of dollars (or euros, pounds etc.), but more importantly, impacts the advancement and survival of nation states.

Many researchers have attempted to address this theoretical dilemma (see Smith and Graetz 2011), including project management (Bresnen and Marshall 2012). Most scholars still echo Lewin (1951) rational three stage model of change: unfreeze-change-refreeze (Purser and Petranker 2005). However, such a rational and linear (or managerial agency) process of change is unrealistic – not a ‘true’ representation of the change management process (Purser and Petranker 2005, Sonenshein 2010, Wilson 2009). Additionally, it tends to echo Machiavellianism (Smith and Graetz 2011, Wilson 2009). All in all, although change is a theoretically complex process (i.e., life-cycle, teleological, dialectical, evolutionary theories etc.), it is also temporal in nature which research has neglected to adequately conceptualise (Purser and Petranker 2005, Wilson 2009). This implies that a greater understanding is needed of the situated and continual nature of change – the emergent phenomenon. This is reinforced by Purser and Petranker (2005, p. 186) who state that ‘change is emergent, it is the realisation of a new pattern of organising in the absence of explicit a priori intentions.’ This is similarly echoed by Smith and Graetz (2011) with a duality perspective on change; where such a view of change identifies the tensions of change, as well as their power. This requires a new mindset, which can be achieved through the collaboration of five duality characteristics:

1. Simultaneity: Simultaneous presence of contradictory forces.
2. Relational: Bi- rather than uni-directional relationships between opposite poles.
3. Minimal threshold: Ensuring that enabling rather than constraining forces emerge.
4. Dynamism: Focus on the interactive nature of dualities relationships.
5. Improvisation: Mediating action which dynamically shapes decision-making.

Such characteristics ‘encourage building ‘both/and’ constructs that accommodate contradictory elements of management as simultaneously operating truths’ (Smith and Graetz 2011, p. 197). Although such a shift in mindset is critical to change management, how does such change, or the management of continuity and change, come to fruition? What the literature on institutional change, and organisational change in general (see Luecke 2003), implies is that it requires an agent of change i.e., change agent. Such an agent of change can be seen as an institutional entrepreneur (Marti and Mair 2009, Smith and Graetz 2011, Thornton and...
Ocasio 2008). An institutional entrepreneur capable of merging institutional logics to create a new institute (Thornton and Ocasio 2008, Tracey et al. 2011). Achieving such a state of constitutive institutional logics, including emergent structures, can be achieved through four communicative functions: coordinating, sensegiving, translating, and theorising (Ocasio et al. 2015), which is held on the convention that communication i.e., oral and written statements and speech acts (Cooren 2001), shapes institutional logics at increasing levels of abstraction. With the coordinating communicative function, the focus is on linking categories i.e., category conventions, with practices, which can either reinforce or change existing logics. Such a process that enables change in logics can also be seen as sensebreaking, which is defined as ‘the destruction or breaking down of meaning’ (Pratt 2000, p. 364). According to Maitlis and Christianson (2014, p. 69) sensebreaking ‘can motivate people to re-consider the sense that they have already made, to question their underlying assumptions, and to re-examine their course of action.’ The sensegiving communicative function focuses on establishing category conventions i.e., generic language which capture patterns and regularities, as social facts. With the translating function, the focus is on translating category conventions i.e., across contexts, into institutional narratives. While theorising focuses on abstract aspects of categories. Furthermore, the four communicative functions need to combine i.e., vocabulary dimensions, to change institutional logics. For example, coordinating an initial project meeting on delivery frameworks i.e., PPP or other joint ventures for a transport project, where a change in logic i.e., partnership based on greater embodiment of trust and cooperation between program partners – ‘sink-or-swim’ or esprit de corps mindset – Program Partners. Communicating the Program Partners category expresses generic meaning (cognitive sensegiving) that anchors it in the specific instance – thus legitimising it into practice. This leads individuals and organisations to form the presumption that the practice of Program Partners with its characteristics is a social fact – a representation of social reality. Once the Program Partners category is established in the specific instance, it can be used to communicate at a meta level, beyond the instance through translating and theorising. It can be translated across contexts, say transport projects across countries, through communicative events which gives Program Partners structure. Theorising can also reinforce the Program Partners category through abstract communicative events, such as journals and media to generalise beyond the specific instance. However, it can also generate larger meanings, with its level of abstraction and interconnectedness with other categories (Ocasio et al. 2015). For example, the Program Partners category, or dimension, is interconnected with more specific categories such as contracts, procedures, and agendas, which are the principles of institutional logics.

What the literature implies is that strategy development i.e., setting a vision, mission, objectives and courses of action is easy but implementation is difficult. This is also stressed by Kay et al. (2006). It is much more than a vision or mission statement, but embedded within the complex fabrication of human behaviour. As Legge (2003, p. 74) states that ‘people’ behaviour can be inconsistent as well as consistent, unpredictable as well as predictable, uncertain as well as certain.’ This is especially relevant from a political perspective,
which according to Lindblom (1959), later extensively developed by Cyert and March (1963), and stressed by Kay et al. (2006), political constraints tend to significantly hinder the successful application of a rationalist approach to strategy. This also suggests that the implementation of strategy cannot be prescribed but is rather masterminded or shaped by organisational or agency actors – strongly emphasising the concept of Machiavellianism and tribalism. Where different identities can emerge within the relational actor space (Ashforth et al. 2008) and thus influence organisational strategies (Ashforth and Mael 1996). It is institutionalised by agency actors to achieve a means to a desired end. However, this raises some interesting questions that requires further investigation, such as: What are these political constraints? What factors influence organisational strategic decisions on the implementation of project policies? How do organisational actors craft or shape organisational and project strategies? The understanding of the factors that influence organisational strategic decision-making on the implementation of project policies will be discussed in the next chapter. However, prior to delving into these concepts, it is essential to understand the concept of project strategy, which will be discussed next.

2.2.5 Concept of Project Strategy

The concept of project strategy is ambiguous in existing project literature (Artto et al. 2008a). Artto et al. (2008a, p. 8) conducted an extensive literature review and analysis on the concept of project strategy and concluded that project strategy is ‘a direction in a project that contributes to success of the project in its environment.’ In the definition, direction can be interpreted as goals, plans, means, methods, tools, or other controlling devices, success as achieving the project goals including the ability to survive in a competing and hostile environment, and environment as external factors that may influence project delivery (Artto et al. 2008a). This suggests that project strategy is not necessary an image of its parent organisational strategy but is dynamic. This is further professed by Aaltonen et al. (2015), Artto et al. (2008b) who suggest that the implementation of a project strategy depends on a project’s autonomy in its environment and the complexity of a project’s stakeholder environment. Most project strategies tend to align with and obey a parent’s organisational strategy, characterised by low complexity and low level decision-making autonomy. However, the reality is that most projects are characterised by a highly complex stakeholder environment with a low level of autonomy, such as with the implementation of project policies (Artto et al. 2008b). Although their study does contribute to existing knowledge on the concept of project strategy, further research is needed to verify their framework. Similarly, Anderson and Merna (2003) conducted a study on strategy formulation at the front-end of projects. Their study highlights limitation in the literature, particularly the understanding of effective strategies for developing and deploying projects – the plurality of project strategies.

In general, the literature provides a generic definition of the concept of project strategy characterised by a project’s parent organisation independence and number of project stakeholder organisations. Furthermore,
it is noted that scholars often assume project strategy as a linear or rational function that relates to a set of static objectives, plans, and mechanisms, and apparently has its own independent strategy from a parent’s organisation business strategy: like an obedient servant (Artto et al. 2008a). Nevertheless, the literature does not consider factors or processes for project strategy implementation – and understanding of the means to the desired end – particularly factors that may influence project strategy implementation and the decision-making process. Young et al. (2012, p. 889) also agree with the findings reported by Artto et al. (2008a) and argue that ‘there is little guidance about how strategy gets translated into projects.’ In this connection, they suggest that further empirical research is needed which focuses on the dynamic implementation of project strategies and how they change during a project lifecycle, especially in other business sectors and countries, and pluralistic organisations. Surprisingly, and rather disturbing, Young and Grant (2015) replicated and extended Young et al. (2012) study in the Australian state of New South Wales (NSW) to determine whether projects contributed to the realisation of business strategies. Young et al. (2012) study provided evidence that although the Victorian government project management and investment frameworks were seen to be comparable with and sometimes better than ‘best practices’ there were some deficiencies. For example, there was little evidence of how projects or programs should be governed, no acknowledgement of strategic intent, showed evidence of a static or rational relationship between project strategy development and implementation, and a lack of focus on the realisation of strategic goals. Another surprising find is that considering the pluralism of government agencies, there was significant duplication of project effort. In addition, most of the Victorian project management tools and frameworks are influenced by the UK Office of Government Commerce (OCG) methodologies for the management of successful projects and programs. However, their NSW study suggests that projects are twice as effective in contributing to strategic goals when there are stable strategic priorities and centralised project insight. This is similar to the UK Bates Review (for example see Miller and Hobbs 2005) findings that revealed from a project institutional perspective, that centralised oversight and the reduction in the number of institutional players led to significant increases in project success rates. They also concluded that with the right environment, projects do appear to make some contribution to strategy. This also includes managing the long, complex and critical front-end; embedding projects to institutional frameworks; creating and maintaining coalitions within network of relations; understanding high uncertainties and risks, for example, slowly materialising projects; understanding factors that shape project strategies, for example, leaders that give project legitimacy and protect it from challenges; strong project sponsors; and ensuring adequate scrutiny. Most of these points are also professed by Haji-Kazemi et al. (2013) with the identification of early warning signs in front-end stage of projects with the case study on the Norwegian High Speed Railway project. Section 2.2.3 on leadership and complexity also stresses the need to understand complexity from the Cynefin framework (Snowden and Boone 2007), in particular a need for a probe, sense, and respond response. This implies that decisions may be re-interpreted to suit the context and this may explain why decisions may morph from one expected way to deliver them than initially expected.
The disturbing part of the state government studies, which is also evidenced globally on mega infrastructure projects (for example see Flyvbjerg 2012, Flyvbjerg et al. 2003, Patanakul et al. 2012, Productivity Commission 2014, Williams 2005) is that fewer than half of strategies were found to be improving, thus contributing to financial losses in the billions and undeliverable outcomes. Evidently, Flyvbjerg (2014) found that nine out of ten mega projects have cost overruns with up to 50 percent in real terms. For example, the cost overrun for the Channel Tunnel was 80 percent in real terms, the Denver International Airport was 200 percent, for the Sydney Opera House it was 1,400 percent, ICT projects experience average overruns of 200 percent in real terms (Flyvbjerg 2014), and the Brazilian Itaipu Dam project was 240 percent in real terms which impaired the economy for three decades (Ansar et al. Forthcoming). Another example is the Croatian Motorway, where the Croatian government approved HRK kn11.23 billion (or AUD $2.21 billion), but after the start of implementation the cost increased to HRK kn14.69 billion (or AUD $2.89 billion) or 30 percent (Legac et al. 2014, Vlada Republike Hrvatske 2013). This is further evidenced by Andersen et al. (2016) who found that on average cost overruns on large investment projects was 84 percent, with extremes of up to 500 percent. This also, as aforementioned, significantly impacts organisational performances and stakeholder morale. This fundamentally begs the question: Why should financial resources funded by taxpayers or private institutions partner with government agencies, for example with PPPs, when project failure i.e. tremendous loss in productivity and profitability, is so prevalent? It also begs the question raised by the work of Flyvbjerg cited above about how reasonable initial expectations and estimates of cost/benefits are.

The research limitations identified by the previous scholars clearly indicate that the implementation of project strategies tends to be aligned with organisational strategies in a rather linear or rational approach. This is especially evident with policy implementation (see Barrett 2006, Birkland 2005, Jenkins-Smith et al. 2014). It also timely reminds us that there is still a lack of studies in investigating how project strategy is implemented by organisations, and understanding of the complex and dynamic (inter)actions that project strategies have with the internal and external project environment.

In this aspect, some project management researchers described project strategy as an image of its parent organisation’s business strategy (Anderson and Merna 2003, Artto et al. 2008b, Kezner 2003, Loch and Kavadias 2012, Milosevic and Srivannaboon 2006, Morris and Jamieson 2005, Shenhar et al. 2005, Shrivastava and Grant 1985, Walker et al. 2008b). Considering this weakness that is a contagion in the project management literature, Walker and Rowlinson (2008) summarise three strategic management approaches within a project management perspective, being prescriptive strategic schools, descriptive strategic schools, and configuration strategic schools that enriches the gap between a given strategic approach and a given project type. The prescriptive strategic schools approach focuses on how strategy
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should take place within a relatively stable, mechanical and formal (i.e. follow the dots) environment, which is rather contrary to the ‘real’ project environment of complexity, uncertainty and contagious with risks. The descriptive strategic schools approach focuses on how strategy does take place including the use of a vision, innovation, strategic intent, rapid change with little time to perfect strategies, laced with uncertainty, seeing strategy as an emergent and collective process, institutionalised within an organisation, embodied within power and politics, and tends to suffer from delusions, biases in decision-making, and evidence-based policy making which is argumentative and shaped towards desired ends. Although still seen as a rational process it is useful in trying to understand organisational interactions and how actors see strategy. The configuration strategic school sees strategy as a process of configuration and transformation where organisations evolve and respond to challenges even though they may be in a relatively stable state of configuration. In their summary, Walker et al. (2008b, p. 159) conclude that ‘the key to strategic management, therefore, is to sustain stability most of the time when that maintains competitive advantage and to be able to shift gear to being transformational to cope with disruptive change to position the organisation to be ready for the next fairly stable period.’ This shifting gear resonates with the recommendation of Snowden and Boone (2007) relating to a probe-sense-respond approach to exercising agency in decision implementation and interpreting strategic intent.

Advancing Artto et al. (2008b) critical analysis on prior project management literature addressing different context-specific strategies of single projects, it was revealed that projects can be either autonomous of a parent organisation i.e., pursue their own strategies, or a subordinate of a parent organisation i.e., aligning and obeying the strategy of a parent organisation. Based on their analysis, they concluded that the concept of project strategy should not only be limited to serving a single parent organisation only, but instead should acknowledge a project’s autonomy as well as its unique position as part of its complex context (Artto et al. 2008a). Similarly, Milosevic and Srivannaboon (2006) conducted a study on strategic management literature on alignment of project management and business strategy that revealed project strategies are derived from, and aligned to, an organisation’s business strategy. Kezner (2003) argues that strategies tend to derive from a formulated business strategy through executives. Thus, reinforcing the rationalist strategy approach: project strategies aligned with organisational strategies. However, Milosevic and Srivannaboon (2006, p. 107) suggest that to align project management elements and business strategy, organisations should ‘interpret their business strategy in the context of project management by initiating and selecting projects to fulfil business needs.’ The empirical literature tends to focus on the degree of project autonomy from its parent organisation, and mechanisms that organisations use to align project strategy with business strategy. Artto et al. (2008b) paper also suggests that future project strategy research should focus on connections between a parent organisation’s project and stakeholder strategies. This strongly suggests that future empirical studies should consider the potential impact and influence of stakeholder performance, conflicting or aligned with the implementation of project strategies.
2.2.6 Gaps and Areas for Project Management Advancement

The body of the literature indicates that in previous studies on the concept of project strategy and the front-end may not have duly focused on the elements that may influence organisational strategic decision-making in project environments, especially the relational space of organisation actor (inter)actions. The literature typically assumes that a project’s strategy is derived from a parent organisation’s business strategy, cascaded down from organisational executives, with static and rational objectives, plans, and mechanisms (Artto et al. 2008a). Although Walker et al. (2008b) does provide a number of different lenses to see project strategy, especially the descriptive strategic school which is laced with mechanisms on how strategy does take place in project environments, it still lacks sufficient empirical evidence. Moreover, the literature tends to show gaps for the concepts of strategic intent, collective leadership, institutionalism and institutional work dealing with complex or chaotic domain situations, and project strategy for the implementation of project policies. With strategic intent, there needs to be more empirical evidence on the strategy for achieving vision and mission statements, the desired leadership position, the necessary collective and coordinated mechanisms needed for project policy implementation and capturing powerful stakeholder views. Collective leadership for project policy implementation needs to focus on the emergent, fluid, co-evolving, relational and collective (inter)actions of organisational actors towards high performing teams, which will enable a deeper understanding of the relational actor space. There also needs to be an understanding of the mechanisms for creating, maintaining and disrupting institutional project relations – the cultural norms, values, and regulations, particularly through the process of sensemaking and sensebreaking that govern the project policy implementation (change) process. Finally, effective strategies for developing and deploying project policies to achieve desired ends.

The literature also strongly suggests that the implementation of project strategy tends to be heavily politicised, but there is a considerable lack of understanding of factors, especially at the front-end of projects, that influence organisational strategic decision-making on the implementation of project policies. However, the strengths of the literature lie in its stakeholder focus, which contributes to the knowledge of organisational strategic decision-making in project environments. The literature views the autonomy of a project based on the complexity of a project’s stakeholder environment, depicted in figure 2-2. Artto et al. (2008b) suggest that projects should consider the complexity of its stakeholder environment including stakeholders’ different strategies and stakeholder alliance formation in its selection of project strategy and implementation. In other words, project strategies can be shaped by diverse stakeholders who may have diverse interests in the projects. The concept of institutionalisation explained by Scott (2014) also identifies agency as being a vital shaping mechanism of how strategy is perceived, shaped, re-interpreted within dynamic situations.
However, it is worth noting that a typical project may involve a number of stakeholders who may not necessarily share common views and interests, and tend to pursue their own interests. Furthermore, stakeholders may not necessarily share equal rights and responsibilities over a project lifecycle. In this study, the above dynamics among stakeholders’ help reinforce the fact that project strategies are influenced, to a degree, by organisational principals and actors within the project environment. Mullay (2015) also emphasizes that very few projects are actually aligned with organisational strategy.

This literature review has identified that there are existing knowledge gaps on the concept of project strategy and the front-end and its interpretation into action. Salient gaps include strategic intent, collective leadership, institutionalism and institutional work, and the concept of project strategy for the implementation of project policies. For example, an understanding of individual and organisational interactions; internal and external factors (including the level of complexity or chaos) that may influence project strategy implementation; translation of strategy in projects; and the influential impact of stakeholder performance, conflicting or aligned, with project strategy. Additionally, empirical studies need to expand investigations into other business sectors or areas (e.g., infrastructure, aerospace, defence, health, public, private, ICT system implementation or organisational change), pluralistic organisations (e.g. universities, hospitals, state or federal government departments), and other countries especially with the emergence of virtual environments. Such empirical studies would then significantly deepen our understanding of: what kind of elements may influence the implementation of project strategy; the extent of project independence from a parent organisation; and how strategy gets implemented into projects in the public sector and private sectors. See table 2-1 for the concepts, salient characteristics, gaps and areas for project management advancement. This research will address these gaps in the literature.
### Table 2-1: Summary of Salient Theoretical Literature on Project Strategy and the Front-End

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Salient Characteristics</th>
<th>Gaps and Areas for Project Management Advancement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic intent</td>
<td>• Vision and mission statement</td>
<td>Strategic intent including the strategy for achieving vision and mission statements; the desired leadership position; the necessary collective and co-ordinated mechanisms for project policy implementation including capturing powerful stakeholder views.</td>
</tr>
<tr>
<td></td>
<td>• Strategy for achieving that vision</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Desired leadership position with collective and co-ordinated action</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Powerful stakeholder views</td>
<td></td>
</tr>
<tr>
<td>Collective leadership</td>
<td>• Emergent, fluid, co-evolving, relational and collectively enacted phenomenon constructed in actor interactions</td>
<td>Collective leadership mechanisms needed for project policy implementation, especially understanding the relational behaviour of actors.</td>
</tr>
<tr>
<td></td>
<td>• Formal and informal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Understanding the relational behaviour of actors</td>
<td></td>
</tr>
<tr>
<td>Institutionalism and institutional work</td>
<td>• Responsive and adaptive organism</td>
<td>Institutional responsiveness and adaptation to internal and external stimuli; actor (inter)actions i.e., mechanisms for creating, maintaining and disrupting institutional project relations with legitimate and illegitimate disruptions especially for the implementation of project policies; and institutional logics in changing institutions.</td>
</tr>
<tr>
<td></td>
<td>• Comprising rules, norms and meaning in interactions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Needs legitimacy but may be illegitimate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Understanding of relational spaces including institutional logics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Institutional leadership with significant effort</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Understanding actor (inter)actions i.e., creating, maintaining and disrupting institutional relations</td>
<td></td>
</tr>
<tr>
<td>Project strategy</td>
<td>• Ambiguous in existing literature</td>
<td>Effective strategies for developing and deploying project policies; the dynamic and pluralistic nature</td>
</tr>
</tbody>
</table>
Improving the Link between Project Management and Strategy to Optimise Project Success

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Salient Characteristics</th>
<th>Gaps and Areas for Project Management Advancement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Limited understanding of the plurality of project strategies or how it gets translated into projects</td>
<td>of project strategy implementation to achieve desired ends.</td>
</tr>
<tr>
<td></td>
<td>• Often assumed and seen as a linear or rational function: obedient servant or image of its partner organisation’s business strategy, but is seen as dynamic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Significant agency duplications</td>
<td></td>
</tr>
<tr>
<td>Contextual factor influence</td>
<td>• The dynamic nature of interpreting the project</td>
<td>Understanding how people make sense of the situation they face and how they respond to re-interpreting the ‘given’ strategy and ‘vision’ into a workable approach. Understanding how technology may trigger complexity and the emergence of unanticipated consequences.</td>
</tr>
<tr>
<td></td>
<td>• Uncertainty and ambiguity emergence influence factors due to technology or stakeholder pressures</td>
<td></td>
</tr>
</tbody>
</table>

2.3 Decision-Making Theory

2.3.1 Decision-Making

Decision-making, which is strongly related to strategy, tends to be seen as a rational and easy process: a commitment to action that follows a pattern (Langley et al. 1995, Mintzberg and Westley 2010, Parkin 1996). First, we define the problem, then diagnose its causes, next design possible solutions, and finally decide which solution is best for implementation (Mintzberg and Westley 2010). However, this rational process turns out to be uncommon, especially in organisations. This is due to the fact that decision-making is a cognitive phenomenon with assessments of consequences and uncertainties (Brindle 1999, Brunsson 1982, Eisenhardt and Iii 1988, Müller et al. 2008). In addition, action is ‘not a combination of ‘acts’: ‘acts’ are constituted only by a discursive moment of attention to the duree of lived-through experience. Nor can ‘action’ be discussed in separation from the body, its mediations with the surrounding world and the coherence of an acting self” (Giddens 1984, p. 3). A number of theorists have used the following metaphors to describe organisational decision-making: ‘constellations or galaxies of individual decisions,’ ‘rope’ of
Chapter Two: Literature Review (Part I)

‘intertwined issues,’ ‘a flowing stream, filled with debris, meandering through the terrain of managers and their organisations’ (Langley et al. 1995, p. 269). But is the confusion in the decision-making process or the way people observe decisions? To understand this more deeply, Mintzberg and Westley (2010) discuss three major approaches to decision-making: ‘thinking first,’ ‘seeing first,’ and ‘doing first.’ They characterise the quality features of ‘thinking first’ by science, planning, verbal, and facts. ‘Seeing first’ by art, visioning, imagining, visual, and ideas. Finally, ‘doing first’ by craft, venturing, visceral, and experiences. They also conducted a number of workshops on the three approaches, which revealed the following:

‘Thinking first’ encouraged linear, rational and categorical arguments, where the group focused on problems. The group that were encouraged to ‘seeing first’ reached consensus that required collaboration and a deeper integration of ideas. There was laughter and a higher energy level. They focused on solutions. ‘Doing first’ generated more spontaneity with participants responding to one another intuitively and viscerally. Turf battles became evident with the surface of humour, power, fear and anger.

Moreover, Mintzberg and Westley (2010) also emphasise that each approach has its strengths and weaknesses. ‘Thinking first’ works best when an issue is clear, data reliable, the context is structured, thoughts can be pinned down, and discipline can be applied. ‘Seeing first’ is preferred when many elements have to be combined to form creative solutions, commitment to those solutions is key, and communication across boundaries is essential. ‘Doing first’ works best when the situation is novel and confusing, complicated specifications would get in the way, and a few simple relationships rules can help people move forward. In the previous discussion on the Cynefin framework we see these different types of thinking associated with the simple, complicated, complex or chaotic domains (Snowden and Boone 2007). The concept and benefits of ‘seeing first’ is also emphasised by Winter and Szczepanek (2009) in their book of Images of Projects. They state that to do a project, one must have an image of that project, which can be seen from multiple perspectives. By image they mean a project that is purposeful and action orientated in that they involve different people and organisations with aims and objectives, linked to differing interests and agenda, continually interacting together and doing things in an unfolding flux of events through time. With multiple perspectives, they focus on seven core images for engaging with complex realities of projects, being, social, political, intervention, value creation, development, organisational, and change. However, they emphasise that these are not the only images that can be used in practice. This concept is also reinforced by Andersen (2008) who states that projects can be seen from different angles or perspectives, a perception of reality, where there is more than one way to see the world. It appears from the literature that decision-making from the ‘seeing first’ perspective is more suited to project environments, especially for the implementation of project policies, which is bound by complexity, dynamics and uncertainty. This will be discussed next.
2.3.2 Strategic Decision-Making

Decision-making is also seen as strategic, especially in an organisational context where it is seen as complex and dynamic, in often unforeseen ways, and characterised by plurality (Buijs et al. 2009, Jean-Louis et al. 2007, Klijn and Snellen 2009, Kriger and Barnes 1992, Little 2015, Pettigrew 2003). According to Buijs et al. (2009, p. 37) complex systems are ‘dynamic and open, exhibit emergent properties and have the potential for qualitative transformations.’ This is also reinforced by Little (2015) on the complicated interaction of political actors on decision-making which will always generate emergent dimensions. Nutt and Wilson (2010, p. 3) define the term strategic decision-making as ‘important key decisions made in organisations of all types, and the term organisation to include any ‘collective social, economic or political activity involving a plurality of human effort.’ This implies that organisational strategic decision-making is an effortful social phenomenon carried out among and between organisational actors, which is also seen as ‘large, expensive, and precedent setting producing ambiguity about how to find a solution and uncertainty in the solution’s outcomes’ (Nutt and Wilson 2010, p. 4). This is also reinforced by Fligstein (1997) who sees strategic action as the ‘attempt of social actors to create and maintain stable social worlds (i.e., organisational fields).’ A strategic decision is also often difficult to reverse once implemented with commitment to human and financial resources (Aaltonen and Kujala 2010, Nutt and Wilson 2010).

Furthermore, some of the characteristics of strategic decisions are:

- They are elusive problems that are difficult to define precisely
- They require an understanding of the problem to find a viable solution
- They rarely have one best solution, be often a series of possible solutions
- Solution benefits are difficult to assess as to their effectiveness, in part because they lack a clear final end point against which effectiveness can be judged
- High levels of ambiguity and uncertainty are associated with solutions
- Realising hoped for benefits has considerable risk
- Strategic decisions have competing interests that prompt key players to use political pressure to ensure that a choice aligns with their preferences (Nutt and Wilson 2010, p. 4)

Amason (2011), Mintzberg (1987) present five definitions of strategy, which raises interesting questions about the nature and definition of strategic decision-making. Strategic decisions can be viewed as a plan: a course of action where leaders try to establish a direction for an organisation. Alternatively, it can be seen as a ploy: a specific set of manoeuvres employed to gain advantage. For example, a government decision to implement a policy to deliver a community infrastructure project may not be the overt strategy, but is more concerned with a political party’s motive to win another term in government. Thirdly, strategic decisions can be seen as a pattern: a stream of actions with consistent behaviour. These strategies may also be seen as deliberate with pre-existing intentions or emergent where patterns are developed in the absence
of intentions. Strategic decision-making can also be seen as achieving a *position*: a means of locating a strategy between an organisation and its external environment. Finally, strategic decision-making can be seen as a *perspective*: the way strategists in an organisation perceive the world and their organisation. This suggests that organisational decisions tend to result in plans or ploys, but the *strategic* element of them becomes apparent when decisions are examined together and the patterns and themes are uncovered (Nutt and Wilson 2010).

### 2.3.3 Organisational and Political Strategic Decision-Making

Organisational strategic decisions are also likely to stimulate political actions, observable, but often covert action, because they are complex, significant and subject to uncertainty (Child *et al.* 2010, Eisenhardt and Iii 1988). Strategic decisions shape the course of an organisation, which is crucial for its survival. There is also more at stake especially for those who stand to lose or gain from their decisions. Strategic decisions are made among people by people for people muddled by action, interaction and counteraction (Child *et al.* 2010). As implied previously, organisations comprise of distinct groups of people within different units with different motivations for getting involved in decisions. They compete for scarce resources which can cause considerable conflict (Eisenhardt and Iii 1988). Interest groups implement ‘political tactics to influence decisions which affect their positions and interests in an organisation’ (Child *et al.* 2010, p. 107).

In addition to the use of power, decision makers can use other tactics including forming powers of coalition, agenda control, tactics of timing affecting communications and meetings, the use of outside expert consultants, negotiation or bargaining, and the manipulation and control of crucial information (Child *et al.* 2010, Cyert and March 1963, Eisenhardt and Iii 1988, Eisenhardt and Zbaracki 1992, Elbanna 2006, Pettigrew 2001). The use of other tactics and how they influence organisational strategic decision-making will be discussed in section 3.3.4 of this thesis.

The literature provides a good understanding on the concept of organisational strategic decision-making, particularly the (inter)actions between and amongst people within organisations. Some political actions also arise primarily from the exercise of formal authority by those in hierarchical positions (Child *et al.* 2010). Langley *et al.* (1995) suggest that decisional behaviour may be either vertically intertwined (decision-making is undertaken by one actor) or horizontally intertwined (decision-making is undertaken by a number of actors). They argue that horizontal decisional behaviour, as seen in rich cultures with a deep net of interactions, encourages innovation in interactive ways, often referred to project organisations, and vertical decisional behaviour is seen in organisations with formal hierarchical systems of authorisation. Similarly, this view is reinforced by Eisenhardt and Iii (1988) study on politics of organisational strategic decision-making in high velocity environments. They suggest that a centralised organisation is an impetus for politics, where CEOs preserve their power through the use of politics, and with decentralised organisations, members of a team are empowered and see little need to engage in politics. Moreover, they found that
politics is organised around stable coalitions whose membership is based on demographic characteristics, and the use of politics is related to diminished firm performance, which exhibits slow growth and low profitability. Similarly, Pfeffer (1981) came to the conclusion that power centralisation is expected to reduce the scope for political behaviour but it illuminates decision-making illusions, which therefore, affects organisational adaptability and survival. Here decentralisation of decision-making, vision and organisational culture, and power and influence are imperative for strategy implementation and success (Pfeffer 1992b). However, there is one negative consequence with horizontal decision-making. Empirical research shows that horizontal networks which lack a clear command structure and where decisions are made on the basis of consensus, are not capable of making fast and painful decisions (Klijn and Teisman 1991).

Advancing the previous points, others amount to politicking between organisational units oriented towards strategic decisions. According to Child et al. (2010, p. 113) the ‘political tactics that the members of organisational units employ to generate or exercise power over major decisions respectively concern the use of information and knowledge, and the manipulation of reputation and credibility.’ Organisational actors tend to form powers of coalition behind the scenes, offline lobbying, withholding information, and controlling agendas to enhance their power and influence strategic decisions (Eisenhardt and Iii 1988). Strategic decisions can also be influenced upward. While top management may continue to set strategic directions of an organisation, they also rely on proposals, briefs and detailed knowledge provided by managers in lower levels (Child et al. 2010). Which from a public administrative perspective, is often seen as street-level bureaucrats, which often have significant power to shape organisational decisions and policies as they directly interact with citizens in the course of their tasks (Lipsky 2010). Top management rely on this information to make organisational strategic decisions. This implies that managers (including project managers and other agency actors) in lower levels have significant power to influence organisational strategic decisions and project outcomes. For example, they can withhold information or use consultants with persuasive information to influence top management in making decisions that serve their agendas.

Mowday (1978) conducted a study on the effectiveness of five methods of upward influence that revealed manipulation followed by persuasion as the most subtle methods of exercising upward influence. According to Child et al. (2010, p. 114) an ‘advantage of covert methods of influence such as manipulation lies in the fact that organisational actors seeking to exert influence over a decision retain a greater degree of credibility and flexibility insofar as their intentions are not known and they are not perceived to be self-serving.’ Senior management decisions can also become volatile when they are advised by specialist actors i.e., advisors with exclusive competencies or expertise, and senior management cannot readily substitute for them (Child et al. 2010). This further reinforces that fact that lower level management, or intra-organisational actors, can exert significant influence on top management strategic decisions, and thus affect organisational and policy survival.
Organisational strategic decisions can also be influenced by inter-organisational actors. This suggests that organisations can collude and form alliances within an intertwined web of relationships with other organisations, agencies and actors to influence strategic decisions. This is reinforced by Tushman (1977) who states that inter-organisational actors can either implement competitive strategies, such as seeking power or prestige, or collusive strategies, such as co-opting and forming coalitions. Hillman and Hitt (1999) suggest organisations that possess greater resources are more likely to be politically active. Child et al. (2010, p. 116) emphasises that ‘situations that involve competition for resources and their allocation, both within and between organisations, generate conflict and encourage political behaviour.’ This implies that governments can influence business outcomes, as they have significant financial resources funded by taxpayers, by altering market conditions. For example, governments can introduce policies that increase the amount of infrastructure projects. On the other hand, multinational corporations can influence government strategic decisions with their ability to relocate to other states or countries, which can have a significant impact on the level of employment and state survival. Other government agencies can also block or significantly delay strategic decisions, which can be achieved through legal, regulatory, public pressure, and when prevailing norms and rules conflict with interests (Child et al. 2010), which is particularly prevalent with the implementation of major project and program policies (McConnell 2010). This was evident in the State of Victoria when the Labor Government made a strategic decision to stop the proposed AUD $10.7 billion East West Link PPP transport megaproject proceeding, which was initiated by the previous government, and ‘paid-out’ the project’s consortium AUD $339 million through political tactics, legal and public pressure for the ‘dud’ megaproject (Premier of Victoria 2015a). Inter-organisational politicking, misrepresentation of costs and benefits were seen as the main contributors to this ‘dud’ megaproject (ANAO 2015).

Child et al. (2010) discuss some of the consequences of political behaviour in strategic decision-making. Firstly, political tactics that are successful in exerting influence over strategic decision-making lead to a selective and biased disclosure of relevant information. This can lead to managers making decisions on incomplete information, which may affect outcomes. Secondly, political decision processes are divisive. This can dilute organisational resources, which could have been directed towards achieving organisational objectives. Thirdly, political behaviour may lead to incomplete understanding of the environmental constraints, resulting in the undermining of strategic decisions. Similarly, Nutt (2010a) reviewed more than 400 decisions by executive level managers of major firms. The review showed that premature commitments and wasted resources were responsible for failed decisions. With premature commitments, decision makers felt pressured to act quickly, which stemmed from a desire to appear decisive, from fear and personal interests. This was evidenced on the ‘failed’ East West Link PPP megaproject where the then state government political party quickly executed a side letter with the project consortium prior to elections to
enforce the project contract (Premier of Victoria 2015b), which eventually led to the demise of that government, the megaproject, and compensation in the hundreds of millions. With misused resources, decision makers conserve resources, which leads to failure-prone practices. To overcome and avoid these traps Nutt and Wilson (2010) suggest that decision makers focus on technical, personal and organisational perspectives from different angles. Technical perspectives focus on facts and economic realities, the organisational perspective focuses on decisions through the eyes of the organisation, and the personal perspective focuses on decisions through the eyes of affected stakeholders. Nutt and Wilson (2010) also suggests that decision makers should select the area of action, deal with interests and interest groups, search broadly and encourage innovation, use evaluation wisely, confront ethical questions, and promote a culture of learning. This will enable decision makers to stay ‘issue centred using an exploratory mindset to cope with pressure to take action’ (Nutt 2010a, p. 191). Similarly, Child et al. (2010, p. 123) state that ‘while traditionally political behaviour has been defined by reference to serving sectional interests, it can also widen and enrich a debate over the best strategic paths to follow in the interest of the organisation as a whole. This implies that although politics in strategic decision-making tends to be seen as commonplace, and much of the research is focused on the negative aspects of political behaviour, it can take two paths: either constructive or destructive to an organisation.

2.3.4 Strategic Decision-Making in Professional and Public Organisations

While much as been discussed in relation to how decisions are made and the political aspects of strategic decision-making, it is also important to examine decision-making in professional and public organisations. Morris et al. (2010) examined decision making within professional services firms, especially the managerial challenges and organisational tensions faced by firms. The examination revealed that professional service firms are characterised by the nature of their work, external context within which their work is performed, and the organisational framework structures and systems. The nature of their work is characterised by the knowledge based features of task inputs and outputs including environmental autonomy, discretion and the exercise of personal judgement, ability to control and co-ordinate complex environments, being highly mobile, and intangible applications of complex knowledge. External context is characterised by organisational and commercial dimensions including cultural and environmental ideologies, deeply embedded professional norms and behaviour, changing market environment and increased competitive pressures, and client relationships. These have posed a number of managerial challenges, for example developing and maintaining a firm’s reputation, and the traditional means of addressing these challenges has been through collegial forms of governance in the form of professional partnerships (Morris et al. 2010). Despite the extensive research into professional organisational arrangements, there is limited understanding of how decisions are made and executed by professional service firms. In order to further understand this issue, Morris et al. (2010), conducted an exploratory study of large practice firms by interviewing managing partners and lead partners. However, prior to examining the study, it is worthwhile
stating the main difference between strategic decisions taken by professional compared to non-professional service organisations:

Non-professional service organisations relate less to capital investment decisions, which are relatively light in these firms, and more to investments in human capital. Strategic decisions in professional firms are much more focused upon policies to attract, retain, and create incentives for its human capital. These are crucial in order to nurture competence, creativity, and commitment amongst the firm’s most crucial assets, who are the foundations of professional service firms’ profits, reputation, and strategic expansion into new markets. Indeed, the growth imperative is driven as much by the need to manage the aspirations of professional staff as by external, market-based (especially client) considerations (Morris et al. 2010, p. 289).

The Morris et al. (2010) study revealed that professional service firms are engaged in strategic/non-strategic and easy/hard decisions. Strategic/easy decisions affect the firm and its major practices, for example, growth of service sector or client relationship strategies. Non-strategic/easy and non-strategic/hard decisions are routine and functional, for example, non-partner recruitment or organisational identity. Strategic/hard decisions or ‘people decisions’ are complex, difficult and of strategic importance, and involve significant resources and/or the direction of the firm. These decisions require the support and commitment of staff, especially building consensus among partners, to implement strategic decisions. However, as Morris et al. (2010, p. 297) state ‘these decisions are very difficult because partners are self-interested individual owners who expect a high degree of autonomy in the management of their work life and of their client engagements … which has a major influence upon the future performance and reputation of the entire firm.’ Morris et al. (2010) also noted that there is a noticeable difference in the decision-making approach of partner and publicly owned professional services firms.

Traditional partnerships pose a share of the firm’s equity and rights to question, debate, or contest strategic decisions, which can slow the decision-making process. However, in publicly owned professional service firms there is a separation of management from ownership, which results in ‘faster decision-making and less dissent in implementation, and a decision-making style which emphasises rationality, efficiency, and defined organisational goals over emotion and consensus via politicking’ (Morris et al. 2010, p. 299). This suggests that publicly owned professional service firms, compared with partnerships, operate in an environment with less challenges and influence over strategic decision-making and implementation. However, Morris et al. (2010) also notes that there is much to learn from professional service firms, as they have a diverse set of professionals embedded in a complex organisational environment which requires consensus amongst key and influential stakeholders, especially who controls vital resources for the organisation to survive and thrive. The Morris et al. (2010) notion of faster decision-making of private organisations is reinforced by Butler et al. (1991) study into strategic investment decision-making. Their
research described and investigated the process of capital investment projects of a strategic nature in three UK companies. Focusing on semi-structured interviews with managers that have the ability to influence strategic decision-making, and a questionnaire involving 32 questions on the investment process and its outcome. The findings of the intensive case study revealed that organisations which achieved a high consensus between managers, and high levels of communication, improved the effectiveness of the decision-making process, especially the speed of decisions. Decisions with the lowest perceived effectiveness lost support from those involved in the decision-making process and took a long time to implement. However, all three organisations perceived the effect upon product quality and productivity, fit with business strategy and competitive position of the organisation as being the most important factors to consider when evaluating decisions. Although the study does provide a good understanding of strategic investment decision-making and the influences thereof, it does pose a number of limitations including the involvement of managers’ own rating of their decision effectiveness, factors the influence the strategic decision-making process, and a focus on private organisations.

Compared to private organisations, decisions in public organisations can, and usually do, have broader implications. Rainey et al. (2010) undertook an extensive review and analysis of decision-making in public organisations. They assert that public decision-making processes differ little from private organisations, particularly that public organisations engage in ‘rational’ decision processes, and that government and private organisations often do the same things. For example, they engage similar stakeholders (contractors and consultants), governments frequently contract-out some of their services, such as PPPs for projects, and frequently face similar decisions. However, the major differences between public and private organisations are that public organisations operate under the authority of government and receive authorisation and funding (through taxes and budgetary allocations) for their activities from government, and private organisations must sell products and services to customers to receive most of their financial resources. This implies that public organisations are subject to more control and direction that is politically constrained, while private organisations are subject to less authority but constrained to find innovative ways to use their autonomy to sell their products and services to customers. Rainey et al. (2010) also argue that these general differences in control and direction establish the context for organisational decision-making. They state that public decision makers have to consider implications for broad populations and constituencies, and thus become subject to more public scrutiny, such as media and interest groups, while private organisations ownership is vested in private owners and shareholders. These differences influence organisations decision-making, processes and structures. Rainey et al. (2010, p. 354) state that:

The authority of leaders in public organisations tends to be more limited, by external political interventions and controls and shifts in the election results, and through structures of constraints such as constitutional limitations, and system-wide personnel and purchasing rules that limit
administrative authority. These administrative constraints lead to differences in incentive structures and processes within public organisations.

Rainey et al. (2010) also provide a number of assertions and evidence about decision-making in public organisations. They state that public organisations tend to engage in routine and rational decision-making processes, which tends to apply to simple and operational contexts. With rational decision-making actors enter decision situations with known objectives, gather appropriate information, develop a set of alternatives, assess the possible consequences, and the select the optimal alternative (Eisenhardt and Zbaracki 1992, Lindblom 1959, 1979, Pfeffer 1981, 1992a, 1992b). However, major decisions in public organisations tend to be intertwined within a web of complexity and dynamism. When decision makers engage in major and complex decisions, the ‘deluge of information and uncertainty overloads decision makers’ cognitive capacity to process it, which causes them to decide under conditions of ‘bounded rationality,’ and do not maximise in accordance with rationality assumptions; they ‘satisfice’ (Rainey et al. 2010, p. 356). With satisficing, decision makers search for alternatives and solutions in relation to problems rather than in a systematic way, which tends to result in satisficing outcomes (Harrison and Pelletier 1995, Little 2012, 2015). They also rely on technical knowledge to assist them to solve problems and accomplish tasks. This tends to be the common approach to decision-making in public organisations (Rainey et al. 2010). However, when decision makers have ‘no clear consensus on goals and little clarity as to the technical means of achieving them, they engage in ‘satisficing’ behaviours, such as bargaining and political manoeuvring and more intuitive, judgmental decision-making, which occur more often in public as compared to the private sector’ (Rainey et al. 2010, p. 357).

Advancing the rationality of decision-making, Dietrich and List (2013) suggest an alternative theory to rational choice with reason-based theory. Here the focus is on preference formation, particularly, reason-based explanations (motivating) and reason-based justifications (normative). A proposition attains motivational relevance for an agent’s preferences when an agent: (a) conceptualises it abstractly; (b) qualitatively, and not merely abstractly, understands it; and (c) draws on the concept of attentional salience. Although the motivating reasons explain why agents make a choice, they also must be justified on whether the agent has made them for the right reasons. According to Dietrich and List (2013, p. 117) ‘while reason-based explanations must refer to motivating reasons, reason-based justifications require a reference to normative reasons.’ Normative reasons focus on what an agent ‘ought’ to have as a reason, for example, whether the reason is a rational or moral one. Such a theory based on reason i.e., reason-based model of choice, also focuses on rationality as valid inference, rather than rationality as optimal choice, as it is ‘the procedure that makes one rational or irrational’ (Viskovatoff 2001, p. 328, emphasis in original). This begs a question: considering that individuals have mixed motives i.e., different values which may diverge from common interest, and make a choice ‘irrational,’ can motives align? And if so, how? This is a typical
question situated in government portfolios with the *prima facie* challenges on the implementation of megaproject or program policies, which entail numerous strategic, political, social and economic interactions. According to Almendares and Landa (2016) such a phenomenon can be seen as collective action problems with a solution based on strategic equilibrium-based reasoning. This ‘links the characterisation of joint intention (similarly seen as joint motivation) in terms of individual intentions – an equilibrium view – with conditions on strategy profiles of the underlying strategic games,’ such as counterfactual conditions to achieve equilibrium strategies of jointness (Almendares and Landa 2016, p. 733). This implies that strategic equilibrium-based reasoning is based on two minds of rationality: conscious and unconscious. Evans (2014) moving on from ‘traditional thinking’ comprising of Type 1 (described as fast, automatic and high capacity) and Type 2 (described as slow, controlled and low capacity) processes, conceptualises two minds rationality: an old mind rationality (succeeded in or adaption to the past) i.e., implicit knowledge, instincts and learned behaviour, and new mind rationality (reasoning about the future) i.e., explicit knowledge, engaged in mental simulations of hypothetical possibilities and consequential decision-making, that co-exist in complex interactions. However, a significant limitation of the old mind is to ‘make decisions by reasoning about future consequences’ (Evans 2014, p. 138). This is where epistemic rationality, classically described as *truth seeking*, and sometimes referred to as theoretical rationality or evidential rationality (see Stanovich 2011), seen as the ‘propensity of learning systems to form accurate representations of the world around us,’ an occupation of the new mind, ‘compensates’ for the old mind (Evans 2014, p. 135). However, the ‘formation of habits in the old mind is by its general learning mechanism as a major cause of two minds conflicts and cognitive biases’ (Evans 2014, p. 142). For example, when a project manager decides out of habit, s/he may fail to notice innovative solutions to a challenge which would require new mind resources for the solution.

Besides rational and bounded rationality decision-making, Rainey *et al.* (2010) also discuss additional alternatives to decision-making in public organisations, being Prospect Theory and Poliheuristic Theory. Prospect Theory assumes that decision makers have cognitive limitations and frame a problem around a reference point of losses and gains, such as possible losses of budget, credibility, program or human resources. Poliheuristic Theory explains decision-making as more rational and focuses on the development of alternatives and choice with decision makers performing five sequential processes. This consists of employing a non-holistic approach rather than a full comparison of alternatives, then discarding alternatives that fail to meet their minimal requirements, followed by assessing alternatives on an irrelevant dimension(s), then adopting a satisfying behaviour, and finally employing an ‘order-sensitive search’ of the alternatives (Dacey and Carlson 2004, Mintz 1993, Rainey *et al.* 2010). However, the general consensus by researchers on decision-making processes in public organisations is that strategic decisions tend to follow an incremental process with limited changes from existing conditions (Lindblom 1959, Rainey *et al.* 2010). Lindblom (1959, 1979) states that government actors tend to avoid major departures from
existing policies and instead concentrate on relatively limited incremental steps. He also suggests if
government actors deviate too far from existing policies it may evoke strong opposition, but if they
implement incremental processes there is a good chance a policy will achieve its objectives with minimal
opposition from interest groups. Rainey et al. (2010) also suggest that strategic decision-making processes
in public organisations tends to follow a ‘garbage-can’ process. This is a process in which problems,
solutions and choices are uncoupled from one another in highly complex and dynamic environments (Jean-
Louis et al. 2007, Langley et al. 1995). Moreover, it lacks a clear beginning and end point in the decision-
making process, and decision makers tend to wander in and out of decisions (Eisenhardt and Zbaracki 1992,
Langley et al. 1995). According to Eisenhardt and Zbaracki (1992, p. 29) decisions ‘are not the result of
analysis by bounded rationality or the power of a coalition, but rather are a random confluence of events.’
This type of decision-making process tends to occur frequently in public organisations (Rainey et al. 2010).

In addition, most of the research on decision-making focuses on pre-decision information gathering and
processing patterns. However and from another perspective, Svenson (1996) presents the Differentiation
and Consolidation Theory of human decision-making, a process approach to pre- and post-decision
processes. This theory distinguishes four different types of decision-making processes. The first level
includes many quick, automatic and unconscious decisions. This suggests that decisions are made from
previous experience, for example, familiar situations, habit or knowledge-based behaviour. Decisions based
on a number of attributes favouring a chosen candidate belong to level two decisions. This is where a
solution is obvious and decisions are based on emotional reactions, which may not involve conflicts. The
third level of decision-making refers to choices between alternatives with goal conflicts. This is where
different attributes favour different alternatives. Most of the existing literature on decision-making treats
decisions at this level. The fourth level of the decision-making process alternatives are not fixed nor is a set
of attributes used to characterise alternatives. Problem solving is an essential sub-process that constitutes
this level. This implies that there is not a one-size-fits-all process to decision-making nor is it a linear
process.

Moreover, decision-making can be either a fairly simple process based on familiar situations and habits, or
a highly complex process based on problem solving with a number of alternatives with goal conflicts.
Similar to Svenson (1996) decision-making theory, Snowden and Boone (2007) discuss the Cynefin
framework which enables organisational actors to make better decisions based on five contexts defined by
the nature of the relationship between cause and effect: simple, complicated, complex, chaotic, and
disorder. Simple contexts are characterised by stability and clear cause and effect relationships, repeating
patterns and consistent events within the realm of ‘known knowns,’ fact-based, and decisions are assessed on sense, categorize, and respond process. Complicated contexts may contain multiple answers, but not
everyone can see the relationship between cause and effect. Expert diagnosis is required within this realm
of ‘known unknowns,’ which is fact-based and decisions are assessed on a sense, analyse, and respond process as it may contain several options. It also enables leaders and experts to approach decision-making more creatively. Complex contexts are characterised by flux and unpredictability and there are no right answers. There are many competing ideas, there is a need for creative and innovative approaches within this realm of ‘unknown unknowns’ where decisions are assessed on the need to probe first, then sense, and then respond. Decision-making in most contemporary businesses and organisations have shifted into this context. In chaotic contexts, there is no clear cause-and-effect relationship, and thus no point in looking for the right answers. This is the realm of unknowables where there are many decisions to make, but no time to think. Actors need to look for what works instead of seeking the right answer. For example, the events of the Fukushima nuclear accident fall into this category (Fukushima Nuclear Accident Independent Investigation Commission 2012). The literature on decision-making implies that it is essential to understand human decision-making behaviour and the environmental contexts of decision-making to maximise or optimise strategic decision-making in project environments – thus the relational actor space. The literature also suggests that organising decisions can be, and usually are, a complex and dynamic process with a number of alternative solutions or competing ideas that require a collective approach to a course of action. Müller et al. (2009, p. 77) argue as emphasised by Davis (1992) that ‘social factors can play a role in a variety of personal decisions, but it is the collective, co-ordinated action by a group of individuals that generates a choice, judgement, and opinion.’ This is especially prevalent in decision-making styles in project teams composed of team members from different nationalities (Müller et al. 2009).

A central theme in organisational strategic decision-making is focused on the attempt to understand individual, group and organisational decision-making processes: the emergent behaviour of organisational actors. For example, as advanced previously, executive groups within government agencies make important decisions with far-reaching consequences that affect businesses, economy, environment, and projects that are funded by the public. Because of this, most of the literature on decision-making deals with the quality of decision-making and how to improve it. Along with that, Parkin (1996) conducted a critical analysis on organisational decision-making and the project manager, and theorised that humans undertake the decision-making process in five stages, consisting of: (1) problem definition; (2) thought; (3) judgement; (4) decision; and (5) action.

Parkin (1996) highlights that the decision-making process is influenced by external elements being behavioural, beliefs, personal values, social and occupational norms, personality, and environmental constraints. Parkin also argues that a project management team may have a relatively small influence on decisions when compared to the larger, and thus, highly influential organisational networks of influential actors. Does this imply that a project that is independent of an organisation, thus organisational network of actors, has more control over the decision-making process, and thus a greater chance of success? Similarly,
Bourgault et al. (2008) conducted an empirical study using a quantitative approach on decision-making within distributed project teams. The results support the benefits of a quality decision-making process within distributed teams, autonomy is an important characteristic for successful dispersed teams, and formalisation does add value to teamwork especially as the distributedness of the team increases. Their study suggests that team effectiveness increases when actors take an influential role in team decisions, feel a sense of authority, responsibility and accountability, which has a direct influence of the value of outcomes. Despite the value of the results for quality of decision-making and teamwork, especially shedding some light on rationality of decisions, it does have a number of limitations. This includes a focus on private firms and respondents in North America, limited understanding of the decision-making process especially the strategic context, and factors that influence team decision-making processes. Aaltonen and Kujala (2010) also conducted an empirical study on understanding of the potential of secondary stakeholders to influence the project management’s decision-making during the different phases of the project lifecycle. Their findings reveal that secondary stakeholders are most salient in the investment phase of projects, and hence, have the best chance to influence the project management decision-making. Other findings include that secondary stakeholders are unlikely to influence project outcomes during the early phase of the project lifecycle. Despite the value of the results for secondary stakeholder influence on project management decision-making, it does pose some limitations. This includes a focus on a private construction firm and respondents in South America, and a simple example of the use of influence strategies by secondary stakeholders within a project environment.

As mentioned previously, organisational decision-making can also be influenced by and imbedded in routines, habits and emotions. Organisational routines are continuously emerging systems with internal structures and dynamics (Becker 2005, Pentland and Feldman 2005). Pentland and Feldman (2005) state that organisational routines can either exhibit continuity thus demonstrating traits of inertia and stability, or exhibit continuous change thus demonstrating traits of flexibility and change. Becker (2005) argues that although further research is needed to understand the concept of ‘organisational routine,’ it is usually an abstract pattern of relationships (or rules) and a path of action. Cohen (2007) explores the study of routine by reflecting on American pragmatist philosopher John Dewey theory of human learning. He argues that organisational routine tends to be rigid (routine patterns of action), mundane (lack of importance) and mindless (not tightly integrated with deliberation, reflection, or feelings). This implies that organisational routines tend to be encoded or formalised in organisational policies and procedures. However, organisational routines can be shaped or changed based on Dewey’s theory on the dynamic interplay of habit, thought and emotion (Cohen 2007). He also goes on to state that this suffuses perception and reflection, conveys emotion, constitutes character and embodies morality. In order to better understand organisational routines, Pentland and Feldman (2005) propose three different units of analysis: routines as ‘black boxes,’ in isolation (e.g. routines as patterns of action), and relationship between these parts and
processes. The study reveals that the ‘black box’ routine is simple and general but it can lead to a narrow understanding of organisational routines. When considered in isolation, there are three possibilities to consider: the performances, the ostensive aspect, or the related artifacts. Exploring the relations between ostensive and performative aspects, ostensive routines and artifacts; performances and artifacts provides a better understanding of stability, rigidity, innovation, flexibility and change in organisational routines. By artifacts they mean organisational rules, policies, procedures, program guidelines, and general physical settings. Implicitly, the study indicates that organisational routines are powerful mechanisms that can shape organisational actors and influence the decision-making process. Managers are able to exercise power by ‘motivating people to change their performances in a routine or to change their understandings of what the routine is supposed to do or how it is supposed to be enacted’ (Pentland and Feldman 2005, p. 809). This implies that organisational actors can form powers of coalition to either dominate or resist organisational routines or the performance of routines, and thus the decision-making process, but it is still an effortful and time consuming process (Pfeffer 1992b). This is especially evident in bureaucratic and hierarchical organisational frameworks.

Furthermore, the literature on organisational routines, habits and emotions suggests that they can either enable or constrain organisational strategic decision-making processes. Senior management can influence actors by exploring the internal dynamics of organisational routines to ‘favour’ their course of action. Organisations can also take different approaches to routines activities by employing some of Cohen (2007) suggestions, which provides some insightful ways of thinking about the concept of routine activities within an organisational environment. However, the literature is limited in significant ways including thorough reviews and research studies, especially external influences on organisational routines. The literature review shows gaps of influential factors that shape organisational routines or means, and the effects of changes of routines or means on organisational strategies in different contexts. This study will address the existing gaps in the literature. However, it does provide an opportunity for detailed research to gain a deeper undertaking of the theory of organisational routine or means and strategic decision-making in project environments.

The importance of quality decision-making in project environments has also been emphasised in many government reports. The Victorian Auditor-General's Office (2012a) investigated the delivery of major infrastructure projects by Major Projects Victoria (MPV). The report concluded that MPV is unable to demonstrate that it operates and manages infrastructure projects effectively, efficiently or economically. Impartiality in the decision-making process was a factor that contributed to MPV poor portfolio performance. Since the audit report, MPV has dissolved as a governing project entity and merged with another government agency for the delivery of major projects. Similarly, the Parliament of Victoria (2012) conducted an inquiry into effective decision-making for the successful delivery of significant infrastructure
projects. The report revealed that the Victorian government should strengthen the quality of its decision-making competencies in major infrastructure projects, which should, in turn, achieve higher performance infrastructure projects and generate higher community benefits. Similar conclusions were drawn from the Australian Government Productivity Commission (2014) inquiry report into public infrastructure. Furthermore, the Fukushima Nuclear Accident Independent Investigation Commission (2012) conducted an investigation into the Fukushima Nuclear Accident. The report concluded that the accident at the Fukushima Daiichi Nuclear Power Plant ‘cannot be regarded as a natural disaster, but a manmade disaster due to the faulty rationales for decisions and actions’ (Fukushima Nuclear Accident Independent Investigation Commission 2012, p. 9). Moreover, the essentiality of quality decision-making is also reported by Nutt (1999b) and Miller et al. (2008) who state that at least half the decisions made in organisations fail. The reports timely remind us of the significant importance of quality decision-making in major projects that have significant financial, social, morale, and environmental consequences.

2.3.5 Gaps and Areas for Project Management Advancement

Past research trying to understand decision-making in project environments have focused on the front-end, and the quality and influence of stakeholders on the decision-making process. While the researcher recognises the value of existing decision-making literature, and the literature on project decision-making, the researcher finds that significant attention is still required at the project level, especially empirical studies in the context of strategic decision-making. This can include understanding the way people observe decisions, and the influence of inter- and intra-organisational actors on the decision-making process in project policy environments. The context and organisational norms can also significantly influence project decision-making. For example, Parkin (1996) does not discuss how other internal and external factors may influence the decision-making process. Although Parkin’s model mentions incremental decision-making, it does not discuss decision-making timeframes. Additionally, the literature implies that project decisions are made from senior management or hierarchical powers of influence cascaded down to the project team to deliver the organisations strategies, but does not discuss an independent project decision-making process, only that a project manager must demonstrate a high level of leadership and control over the project when reporting to senior management. Thus, the literature tends to show knowledge gaps in the concepts of decision-making, strategic decision-making, organisational and political strategic decision-making, and strategic decision-making in professional and public organisations for the implementation of project policies. With decision-making, there needs an understanding of the cognitive phenomenon of decision-making, especially the ‘seeing’ of decision-making by organisational actors. There also needs to be a deeper understanding of the complexity, dynamism, plurality, and the emergent properties of strategic decision-making and its affects project policy implementation. The political, inter- and intra-organisational (inter)actions of strategic decision-making, and the forms of ‘power’ that organisational actors use to shape or influence project policy implementation also needs deeper understanding. Finally, the way professional
and public organisations ‘make’ and the consequences of strategic decision-making on the implementation of project policies. See table 2-2 for the concepts, salient characteristics, gaps and areas for project management advancement. This research study will address these gaps in the literature.

Table 2-2: Summary of Salient Theoretical Literature on Decision-Making Theory on the Implementation of Project Policies

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Salient Characteristics</th>
<th>Gaps and Areas for Project Management Advancement</th>
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<tbody>
<tr>
<td>Decision-making</td>
<td>• Tends to be seen as a rational and easy process</td>
<td>Cognitive phenomenon of decision-making on the implementation of project policies, the ‘seeing’ of decision-making by organisational actors within a project policy context.</td>
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<tr>
<td></td>
<td>• Cognitive phenomenon with assessments of consequences and uncertainties</td>
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<td></td>
<td>• Three approaches: thinking first, seeing first, and doing first</td>
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<tr>
<td>Strategic decision-making</td>
<td>• Organisational context seen as effortful, complex and dynamic with emergent properties</td>
<td>Complexity, dynamism, plurality, and emergent properties of strategic decision-making and its effects on project policy implementation.</td>
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<tr>
<td></td>
<td>• Has competing interests the prompt key players to use political pressure to ensure that a choice aligns with their preferences</td>
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<td></td>
<td>• Seen as either a plan, ploy, pattern, achieving a position, or a perspective</td>
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<tr>
<td></td>
<td>• Organisational decisions tend to result in plans or ploys, but the strategic element becomes apparent when decisions are examined together and patterns emerge</td>
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<tr>
<td>Organisational and political strategic decision-making</td>
<td>• Likely to stimulate political action, and often covert as they are complex, significant and subject to uncertainty</td>
<td>Political, inter- and intra-organisational (inter)actions of strategic decision-making for project policy implementation; and forms of ‘power’ that organisational actors use to shape or influence organisational strategic decisions on the implementation of project policies.</td>
</tr>
<tr>
<td></td>
<td>• Crucial for organisational survival</td>
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<tr>
<td></td>
<td>• Muddled by action, interaction and counteraction</td>
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<tr>
<td></td>
<td>• Actors tend to use power, form powers of coalition, agenda control, etc. to</td>
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<tr>
<td>Concepts</td>
<td>Salient Characteristics</td>
<td>Gaps and Areas for Project Management Advancement</td>
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<td>influence decisions and their positions and interests in an organisation</td>
<td>Professional and public organisations ‘make’ and the consequences of strategic decision-making on the implementation of project policies.</td>
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<td></td>
<td>• Can be either vertically or horizontally intertwined, and centralised or decentralised, but requires a clear command structure</td>
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<td></td>
<td>• Strategic decisions can be influenced upward, by inter-organisational actors</td>
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<td></td>
<td>• Organisations that possess greater resources are more likely to be politically active</td>
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<td></td>
<td>• Political tactics leads to selective and biased disclosure of information, political decision processes are divisive, political behaviour may result in undermining of strategic decisions</td>
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<td></td>
<td>• Can be either constructive or destructive to an organisation</td>
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<td></td>
<td>• Decisions in public organisations have broader implications (i.e., subject to more public scrutiny), but differ little from private organisations</td>
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<tr>
<td></td>
<td>• Public organisations operate under the authority of government and receive authorisation and funding for their activities from government, and are subject to more control and direction that is politically constrained</td>
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<td></td>
<td>• Private organisations must sell products and services to customers, and are subject to less authority but constrained to find innovative ways</td>
<td></td>
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<tr>
<td></td>
<td>• Public organisations tend to engage in routine and rational decision-making</td>
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Improving the Link between Project Management and Strategy to Optimise Project Success

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Salient Characteristics</th>
<th>Gaps and Areas for Project Management Advancement</th>
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<td></td>
<td>processes seen as a ‘garbage-can’ process, also major decisions tend to be intertwined within a web of complexity and dynamism, cognitive capacity is limited (i.e., bounded rationality), which tends to result in satisficing decisions and outcomes</td>
<td></td>
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<tr>
<td>•</td>
<td>Government actors tend to avoid major departures from existing decision-making policies, which if they did, may evoke strong opposition</td>
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<td>•</td>
<td>Can follow pre- or post-decision processes, or be a fairly simple or complex process (i.e., cause and effect relationship), or be influenced by external and internal environmental elements in different phases and degrees of an organisation and project</td>
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2.4 Summary

The first chapter of the literature review and analysis investigated factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. Particularly, with a focus on the muddled and strategic context i.e., complex, dynamic, plural and emergent properties of organisational strategic decision-making, intertwined in often unforeseen ways between different agency and actor (inter)actions. The literature review focused on two major areas, being: project strategy and the front-end, and decision-making theory. From these major areas of investigation, it can be argued that when considering the implementation of public sector project policies the following can be concluded:

- The implementation of project policies is difficult, complex, dynamic, and embedded within the complex fabrication of human behaviour (Artto et al. 2008a, Kay et al. 2006, Legge 2003). Here the implementation of project strategies is masterminded or crafted by organisational actors to achieve desired ends. To understand this ‘craftsmanship’ or Machiavellianism to project policy implementation, requires collective institutional leadership including an inspirational, sustainable
and clearly articulated strategic intent: vision and mission statement, a strategy for achieving that vision (i.e., capturing the ‘power’ of key and influential stakeholders, making the right decisions within the right structure and culture, understanding the relational behaviour of actors to achieve desired outcomes, etc.). This generates richly networked interactions – a deep understanding of the relational actor space (inter)actions – which is seen as ‘institutional work,’ the effortful actions of individuals and organisations in creating, maintaining and disrupting institutional relations – the emergent – to form a relatively stable state (i.e., adaptive ‘organism’ or institution) of interacting relations. Such a phenomenon to capture this complexity is sensemaking (Maitlis and Christianson 2014, Sandberg and Tsoukas 2015), and once legitimised, it enables systems to co-ordinate complex, flexible behaviour and respond to changes in their environments. This leads to the decision-making environment.

- Decision-making is strategic, complex, dynamic and characterised by plurality (Buijs et al. 2009, Jean-Louis et al. 2007, Klijn and Snellen 2009, Kriger and Barnes 1992, Pettigrew 2003). It is an emergent and effortful social phenomenon, embedded and embodied (i.e., covertly and overtly) within the (inter)actions of various organisational actors’ strategies, interacting in an unpredictable and unexpected manner (Byrne 1998), where the patterns of these strategies influence policy outcomes (Klijn and Snellen 2009) and organisational survival. Once implemented, it is often difficult to reverse (Aaltonen and Kujala 2010, Nutt and Wilson 2010).
CHAPTER THREE:
LITERATURE REVIEW (PART II)

3.1 Introduction

Chapter Three Prologue

What the previous chapter did:
The first chapter of the literature review provided a critical review and analysis of the relevant literature related to the research topic – this being, project strategy and the front-end, and decision-making theory.

What this chapter does:
Expands on the first chapter of the literature review and provides a critical review and analysis of the relevant literature on external and internal factors that influence organisational strategic decision-making, governance and policy implementation. This leads to a conceptual framework and proposition.

What the remaining chapters do:
- Chapter Four will discuss the research context, paradigm, methodology, and the case study approach in conducting the research.
- Chapter Five will discuss and describe the case study and the organisations selected as case studies.
- Chapter Six will provide the data analysis and interpretation of the case study.
- Chapter Seven will provide the validation of the case study research through a few mechanisms.
- Chapter Eight will provide evidence and reflections of the research process.
- Chapter Nine will provide the findings, insights and recommendation for practice and future research.

This critical review expands on the previous chapter on exploring the complex, dynamic, intricate, plural and emergent properties of organisational strategic decision-making for project policy implementation. Particularly, it focuses on two major areas of literature: (1) external and internal environmental factors that influence organisational strategic decision-making; and (2) governance and policy implementation. A review of the literature provides an understanding of the extent and how external and internal environmental factors that influence organisational strategic decision-making on the implementation of project policies. This includes the economy or economic environment, social environment, ethics, politics, expert knowledge, power and politics, information and knowledge, and culture. Governance theory is then reviewed to provide a context for understanding effective mechanisms for project policy implementation.
This includes a discussion on the concepts of governance, institutions and governance, agency theory, transaction cost economics, stewardship theory, trust and control, and project governance on policy implementation.

3.2 External Environmental Factors of Influence

This section of the literature review will discuss external environment factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure programs of projects. In particular, the economy or economic environment, social environment, politics, and expert knowledge.

3.2.1 Economy or Economic Environment

An influential factor that influences organisation decision-making is the state of the economy or economic environment (Hill 2009, Jabnoun et al. 2003, Johnson et al. 2003, Peters 2006, Pettigrew 2003), especially for the implementation and changes in policies (Hill 2009, Peters and Pierre 2006) including transport and infrastructure which stimulates economic growth and productivity (Bingham 2006, Button 2006, Cole 2005). Such a change in the economic environment is also a trigger for organisational sensemaking, for example, an organisational response to crises and unexpected events (Maitlis and Christianson 2014). Rumelt et al. (1991) conducted an extensive review of the relationship between strategy and strategic management and found that the changing nature of the economy is a major influential factor that shapes organisational strategy. Moreover, Elbanna (2006) argues that intuition plays a significant role in shaping project strategy in an unstable economy, but negatively in a stable one. Influential variables include the macro-environment, competition, market demand and uncertainty, and technology (Bingham 2006, Button 2006, Jabnoun et al. 2003). This is further stressed by Miller and Hobbs (2005) who state that high risks imposed on the governance regimes for large complex projects include macro-economic events such as the Asian economic crisis. This is significantly prevalent to the Australian resources sector, particularly, thermal coal projects. According to Saunders (2015) since 2011, the prices for thermal coal have significantly declined which has resulted in the closure and delay of projects. The main motivating factor was a change in policy measures to combat air pollution, particularly in China, Australia’s largest thermal coal importer. Another example is external market volatility (i.e., global or regional financial crises, abrupt changes in the stance of monetary policy in advanced economics) risk to investors for PPPs (Schwartz et al. 2014). However, they state that a way to mitigate these risks is by improving the overall investment climate e.g., political stability, rule of law and judicial access, government regulations, taxes, and government transparency and accountability. In general, the literature provides a narrow view on the level of influence the economy or the economic environment has on organisational strategic decisions where most of the literature is focused on the macro environment. This strongly suggests that a shift in strategy is needed towards a micro perspective to understand the complexities of organisational (inter)actions (i.e.,
tacit, cultural) that influence strategic outcomes (Johnson et al. 2003, Valerie-Ines de la and Eléonore 2005). This point is stressed by Pierre (2006) who summaries on the topic of decision-making and policy implementation, that there is much to understand how the economy, or economic theory, contributes to policy implementation especially at the micro level – as most of the theory tends to focus on the macro level. Although the literature tends to neglect empirical studies on project strategy, the economy, implementation of project policies, and the decision-making process, (Koch et al. 2015) examined strategising in project-based organisations with a focus on middle-managers’ interaction and strategy praxis. Their study showed that middle managers played an essential role in mediating and translating intention, which provided an understanding of the micro activations of operations strategy development and implementation within project-based organisations. However, due to this narrow and neglect of studies in the existing literature, there needs to be an understanding of the significance the economy, especially the micro-economic environment, plays in influencing project strategies.

3.2.2 Social Environment

The social environment is also an element that influences organisational strategies. Influencer forces come from a variety of groups including partners, contractors, unions, professional societies, agencies, special interest groups, regulators, governments, family and friends seeking to control the externalities of an organisation (Bourne and Walker 2005, Delmas and Toffel 2004, Mintzberg 1983, Pressman 1984, Shrivastava and Grant 1985, Winter 2006). These stakeholders impose normative and coercive pressures on organisations that influence organisational structures and practices (Delmas and Toffel 2004), and project policy implementation (Delmon 2011). For example, when firms adapt to environmental practices enforced (coercive power) by government agencies through legislation and regulations. Artto et al. (2008b) conducted an extensive literature review on the complexity of the stakeholder environment that recognised there are multiple stakeholders with strong and conflicting interests that influence project strategies. Similarly, Vuori et al. (2013) conducted a study on the formation of project strategy in response to the project’s environment and concluded that a project organisation needs to create a strategy to fit with the influence of its external stakeholder environment. Thus, project strategy fitness with its external (and internal) environment is an essential deciding factor if a project survives. This suggests that external organisational stakeholders are strong influencers of project strategy survival. Moreover, it implies that organisations should align, or fit, their project strategy with their external (and internal) environment. External influencers have the power to shape organisational behaviour by social norms, formal constraints, pressure campaigns, direct control, and membership on boards of directors, which can take many forms including regular or episodic, general or focussed, detached or personal, initiative or obstructive, formal or informal (Mintzberg 1983). He goes on further to state that external stakeholders can shape project strategy to their own advantage by employing an act of influence – the more acts, or shaper elements employed, the greater the power of influence over organisational strategy. Thus, a view can prevail that external
Improving the Link between Project Management and Strategy to Optimise Project Success

stakeholders have significant power to influence, and thus shape, project strategy including its survival. However, the empirical literature tends to focus on the degree of project autonomy from its parent organisation within a limited stakeholder environment. Empirical research should focus on identifying the effects of using different external social influencers in a project environment, especially incrementally over a project lifecycle, and consider a project’s stakeholder complexities e.g. (inter)actions.

### 3.2.3 Politics

Politics, or political power, has a significant influence in shaping organisational and project strategy (Buchanan and Badham 2008, Delmas and Toffel 2004, Eisenhardt and Iii 1988, Elbanna 2006, Mintzberg 1983, Pfeffer 1992a, Sallinen et al. 2013, Wilson 2003). Mintzberg (1983) is credited as being a pioneer in power and around organisations, especially powers of coalition and powers of configuration that influence strategies. This is reinforced by Pfeffer (1992a, p. 101) assertion that ‘one of the most important resources that any member of an organisation can have is allies or supporters.’ Mintzberg (1983, p. 172) defines politics as ‘individual or group behaviour that is informal, ostensibly parochial, typically divisive, and above all, illegitimate – sanctioned neither by formal authority, accepted ideology, nor certified expertise.’ This is reinforced by Mitleton-Kelly (2015) that an institutionalised authoritative mindset and illegitimate behaviour within a government agency tends to be a sign of survival than legitimate change. Similarly, Buchanan and Badham (2008, p. 11) define politics as ‘power in action, using a range of techniques and tactics.’ The concept of power and its influence on organisational strategies and decision-making will be further advanced in section 3.3.1 Power and Politics. Sallinen et al. (2013) conducted a study on a governmental stakeholder’s influence on large projects and concluded that a governmental stakeholder can simultaneously restrain and enable projects. For example, a government stakeholder can inform the public about projects and make requirements easier to apply (enabling influence), and can enforce requirements, interfere and halt project work (restraining influence) (Sallinen et al. 2013). The literature suggests that politics, especially when individual or groups form powers of coalition can influence project strategies. More surprisingly, is the fact that political influence can be enabling and restraining. Moreover, Eisenhardt and Iii (1988) argue that as a means of influence organisational actors tend to form external alliances with the aim to influence and shape organisational decisions. This is also reinforced by Freeman and Reed (1983) argument that external stakeholders have the ability to influence organisational strategy due to the use of political process, namely, stakeholders forming groups of coalitions that demand organisational change. Wilson et al. (2010) conducted a study on extreme events, organisations and the politics of strategic decision-making. The study revealed that there are pre-existing dominant powers of coalition that centralise control by ensuring that only a few functional interests participate in the decision-making process. However, further research is need to understand the influence of politics, and different forms of politics, on project strategy in government and non-government environments. Moreover, the
literature does not consider the influence of political power in different project contexts. Such empirical studies would deepen our understanding of the power of politics in shaping project strategy.

3.2.4 Expert Knowledge

Expert knowledge is essential to the decision-making process (Child et al. 2010, Clegg et al. 2006, Dean and Sharifman 1993, Pfeffer 1981, 1992a), which has the ability to significantly influence project strategy and decision-making (Eweje et al. 2012). De Bruijn and Leijten (2008) argue that the substance and generation of information is crucial to the decision-making process. Pfeffer (1992a) asserts that the use of external experts is a powerful mechanism used by internal organisational actors to selectively construct the appearance of legitimate and sensible decision-making. Eweje et al. (2012) conducted a study on the influence of information feed on decision-making by a project manager and concluded that externally-focused information types have the strongest influence on project strategy. Flyvbjerg et al. (2009) conducted a critical analysis on the delusion and deception in a large infrastructure project that revealed external expert actors can influence project strategy by presenting favourable and often deceptive information. Projects survive because the analysis of information may be biased or inadequate (Flyvbjerg 2009b, Williams et al. 2009), and external actors form powers of coalition with internal actors (Shrivastava and Grant 1985). In this view, external actors with expert knowledge can present or withhold information that can influence the decision-making process within an organisation – colluding with internal organisational actors to shape project strategies and decision-making processes. Consultants tend to provide information that looks favourably on paper with the objective for an organisation to obtain funding for a project (Flyvbjerg 2009b). Moreover, Flyvbjerg (2012) argues that projects tend to secure approval and funds by external actors providing information that underestimates costs and overestimates benefits. Similarly, Williams and Samset (2010) suggest that actors have the ability to interpret and use information differently to influence, and thus shape, the project decision-making process. The outcome of this is strategic misrepresentation of project costs and benefits (Flyvbjerg 2012). This provides the delusion of making projects feasible, but may have adverse consequences in the long-run. This is also reinforced by Klakegg’s (2009) study on identifying effective strategies to improve governance of public projects, which revealed that when pursuing sustainability of public projects, a critical element leading to a lack of sustainability is planning optimism or overestimation (deliberately or not) of project benefits which misleads decision makers. A report on the management of the Eurofighter Typhoon project by the National Audit Office (2011b) in the United Kingdom concluded that key investment decisions were made on the basis on over-optimistic cost estimates. The Ministry of Defence (MoD) did not predict the project budget and costs accurately due to poor corporate decisions, and as a consequence, the project costs had risen substantially in the billions of dollars. This strategic misrepresentation of project costs and benefits is also evidently evolving with the United Kingdom’s Future Nuclear Deterrent Capability program which is primary focused on the acquisition of a fleet of four new Vanguard-class submarines (National Audit Office
Initially, the UK’s MoD predicated the procurement cost of the submarines and associated equipment and infrastructure would be region of 15 to 20 billion pounds at 2006/07 prices (National Audit Office 2008, Secretary of State for Defence and Secretary of State for Foreign and Commonwealth Affairs 2006). However, in 2015, Her Majesty's Government (2015) announced the latest estimate is likely to cost a total of 31 billion pounds with an additional 10-billion-pound contingency fund – an increase of up to 16 billion pounds or 52 percent. Her Majesty's Government (2015) states that the revised cost reflects their greater understanding of the detailed design and manufacture of the submarines. In addition, the National Audit Office (2008) strongly implies that there are significant challenges of delivering complex defence projects, principally the MoD’s relationship with various industrial partners, including BAE Systems and Rolls-Royce. In general, the literature provides a narrow view of expert knowledge as an influencer on organisational strategic decision-making. The literature tends to focus on the power of experts to present or withhold salient information to influence strategies and the decision-making process. Further empirical studies are needed to understand different forms of influence deployed by experts to shape project strategies and the decision-making process, especially in diverse project environments i.e., complex and complicated contexts.

3.2.5 Gaps and Areas for Project Management Advancement

Understanding the external network of influential organisational elements, or shapers, can significantly shape project strategies and the decision-making process. By using any or all the external means of influence, an actor or group of actors can influence organisational project strategies and decision-making processes. Influencers can take many forms, restraining and enabling projects, presenting favourable and deceptive information. Basically, an internal organisation surrenders a significant proportion of its power as the external coalition of relational frameworks strengthens their power of influence (Mintzberg 1983). However, the literature review has identified that there are existing knowledge gaps in the concepts of economy or economic environment, social environment, politics, and expert knowledge for project policy implementation. There needs a deeper understanding of the macro– and micro-economic environment including the complexities of organisational (inter)actions that influence organisational strategic decision-making for project policy implementation. The normative and regulative influence of the social environment including the complexity of (inter)actions of organisational actors that influence project strategies and decision-making processes. Politics tends to be seen as corrosive on the implementation of project policies, which therefore, requires a deeper understanding of the informal and illegitimate behaviour, and the power of action of organisational actors on decision-making processes. Information from experts which is seen as a powerful mechanism to influence project strategies, tends to be strategically misrepresented by organisational actors who are also plagued with cognitive biases when making project decisions. See table 3-1 for the concepts, salient characteristics, gaps and areas for project management advancement.
Empirical studies to fill the gaps in the literature would deepen our understanding of key external factors that influence organisational strategies and the decision-making process on the implementation of project policies. This research study will address these gaps.

Table 3-1: Summary of Salient Theoretical Literature on External Factors that Influence Organisational Strategic Decision-Making on Project Policy Implementation

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Salient Characteristics</th>
<th>Gaps and Areas for Project Management Advancement</th>
</tr>
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</table>
| Economy or economic environment | • Intuition plays a significant role in shaping project strategy in an unstable environment, but negatively in a stable one  
• Macro- and micro-economic environment influences strategy and organisational strategic decision-making  
• Micro perspective involves complexities of organisational interactions that influence strategic outcomes  
• Middle-managers in project-based organisations play an essential role | Macro- and micro-economic environment including the triggers of organisational sensemaking and the complexities of (inter)actions that influence organisational strategies on the implementation of project policies. |
| Social environment   | • Stakeholders impose normative, regulative and coercive pressures to influence organisational practices and policy implementation  
• The more acts of influence by external stakeholders the greater the power of influence  
• Organisations need to create a strategy that fits with the influence of external stakeholder environments | Normative (or informal) and regulative (or formal) influence including the complexity of (inter)actions of stakeholders on organisational strategies for project policy implementation. |
<table>
<thead>
<tr>
<th>Concepts</th>
<th>Salient Characteristics</th>
<th>Gaps and Areas for Project Management Advancement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Politics</td>
<td>• Individual or group behaviour that is informal, divisive and illegitimate – sanctioned by either formal authority or accepted ideologies&lt;br&gt;• Power in action&lt;br&gt;• Stakeholders can simultaneously employ restraining and enabling influence on project policies&lt;br&gt;• Organisational actors tend to form external alliances to influence organisational strategies and decisions</td>
<td>Informal and illegitimate behaviour, enabling and constraining influences, and power in action of stakeholders influencing the implementation of project policies.</td>
</tr>
<tr>
<td>Expert knowledge</td>
<td>• Information is crucial to the decision-making process&lt;br&gt;• Powerful mechanism used by organisational actors to selectively influence decision-making&lt;br&gt;• External actors tend to present favourable and deceptive information&lt;br&gt;• Projects survive because the analysis of information may be biased or inadequate, and external actors form powers of coalition with internal actors&lt;br&gt;• Consultants tend to provide favourable information to obtain project funding&lt;br&gt;• Organisational actors tend to interpret and use information differently to shape the project decision-making process – strategic misrepresentation</td>
<td>Powerful mechanisms, and governance, including the use of information used by stakeholders to influence organisational strategies and the decision-making process including cognitive biases on the implementation of project policies.</td>
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</table>
3.3 Internal Environmental Factors of Influence

Similarly to the previous section, this section of the literature review will discuss internal environmental factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. In particular, power and politics, information and knowledge, and culture.

3.3.1 Power and Politics

Prior to exploring how power and politics influences internal organisational strategies and decision-making processes it is well worth exploring the concept of power. According to Allen (2003, p. 2) power is ‘not some ‘thing’ that moves and it does not traverse and transect places or communities, but it is a relational effect of social interaction.’ This concept of power is strongly advocated by a number of leading scholars (for example see Clegg 1989a, Clegg et al. 2006, Dahl 1957, Haugaard and Clegg 2009). Although there is plethora accounts of power (i.e., legitimate, illegitimate, manipulative, coercion, authoritative, collective, individual), the distinction of power to and power over has featured predominantly in the literature in the last few decades (Gohler 2009). These distinctions are explained by Gohler (2009, p. 28) as follows:

*Power over* means power over other people, enforcement of one’s own intentions over those of others, and is thus only conceivable in a social relation. *Power to*, on the other hand, is not related to other people. It is an ability to do or achieve something independent of others. It is not a social relation. This distinction corresponds to a different normative judgement of power. Exercising *power over* within a social relation always produces a negative result for those subjected to it, because it narrows their field of action. *Power to* is generally considered favourably. The reason for this is that *power to* is not directed at others, but at the individual or the group of actions themselves. [emphasis in original]

According to Gohler (2009) propositions of power, ‘power over’ is conceived as a vertical relationship (i.e., bureaucratic and rather formal in nature) by virtue of the structure of relations that is held over others, which strongly implies a relationship of domination and subordination where the capacities to act are not distributed symmetrically to all parties in a relationship (Allen 2003). Allen further states that because of the unequal distribution of power, the benefits tend to be skewed, which could be either a loss or gain. With the other proposition of power, ‘power to’ it is seen as transformative, or enabling, a collective and
integrative action, a ‘fluid’ medium, and more of a means to achieve outcomes (Allen 2003). Thus, this emphasis on understanding the relational space of power. With the concept of medium, Allen (2003) professes that it is about identifying power through the mobilisation and deployment of resources (i.e., economic, political, capital, people, ideological, informational, cultural, normative) to achieve outcomes. Resources can be either allocative, for example technology or access to finance, or authoritative, for example control over social life. Here resources are not possessed by individuals or organisations but are seen as a medium through which power is exercised and diffused, which takes place through networks of extensive and intensive social interactions. Furthermore, Allen (2003, p. 50) states that:

The most effective institutions in terms of power are those which encompass all four forms of organisational reach. An understanding that powerful institutions may enhance their means through extensive and intensive networks, combining both authoritative and diffused techniques of organisation to achieve far-flung goals.

This suggests, as implied by Jenkins (2009), that institutions can be seen as ‘power containers’ – able to draw on available resources as and when it is needed to achieve a means to an end. However, power still needs to be legitimately institutionalised to survive (see Arendt 1958, Giddens 1979, Mann 2012) especially from a cultural perspective (Engelstad 2009). Governance can also be seen as this, a medium to steer outcomes, which will be discussed in section 3.4 Governance and Policy Implementation.

Thus, the literature on power suggests that internal systems or networks of power have a strong influence on strategic decision-making (Allen 2003, Clegg et al. 2006, Eisenhardt and Iii 1988, Jarzabkowski 2008, Mintzberg 1983, Wilson 2003). Internal influencers with power include the chief executive officer, middle line managers, operators, analysts, and support staff (Mintzberg 1983). Organisational actors can also enhance their interests and obtain the most power by formal authority, control of formal decision processes and structures, control of scare resources, control of boundaries, control of technology, interpersonal alliances and networks, charisma and the ability to cope with uncertainty, symbolism, language and the management of meaning (Wilson 2003). This is especially highlighted in Clegg (2008) and deeply demonstrated by Flyvbjerg (1998) on the study of rationality and power. Furthermore, internal actors can manage the decision-making process so that their interests are protected and maximised (Eisenhardt and Iii 1988). Moreover, Mintzberg (1983, p. 111) states that internal influencers differ from external influencers in a number of significant ways:

They tend to have a serious commitment to the organisation by virtue of their dependence on its well-being; they come to know the organisation intimately, by virtue of the amount of time they spend there; and they are the ones who make the decisions and take the actions; the initiative rests with them; the external influencers must influence their behaviour.
It is clear that internal actors, vertical and horizontal, have significant power to influence organisational strategies and decision-making. Jarzabkowski (2008) conducted a seven-year study of top managers in three universities that revealed organisational strategy is shaped by three types of behaviour: interactive, procedural, and integrative strategising. Interactive strategising shapes strategy by influencing the meanings, power, and norms of a specific action; procedural strategising shapes strategy by administrative processes; and integrative shapes strategy by ongoing behaviour by interacting with actors about the meanings, power, and norms instantiated in administrative processes (Jarzabkowski 2008). This implies that organisations are political due to the diverse influence stakeholders have on shaping organisational strategy, which can be for the better or worse. Winter and Szczepanek (2009) argue that projects are political processes due to a number of aspects, namely, interests and agendas including hidden agendas, power and influence, political tactics, and attitudes to politics. Moreover, organisational actors tend to form powers of coalition to influence strategy when they lack power (Nutt 1999a, Tilly 2009). Brindle (1999) conducted an extensive literature review on the micro-processes of decision-making in organisational environments, or the most pervasive ‘games decision makers play.’ The review revealed that framing, criteria setting, misuse of analogy, misuse of rationality, and commitment building were the most common ‘games’ decision makers play to shape strategic decisions. This is also demonstrated by Flyvbjerg (1998) on the topics of rationality and power. Here he investigates an infrastructure project and the abuses of power, and the complex interplay between political power and technical rationality. Also, the paper argues that we cannot control the human nature behind decision-making, but we can learn and understand, and thus influence, common decision-making processes. This implies that organisational actors have significant power over the decision-making process, but awareness and understanding of decision-making processes raises our consciousness of the decision-making process, and thus ability to influence and make better decisions, which is also highly applicable to the implementation of public and project policies (Hill 2009).

It appears that whether power is used for good or evil, organisations require power, they require it to survive – it is oxygen to an organisation, imbedded within crucibles of organisational politics, but it can also achieve great things (Clegg et al. 2006).

The empirical literature focuses, limitedly, on power and politics to influence organisational strategic decision-making in pluralistic organisations. However, further research is need to understand the influence of power and politics on organisational strategic decision-making in socially dynamic project environments. Moreover, studies should consider the use of power by individual actors, especially in a hierarchical and horizontal structures and in different project environments. Such empirical studies would deepen our understanding of the influence power and politics plays in influencing organisational strategic decision-making in project environments beyond a typical organisational context or environment.
3.3.2 Information and Knowledge

A further feature that influences organisational strategies and the decision-making process is information and knowledge. This is a powerful feature, especially for actors with expert and professional knowledge as they have the ability to draw power away from organisations (Clegg et al. 2006, Mintzberg 1983). This is reinforced by Pfeffer (1992a, p. 248) assertion that ‘organisational actors ability to manipulate and present facts, and analysis is a critical element to exercise strategic power effectively.’ Shrivastava and Grant (1985) conducted an empirical study on the strategic decision-making processes and organisational learning of 32 business organisations facing complex environments that revealed knowledge sharing within organisations is influenced by a number of systems, namely, single person, informal personal networks of selected groups, shared values and culture norms, network of organisational working groups, divisional and departmental systems and procedures, and elaborate system of operating procedures and regulations. Lin and Huang (2010) came to similar conclusions on their quantitative study on factors that influence people withholding knowledge from their colleagues on project teams. Their study indicates that knowledge withholding is influenced by trust, distributive justice as well as team-related and personal outcome expectations. In addition, it has been found that organisational boundaries act effectively as ‘information envelopes, and the more valuable the information, the more likely organisational boundaries are used to limit its diffusion’ (Zuker et al. 1996, p. 91). This implies that trustworthiness has a significant influence on an organisational actor’s willingness to share knowledge with their fellow colleagues. This is especially important to the process of action, as agents mainly act on the basis of their tacit knowledge (Sydow 2006). This strongly suggests that organisational actors can influence the strategic decision-making process with their knowledge sharing systems, particularly, the ability to create, share and use strategic information with their environments. Similarly, Williams and Samset (2010) conducted a critical analysis on the importance of the front-end decision-making phase of projects that revealed organisational actors have the ability to influence the strategic decision-making process by restricting or omitting essential project information. Similarly, Nutt (1999a) conducted a study on 317 strategic decisions in the public, private, and third-sector organisations that indicated decision makers used subjective tactics, namely, omitting persuasive and compelling information to support a strategic choice. He also finds that some decision makers implemented judgmental tactics by using their powers of intuition, prior experience or knowledge, without supporting information to make strategic decisions. Sims (1993) argues that projects frequently fail due to misinformation. The paper suggests that the main categories of reasons of why people say they give misinformation are: lack of effort, timing factors, social niceties, self-defence, incompetence, and politicking. This implies that project teams are not taking misinformation seriously. The seriousness of misinformation in project environments is emphasised by the Victorian Auditor-General's Office (2011) report on the management of major road projects. The report findings include that state government agencies where misinformed on project costs, risks and benefits, thus giving decision makers false
confidence about the capacity to deliver road projects. Similarly, the National Audit Office (2011a) of the United Kingdom conducted a report on the lessons from the Private Finance Initiative (PFI) and other projects. The report reveals that public-sector bodies have limited in-house skills to make critical decisions on complex projects, and that inadequate data was responsible for making poor procurement decisions. The report also identifies that the Ministry of Defence made a poor procurement decision (appropriate degree of openness and transparency on the transfer of information and significant risk) to a contractor on the Future Strategic Tanker Aircraft PFI contract. This adversely affected value for money for many years into the future. In general, the literature views information and knowledge as a powerful factor to influence the strategic decision-making process. However, further empirical studies are needed to understand the salient features of information and knowledge that influence organisational strategic decision-making on project policies. Research is also needed on the influence of information and knowledge in different project contexts i.e., project alliances and partnerships that may influence project strategies and decision-making.

### 3.3.3 Culture

The culture of an organisation embodies the underlying assumptions of the strategic decision-making process (Wilson 2003). Johnson (1992) argues organisational strategies are configured within a cultural web of behaviours, rituals, stories, language and expressions, and symbols that bond organisational life. Such symbols can strengthen or corrode organisational relationships (Ashkanasy et al. 2014, Danielsson and Bodin 2009, Dutton and Heaphy 2003, Pratt and Rafaeli 2001). Moreover, Wilson (2003, p. 400) states that ‘strong cultures can be a potent source of competitive advantage since they allow decisions to be made that would be more difficult in other organisations with less cultural coherence.’ Andersen et al. (2009, p. 479) state that ‘projects are organisations within an organisation.’ Pfeffer (1992a, p. 279) asserts that:

> People are persuaded by reason, but moved by emotion. We exercise power and influence, when we do it successfully, through the subtle use of language, symbols, ceremonies, and settings that make people feel good about what they are doing.

This is particularly emphasised by Dutton and Heaphy (2003) who states that high-quality connections between organisational actors allows for strong and resilient interactions, while low-quality connections are corrosive and depletes the relationship strength. Such high-quality connections enrich organisational cultures and enable organisational actors to routinely influence and relate to one another (Pratt and Rafaeli 2001). The literature implies that organisational culture has a strong influence on the strategic decision-making process. Further, Andersen et al. (2009) conducted a study on the organisational culture and project management, and concluded that the behaviour of an individual is affected by the organisational culture including thinking, values, ideas, rules, standards, and procedures that govern decision-making. Hardy (1996) argues that strong cultural norms, traditions, and values have a strong influence on organisational strategy. This suggests that organisational ideologies have a significant influence on shaping the decision-
making process, especially for policy implementation where ideologies tend to be deeply ingrained within agency actor behaviours. Mintzberg (1983) argues that ideologies are developed through three stages: the rooting of an ideology in a sense of mission, the development of the ideology through traditions and sagas; and the reinforcement of the ideology through identifications. Furthermore, Brunsson (1982, p. 39) conducted a critical analysis on decisions, ideologies and organisational actions and suggests that ‘ideologies can be formed with the direct purpose of avoiding rational decision-making.’ Müller et al. (2009) conducted a research on cultural differences in decision-making styles in project teams composed of team members from different nationalities. The study revealed that there are differences in the decision-making style of cultural teams that can be grouped into three categories:

- General cultural differences (team orientation, flatter organisational hierarchies, informal work attitudes)
- Decision-making style differences (faster decision-making, clearer responsibilities, willingness to accept change)
- Decision-making process differences (transparency, formality, expertise)

They suggest that individual personalities, work processes and attitudes towards work were the main influential factors on decision-making style and speed. Implicitly, the report suggests that cultural differences on project teams can influence the decision-making process in different ways. Some project teams can be team driven and derive decisions based on collective action, and others on formalism where decisions are based on formal authority (Müller et al. 2009). It is also essential to point out that the decision-making style adopted and adapted by a project team will yield different speeds in the decision-making process. This implies that a project’s culture has a significant effect on the decision-making process. Sometimes organisational cultures can contribute to astronomical project disasters. For example, the report into the Fukushima nuclear accident (FNAIIC 2012) revealed that the regulators of the power plant had a negative attitude towards the importation of new advances in knowledge and technology from overseas, and were aware of the risks of a tsunami, but had not prepared any measures to lessen or eliminate the risks. The report also states that the operator and regulators either intentionally postponed safety measures, or made decisions based on their organisation’s self-interest and other cultural behaviours, and not in the interest of public safety. It is evident that organisational culture can embody and influence project strategies and the decision-making process. However, the literature is silent on the influence of different cultures, or sub-cultures, ideologies on project strategic decision-making. For example, the influence of group cultures on influencing project policy strategic decision-making – are individual or group ideologies more influential in shaping project policy strategic decision-making?
3.3.4 Gaps and Areas for Project Management Advancement

Understanding the internal network of influential organisational elements, or shapers, also can significantly influence organisational strategic decision-making on the implementation of project policies. By using power and politics to influence internal actors, restricting or omitting information, providing expert knowledge, embarrassing cultural ideologies, and working within a robust governance structure, organisational actors or a group of actors, can influence organisational project strategies and decision-making processes. However, the literature review has identified that there are existing knowledge gaps on the internal factors and drivers that influence organisational strategic decision-making on the implementation of project policies. These include the concepts of power and politics, information and knowledge, and culture. With power and politics there needs to be a deeper understanding of the relational effect of power including ‘power over’ and ‘power to’ on social (inter)actions and the political processes on organisational strategic decision-making on the implementation of project policies. Sharing of information and knowledge including the concept of trust and tactics used by organisational actors to influence organisational strategic decision-making. Finally, an understanding of the cultural web of organisational behaviours and its effects on organisational strategic decision-making for project policy implementation. See table 3-2 for the salient concepts, characteristics, gaps and areas for project management advancement. This research study will address these gaps in the literature.

Table 3-2: Summary of Salient Theoretical Literature on Internal Factors that Influence Organisational Strategic Decision-Making on Project Policy Implementation

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Salient Characteristics</th>
<th>Gaps and Areas for Project Management Advancement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power and politics</td>
<td>• Power is not some ‘thing’ but a relational effect on social interaction</td>
<td>The relational effect of power including ‘power to’ and ‘power over’ on social (inter)actions and the political processes of strategic decision-making on the implementation of project policies.</td>
</tr>
<tr>
<td></td>
<td>• Predominantly seen as ‘power to’ and ‘power over,’ and oxygen to organisational survival</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Institutions can be seen as ‘power containers’ to achieve means to an end but still needs to be legitimately institutionalised to survive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Vertical and horizontal actors have significant power to shape organisational strategies and the</td>
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Improving the Link between Project Management and Strategy to Optimise Project Success

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Salient Characteristics</th>
<th>Gaps and Areas for Project Management Advancement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information and knowledge</td>
<td>- Projects are political processes</td>
<td>Sharing of information and knowledge including the concept of trust and tactics used by organisational actors to influence strategic decision-making for project policy implementation.</td>
</tr>
<tr>
<td></td>
<td>- Actors with expert and professional knowledge have the ability to draw power away from organisations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Knowledge sharing is influenced by a number of mechanisms (i.e., formal and informal)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Trustworthiness has a significant influence on organisational actors to share information and knowledge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Decision makers tend to use subjective and judgmental tactics to support and make poor strategic decisions</td>
<td></td>
</tr>
<tr>
<td>Culture</td>
<td>- Embodies the underlying assumptions of the strategic decision-making process</td>
<td>Cultural web of organisational behaviours and its effects on organisational strategic decision-making on the implementation of project policies.</td>
</tr>
<tr>
<td></td>
<td>- Configured within a web of behaviours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Behaviours of individuals and decision-making processes are affected by organisational cultures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Project teams composed of three different cultural decision-making styles</td>
<td></td>
</tr>
</tbody>
</table>

3.4 Governance and Policy Implementation

3.4.1 Governance

The word governance is derived from the Latin word ‘gubernare’ which means ‘to steer’ (Oxford English Dictionary 2012). Governance originated from policy research in political science and today is used to
‘steer’ countries, corporations, operations, transactions, and projects (Müller 2012). It is a more inclusive term ‘concerned with creating the conditions for ordered rule and collective action, as opposed to ‘government,’ which refers to formal institutions of state and their monopoly of legitimate, coercive power’ (Milward and Provan 2000, p. 239). Here authorities tend to adopt a ‘command-and-control’ approach to governance (de Roo 2015). Furthermore, traditional literature on governance, or more so corporate governance, predominantly focuses on economic-value of organisations as a relationship of contracts, or a contractual approach to corporate governance (Fama and Jensen 1983, Fiss 2008, Jensen and Meckling 1976). Although there are various definitions of the concept of governance (for example see Hill and Hupe 2002b, Kooiman 1999), from a policy perspective:

Governance … is concerned with creating the conditions for ordered rules and collective action, often including agents in the private and nonprofits sectors, as well as within the public sector. The essence of governance is its focus on governing mechanisms – grants, contracts, agreements – that do not rest solely on the authority and sanctions of government (Milward and Provan 2000, p. 239).

Although it is seen as a complex matter i.e., non-linearity of the interactions between parties and emergent outcomes (Hill and Hupe 2002a, 2002b, Teisman et al. 2009a), a basic principal stands: agreements are made beforehand between parties on the nature of the transaction and its governance (ways of legitimately doing things) which tends to comply with each party’s individual corporate governance policy (Müller 2012). This strongly implies, as emphasised previously, an understanding of the relational actor space, or more specifically governing the relational actor space for the implementation of project policies. Furthermore, Müller (2012, p. 298) states that ‘corporate governance sets the boundaries for project governance, most simply in companies’ internal projects, more complex and potentially further restrained in projects with external parties. The boundaries for project governance are thereby set at the level of corporate governance.’ Among the large number of definitions of corporate governance, the Organization for Economic Cooperation and Development (OECD 2008, p. 103) one is often referenced and defined as:

Corporate governance involves a set of relationships between a company’s management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, the means of attaining those objectives and monitoring performance are determined.

This suggests that corporate governance tends to set the boundaries for project governance – a rather linear relationship. From a theoretical perspective this is questionable, as governance systems are complex and dynamic i.e., linear and non-linear, stable and non-stable (Milward and Provan 2000, Teisman et al. 2009a, Van Ees and Van Der Laan 2012) with elements of strategy and innovation (Clarke and Branson 2012). Furthermore, according to Fiss (2008), Teisman et al. (2009a) the basic elements of governance systems
are agents or actors i.e., individuals, formal or informal groups and organisations, which is considered to
be an institutional system. Such a school of thought is also advanced by Bekker (2015). Teisman et al.
(2009a, p. 6) also state that ‘human actors in social systems are reflexive: they respond, anticipate, plan,
think, forecast, etc.’ This suggests that there is a strong element of, and control thereof on human behaviour,
as actors have the capacity, or power, to implement and change the relational actor space – for the better or
worse.

Governance systems may be seen as an institutional system embedded with elements of complexity,
dynamism and change (or coevolution) over time (Fiss 2008, Teisman et al. 2009a). This requires a deeper
understanding of governance systems from a number of perspectives which are especially relevant to the
study of project governance and policy implementation, namely: agency theory, transaction cost economics,
stewardship theory, and trust and control (Biesenthal and Wilden 2014, Davis et al. 1997, Fanny and
have investigated the governance theme of stakeholder, or stakeholder theory, and argue that it is embedded
with normative foundations. These include, for example, stakeholder relationships established and
maintained on trust, cooperation, morality and ethical behaviour, but they also profess that it lacks sufficient
theoretical content and it continues to be debated amongst academic scholars on its characterisation

Governance from an ethical behaviour perspective requires a pattern of behaviour that links an appropriate
response (action) to either external direction (governance systems imposed by an organisation in response
to societal norms) or internal norms (governed by personal cultural and cognitive interpretation of what
seems to be the right thing to do under a given set of circumstances). Ethics and ethical dilemma resolution
provides the basis of linking governance, trust and action within a framework where individuals interpret
and act upon decisions (Müller et al. 2013). To better understand this dimension of ethically governed
action it is necessary to briefly discuss how ethics and governance may be seen to be logically linked.

3.4.2 Ethics and Governance

Duignan (2011, p. ix) state that ‘ethics is the philosophical study of morality. For most of its history, it has
been occupied with two main tasks: to discover what moral qualities such as right and wrong, good and bad
consist of – what it means to say that an action is right, that a thing or event is bad, and so on – and to
investigate certain broader questions regarding the nature and scope of morality and moral judgements.’
The author further states that this can be seen from a number of perspectives:
• Normative ethics: is concerned with the moral evaluation of human actions, institutions, and the ways of life. The central task is to ‘determine how basic moral standards, or norms, are justified and what basic norms there may be’ (2011, p. 1).

• Theoretical ethics (or ‘metaethics’): is concerned with determining the nature of moral concepts and judgements.

• Applied ethics: focuses on the application of normative ethical theories to practical problems such as environmental ethics, and the morality and legality of war.

However, an important question to answer, as stated by Walker et al. (2008a, p. 103), is: ‘Why should we consider ethics at all in business?’ Essentially, every organisational actor will be engaged in ethical decision-making which can have profound relational, social, economic and environmental effects (Hartman et al. 2014). Thus, harnessing of what is a ‘right’ or ‘wrong’ decision is absolutely essential for humanity, particularly within a project policy context which tends to have profound impacts on societies and the natural environment. Additionally, not every decision is covered by policies and rules, thus, more often than not, individuals must rely on personal values and principles when making decisions (Hartman et al. 2014). This brings another fundamental question to mind: How are personal values and principles ingrained in decision-making? The answer is in the conduct of human behaviour or normative ethics, both individually and collectively (Hartman et al. 2014), which ultimately influences the means-end relationship (Lawrence 1999). This suggests that normative ethics are socially constructed within the interactions of individuals, organisations and moral communities, or a legitimate institutionalised system of moral behaviours (Shadnam and Lawrence 2011). Such morality within an institutionalised system ‘originates from and is situated in everyday discourse’ (Shadnam and Lawrence 2011, p. 384). Such a process can be seen as institutional work, the process of sensemaking and sensegiving where organisational actors moral meanings materialise (Clegg et al. 2007, Shadnam and Lawrence 2011). Additionally, Shadnam and Lawrence (2011) state that moral collapse is more likely to occur with ideological and regulative breakdowns.

Such institutional work is also highly prevalent with the implementation of public policies where ethical decision-making is highly complex (Sullivan and Segers 2007). Government officials need to consider multiple factors and interests when making decisions, such as duty to professional norms, to conscience, to constituents, to the public interest, and humanity (Sullivan and Segers 2007). Such decisions are mostly seen from a consequentialist (or teleological) approach which focuses on securing the right outcome. With consequentialism, or the moral philosophy of consequentialism, the view is that ‘moral quality of an action – for example, the rightness of the action – is completely determined by the action’s consequences, relative to the consequences of alternative actions open to the agent’ (Driver 2012, p. 5, emphasis in original), which also be seen as utilitarian i.e., generate the greatest good for the greatest number (Bredillet 2014). However,
such decisions also contain elements of deontological and virtue ethics (Sullivan and Segers 2007). For example, with the implementation of a mega defence project e.g., a new submarine, which has profound consequences on society. Additionally, it acts as a deterrence of war but takes away billions from other government portfolios such as education and health (consequentialism), where politicians would report business cases honestly i.e., public consultation on cost-benefit analysis (deontological ethics), but maintain confidentiality on highly sensitive matters i.e., innovative research (virtue ethics). Such decision-making within a project context is also discussed by Helgadóttir (2008) where the results reveal that discussing ethics and implementing codes of conduct can have profound effects on ethical decision-making.

Considering that ethical decision-making by government officials is complex and contains shades of grey, where officials can justify means such as deception, manipulation and lying in pursuit of their ends, what is the best way to govern such behaviour? The answer to this may lie in understanding the complex network of relationships, or cross-sector social interactions (Seitanidi and Lindgreen 2010). Such cross-sector social interactions include cross-sector social partnerships with a focus on prospective sensemaking (Selsky and Parker 2010), institutional logics (Vurro et al. 2010), and collaborative strategic management (Clarke and Fuller 2010). A common theme in the articles is that the institutionalisation of partnerships has a profound effect on project values and outcomes (Seitanidi and Lindgreen 2010). Perhaps governments should adopt institutionalisation of ethical decision-making to eliminate deceptive and manipulative means to achieve their desired ends, and as a result, achieve better outcomes for society and the natural environment. Subsequently, this requires further exploration on the concepts of institutions and governance.

3.4.3 Institutions and Governance

Similar to corporate governance, the institutional tradition of studying organisations focuses on the themes of control and coordination, particularly the implicit and explicit relationships between corporation and stakeholders (Bradley et al. 1999, Fiss 2008). Fiss (2008) provides a deep understanding of sociological institutionalism of corporate governance by examining the diffusion of governance practices, variation of governance practices, governance and resistance, variety of groups with varying identities and interests, and a comparative study of governance systems. He sees governance models as ‘articulated systems of meaning that embody the moral order as they explain and justify the proper allocation of power and resources’ (2008, p. 391). Fiss (2008) sees power as a relational force (for example, see Clegg 1989b). This suggests that corporate governance systems are embedded and embodied within relational norms rather than the more traditional contractual mechanisms, which has the power to steer institutions or institutional actors. He further argues that the speed of governance diffusion is a ‘function of the number, interest, and relative power of agents within a given environment’ (2008, p. 395), which is also professed by a number of other scholars (Fligstein 1985, Marquette 1981). Although governance systems will encounter resistance, especially from powerful actors that actively influence the corporate environment for self-serving needs (Fiss 2008), Barker (1993), Dyer and Singh (1998) show that the normative elements of governance systems
make for more effective control than traditional and authoritative governance systems. This suggests that
the nature of relationships between organisational or institutional actors i.e., normative values, culture and
trust is of central importance when creating and maintaining governance systems, or the relational actor
space, which is especially important for the implementation of project and program policies in democratic
institutions and societies (Edelenbos et al. 2010a, Edelenbos et al. 2010b, Flyvbjerg 1998, Van Buuren et
al. 2012). The need for better institutional and governance arrangements is highly stressed by the Australian
report’s recommendations and findings, ‘institutional and governance arrangements for the provision of
much of Australia’s public infrastructure are deficient and are a major contributor to unsatisfactory
outcomes’ (Productivity Commission 2014, p. 39). Building a better governance and institutional
framework is an unequivocal and urgent task for governments (Productivity Commission 2014). This brings
us to the next topic of agency theory.

3.4.4 Agency Theory

Agency theory focuses on the contractual relationship between the principal and agent, where the principal
engages the agent to perform a service on his or her behalf (Eisenhardt 1989a, Jensen and Meckling 1976),
which is strongly rooted in bureaucracy (see Moe 1984, Niskanen 1975). The principal-agent relationship
is essentially a contract, which involves delegating some decision-making authority to the agent (Caers et
al. 2006), as the principal, especially in larger organisations, is bounded rationally and unable to engage in
all activities or tasks in a timely and effective way (Barney and Hesterly 2006). Furthermore, both agents
and principals seek to receive maximum utility from the relationship with the least possible expenditure
(Davis et al. 1997) with the agent being motivated to pursue his or her own goals (Caers et al. 2006,
Sundaramurthy and Lewis 2003). This implies that the principal must closely monitor the agent for potential
opportunistic behaviour, which in essence is a problem. Consequently, according to Müller (2012, p. 299),
and as emphasised by Barney and Hesterly (2006), the relationship between the principal and agent can
become problematic because:

- The interest of principal and agent will typically diverge if both are utility maximisers
- The principal cannot perfectly and costlessly monitor the actions of the agent
- The principal cannot perfectly and costlessly monitor and acquire the information available to or
  possessed by the agent

This problem is also stressed by Jones et al. (2006) for the implementation of public policies. Here they
raise the points that the principal cannot know a priori the exact qualifications of the agent. Thus the agent
may mislead his or her competencies to attain a contract (adverse selection), and secondly, the principal
lacks the necessary resources or ability to constantly monitor an agent (moral hazard), which therefore
requires the agent to induce compliance through incentives. Arrow (1985) equates moral hazard to hidden agendas and adverse selection to hidden information. So when the agent’s behaviour is not controlled or restrained, the goals of the principal are unlikely to be attained. Müller (2012) further emphasises the agency problem, as summarised by Moe (1995), as follows:

- The adverse selection problem: has the principal chosen the right agent?
- The moral hazard problem: will the agent always act in the best interest of the owner?

Thus the problem lies in information asymmetries in the principal-agent relationship, which most often is costly to create and maintain, however, according to Barney and Hesterly (2006) the basic mechanisms to resolve these problems is through monitoring and bonding. Monitoring involves observing the behaviour or performance of the agent, and bonding refers to penalising or rewarding the principal, which is specified in the contract between the principal and agent. However, close monitoring of agent behaviour could be interpreted as an expression of distrust which violates a norm of reciprocity (Dickinson and Villeval 2008), and designing performance incentives is highly complicated and may signal mistrust, and designing ones that are both useful and strong is extremely difficult (Foss and Stea 2014, Pepper and Gore 2015, Roberts 2010). Furthermore, according to Lavikka et al. (2015), Turner (2004) contracts, especially complex project contracts, are always incomplete because of humans’ bounded rationality, which therefore opens-up the door for agent opportunistic behaviour. Unsurprisingly, these problems can be seen as Machiavellianism (Heath 2009).

As empirically shown by Harrison and Harrell (1993), when adverse selection exists, managers who initiated a project and are held responsible for it success or failure will tend to continue that project. This implies that adverse selection may influence a manager’s project strategic decision-making including the continuation of a detrimental project. The results also indicate that agents may be inclined to continue projects that maximise their self-interest at the expense of their principals. However, when the conditions associated with adverse selection are not present, people tend to make decisions that are in the best interests of their principal. Another governance mechanism to deal with agent opportunism associated with adverse selection is to provide principals with information to verify agents’ behaviour – this should discourage opportunism because the agents will realise that they cannot deceive the principals. The second way, as stated by Eisenhardt (1989a, p. 60), is to provide agents with outcome-based contracts that will ‘coalign with the preferences of the agents with those of the principal because the rewards for both depend on the same actions, and, therefore, the conflicts of self-interest between principal and agent are reduced.’ Although the author’s study on agency theory makes contributions to organisational theory, she recommendations further studies should focus on the variables of information systems, outcome uncertainty and risk; expand into richer and more complex contexts, such as organisational behaviour that relates to
information asymmetry in partnerships, and different outcome contacts in a plural organisational environment. For example, executives usually are compensated differently from project managers.

Scholars when considering the difficulties and high risks of the principal-agent relationship, especially in project environments, have suggested alternative or new versions of agency theory, such as ‘behavioural agency theory’ (Pepper and Gore 2013, 2015), which was first advanced by Wiseman and Gomez-Mejia (1998). Another version of agency theory is ‘theory of the agent’s mind’ or ToM (Foss and Stea 2014) which links up with Wiseman and Gomez-Mejia (1998) ‘behavioural agency theory.’ Behavioural agency theory assumes ‘bounded rationality and recognises the importance of agents’ human capital i.e., a function of ability and work motivation. This allows for departures from the rational choice model when it comes to loss, risk and uncertainty aversion, time discounting, inequity aversion, and the trade-off between intrinsic and extrinsic motivation’ (Pepper and Gore 2015, p. 1048). It focuses on the behaviours, interests, and actions of agents with links to leadership and strategy including mission statements. While theory of agent’s mind is more general and focuses on examining the implications for information policy and incentive design and management, for example, the ability to read the desires, intentions, knowledge and beliefs of other people to increase value in the relation (Foss and Stea 2014). In order to understand this theory, Foss and Stea (2014) conceptualise it with a map of various possibilities regarding the principal’s and the agent’s theory of the mind, see figure 3-1.

![Figure 3-1: ToM with Various Possibilities. Figure by Foss and Stea (2014, p. 109).](image-url)

Obviously, the best fit would be where both the principal and agent have a high ToM: joint value creation. Here the agent gets the best reward system in a way which reduces informational asymmetries with the principal. However, some of the limitations of this theory are the organisational context, especially sensitivity to organisational sensemaking instruments such as vision and mission statements; the cost of a ToM i.e., cost for a principal to create a relation with a new agent; and, the variability of an environment...
i.e., fast-moving versus slow-moving environments or national firms versus multinational corporations which have different characteristics.

### 3.4.5 Transaction Cost Economics

Closely related to agency theory, transaction cost economics focus on the cost of check and balance mechanisms, such as internal and external auditing, information disclosure, and risk analysis (Tricker 2012). Transaction cost economics, like agency theory assumes that agents act in their own best interests, but not necessarily in those of the principals. According to Biesenthal and Wilden (2014), Müller (2009), as outlined by Williamson (1979), the main drivers of transaction costs are: contingency factors (e.g., frequency and asset specificity), behavioural factors (e.g., bounded rationality and opportunism), and context (i.e., institutional context). It also focuses on governance structures and mechanisms, whereas agency theory focuses on contracts, which constitutes the governance structure of the relationship (Müller 2012). This is perhaps because of the ‘complexity of the relationship of actors within and among organisations and the impossibility of developing and agreeing on contracts comprehensive enough to structure the relationship in an all-comprehensive manner’ (Müller 2012, p. 302). Basically, it focuses on how organisations choose governance structures with economising on transaction costs being the main purpose of economic institutions.

This brings to mind a number of questions: What about the applicability of transaction cost economics in public and private sectors and the integration or coexistence of organisations for extended periods of time? Is there a difference? According to Dagdeviren and Robertson (2016) the public-private arm remains problematic based on their three pillar assessments, which focuses on Oliver Williamson’s transaction cost theory analysis in relation to the governance structures of public sector transactions. Firstly, transaction cost economics is limited as an instrument for prediction and decision-making due to its application, which results in *ex post* justification of governance forms. Secondly, there is no evidence that transaction costs are systematically higher or incentives systematically lower under public governance. Finally, transaction cost economics tends to ignore political interest. Their critical assessment is especially relevant from a project perspective, as it focuses on the public-private dilemma by examining water and sanitation services, which shows relevance for PPPs and other joint venture projects.

From an integration or coexistence perspective, Chiles and McMackin (1996) argue that incorporating risk and trust into the transaction cost theory paradigm enhances the explanatory and predictive power of the theory with minimal loss of parsimony. This implies that governing the relational actor space based on informal mechanisms, such as norms and morality, constrains opportunistic behaviour, increases information disclosure, decreases transaction costs i.e., creating and maintaining contracts, and complexity. They further argue that ‘there are several different levels of asset specificity at which firms will change
their preferred governance structure from market to hierarch, depending on the joint effects of risk and trust’ (1996, p. 92). This implies that a strong governing relationship based on joint or alliancing attributes may improve governance performance. Chen et al. (2013) undertook a study examining the relationship between transaction attributes and transaction costs in 88 alliancing projects in Australia. Their focus on complex, long-duration and high-value construction transactions revealed that uncertainty, project value and asset specificity (i.e., physical and immaterial resources) increases set-up costs, monitoring costs and enforcement costs in construction alliances. However, their study has significant limitations including the examination of trust and risk in project alliancing, which according to Chiles and McMackin (1996) can significantly decrease transaction costs and increase the alliancing partnership for the better. This is also reinforced by Winch (2001) who presented a conceptual framework for understanding the governance of construction project processes, drawing on transaction cost economics. He stresses that an important aspect of transaction governance choice is the level of trust between the principal and agent. He also suggests that trust is developed between repeat transactions, and that the prospect for further transaction will preclude opportunism. The theory of trust and control will be discussed in section 3.4.7 Trust and Control.

### 3.4.6 Stewardship Theory

With stewardship theory individuals in organisations are seen as stewards where their decisions act in the organisation’s best interest and which is based on trust, and they do not inevitably act in a way that maximises their own personal interests (Caers et al. 2006, Davis et al. 1997, Tricker 2012). It is a collaborative, collective and non-economic approach, where stewards behave in ways that are consistent with organisational objectives, making their behaviour completely rational (Encyclopedia of Management Theory 2013). Here there is a high level of principal-steward relationship, which is mutually supportive, in contrast, to the principal-agent relationship(s), which is mutually distrusting (Müller 2012). Davis et al. (1997) conducted an extensive review on the differences between agency theory(ies) and stewardship theory of management. They reviewed factors such as psychological (i.e., motivation, identification, use of power) and situational (i.e., management philosophy, culture, power distance) which revealed that a stewardship relationship is a better governance mechanism, especially for joint utility. Stewardship also enables actors to define and accept an organisation’s vision, mission and objectives. However, the implementation of this relationship depends on the risk and trust phenomena. Furthermore, formal governance mechanisms, such as cost-benefit analysis which is used extensively for mega project decision-making (see Vickerman 2007, Vickerman 2008) tend to incorporate an agency relationship (i.e., individualistic, self-serving behaviour, extrinsic motivation, coercive power) (Davis et al. 1997). From a government department and agency perspective for the implementation of policy, Schillemans (2013) argue that stewardship can enrich principal-agency relationships with more potions of stewardship. This includes a focus on selection, preferences, procedures, incentives, and monitoring which is in line with stewardship principals. They also argue that elements from both perspectives could be combined to improve relations,
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as could leadership that fosters productive working relationships. This is also reinforced by Mills and Keast (2009) who explored better ways to achieve stewardship of major infrastructure assets through configuration of governance arrangements utilising stewardship theory. They conclude that there is potential for principal-agent models to be developed that mix the emerging organisational and contractual forms of governance, which focuses on the complex and dynamic relationships between actors. Although relational contracts have been assessed for infrastructure projects (see Grimshaw et al. 2002, Keast et al. 2005, Walker and Jacobsson 2014) they provide little evidence of project action-based organisations forming strong relational bonds and best project practices. Actually, some of the case studies show signs of Machiavellianism. However, Walker and Jacobsson (2014) study did provide evidence that it is possible to design alliance relations (e.g., principals of stewardship theory) within PPPs for mega and complex projects, but argue there needs to be clear and compelling reasons for its implementation. This suggests that significant investment needs to focus towards understanding the informal mechanisms (i.e., norms, trust, values, culture, power-to) for governing the relational actor space (i.e., complex interactions) for the implementation of project policies. Similarly, Sundaramurthy and Lewis (2003) provide an integrative picture of agency and stewardship theories by focusing on the control and collaboration paradoxes of governance. They hypothesis and highlight that governance needs both control structures and collaborative structures. In particular, they suggest that organisations with a history of high performance and a strong emphasis on collaboration or control tend to foster strategic persistence, but when performance declines, these organisations tend to experience decline. When it comes to managing control and collaboration, they suggest that encouraging trust in others’ capabilities, distrust of human limitations, and cognitive (task related) conflict among governance actors helps manage control and collaboration. Within a context of diversity and shared understanding they suggest that diversity enriches decision-making, whilst shared understanding encourages mutual trust and enhanced interactions, which also helps manage control and collaboration. This brings us to the next topic of trust and control.

3.4.7 Trust and Control

What the literature so far strongly implies is that trust and control, especially between the principal and agent, are essential governance mechanisms. Subsequently, this requires a deeper analysis of the relation between trust and control in governing relations. Trust is a ‘psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another’ (Dietz et al. 2010, p. 10) that exists at multilevels (i.e., personal, team, organisational, institutional, interorganisational, international) (Das and Teng 2001, Fulmer and Gelfand 2012, Woolthuis et al. 2005) with different sources (i.e., competence-based, goodwill, cognition-based, and affect-based trust) (Edelenbos and Eshuis 2009, Levin 2008). Perhaps a better and more ‘realistic’ view of trust is ‘the expectation that a partner will not engage in opportunistic behaviour, even in the face of opportunities and incentives for opportunism, irrespective of the ability to monitor and control that party’ (Woolthuis et al. 2005).
This implies that trust relies on the ability of actors to engage in meaningful interactions in the first place, as emphasised by Mollering (2006). However, and it must be highly stressed that ‘actors, collective and corporate included, can always act otherwise, no matter how precise the rule or coercive the situation is. Even a well-established collectively held trust orientation towards the partner organisation may rapidly turn into a non-trusting or even a disrupting attitude and behaviour’ (Sydow 2006, p. 383). Furthermore, Mollering (2006) states, that being so, the social institutions that embody the rules for interaction (i.e., legislation, associations, standards) are the basis for trust and trustful relations. This is applicable to changes in the structure of societies, organisations and relationships (i.e., complexity and uncertainty of interactions) which has placed trust, as an alternative governance mechanism, and control on the organisational research agenda (Bijlsma-Frankema and Woolthuis 2005, Dietz et al. 2010, Teisman et al. 2009a). This is especially prevalent in strategic alliances which is recognised as grounds for opportunistic behaviour (see Chao 2011, Das and Bing-Sheng 1998, Das and Teng 2001).

How do human actors gain trust, such as institutional-based trust, and prevent opportunistic behaviour? According to Ostrom (2003) this relies on the relationship between trust, reciprocity and reputation. Trust includes the expectations that individuals have about others’ behaviour, with reciprocity it depends on the norms that individuals learn from socialisation and life’s experiences, and reputation is about the identities that individuals create that project their intentions and norms. This is more succinctly described by Greenwood and Buren III (2010, p. 426):

> Trust is the reliance by one person, group, or firm, upon a voluntarily accepted duty on part of another person, group or firm, to act in a manner that is ethically justifiable; that is, undertake morally correct decisions and actions based upon ethical principles of analysis towards all others engaged in a joint endeavour or economic exchange.

This implies that a trusting party is left vulnerable to and dependent upon the uncertain actions of the trusted party. That being so, as rather implied previously, repeated face-to-face communication, or as otherwise known as interaction-based trust (see Bachmann and Inkpen 2011), can have a major effect on trust i.e., increase or decrease its effectiveness, and strengthen organisational relationships (Stephens et al. 2012). Advancing this point, according to Fulmer and Gelfand (2012), face-to-face interactions increase interpersonal trust compared to online or phone communication. This is based on the assertions that humans are intrinsically social and have a need to belong, connections between individuals are dynamic and change (i.e., thinking, feeling and behaving), and performing work in organisations is through social processes (Stephens et al. 2012). Ostrom (2003, p. 51) further states that ‘with a chance to see and talk with others repeatedly, a participant can assess whether he or she trusts other sufficiently to try to reach a simple contingent agreement regarding the level of joint effort and its allocation.’ This is also professed by Law (1994, p. 182) who states that ‘in face-to-face interaction it is relatively difficult to put on a concealing
performance as the body gives off many signals. In complex and uncertain environments that require collective action to achieve beneficial outcomes (e.g., major infrastructure projects and programs), developing institutions and linking exogenous variables through endogenous processes to the core set of relationships is critical for successful mutually beneficial outcomes (Ostrom 2003). This implies that creating and maintaining relationships based on trust, reciprocity and reputation (or identity) is an effortful process. However, it does have some implications including groups sometimes tend to fail to achieve mutually beneficial outcomes, monitoring and sanctioning of rules, ethical decision-making especially with cost-benefit analysis, and institutional arrangements including alliances, which tend to affect the behaviour of actors towards collective action. This makes it rather difficult to establish and deeply imbed the ‘rules of the game’ with divergent (i.e., inter- and intra-organisational) actors. Consequently, this requires a deeper understanding of the relationship of trust and control from an institutional context. This can also be seen as a level of abstractness where collective identities form (Ashforth et al. 2011).

Trust within an institutional framework (i.e., societal and organisational structures) is essential as trust-based relations are sustained by institutional mechanisms (Bijlsma-Frankema and Woolthuis 2005, Fuglsang and Jagd 2015, Mollering 2005). This is further professed by Bachmann and Inkpen (2011, p. 285) who state that institutional-based trust, or more so institutions, helps establish a ‘world-in-common’ i.e., tacit and explicit knowledge diffusion, and in these circumstances:

An individual or collective actor finds good reasons to trust another actor, individual or collective, because institutional arrangements are, like a personal third party guarantor, capable of reducing the risk that a trustee will behave untrustworthily, allowing the trustor to actually make a leap of faith and invest trust in a relationship. [emphasis in original]

This implies that institutions can be seen as a pre-existing ‘third’ actor, acting between and governing the behaviour of individuals and organisational actors. This brings to mind a question: that being the case, how do institutional arrangements get embedded into individual and organisational decisions and interactions? According to Bachmann and Inkpen (2011, p. 288), this occurs through two principal ways:

- Institutions may find access into potential trustors’ behaviour in that they lend meaning to the circumstances in which the actors are embedded before any relationship is built. This is to say that the actors’ behavioural antecedents can be influenced and thus lead to a (potential) trustor’s decision to invest in a relationship.
- The antecedent behaviour as observed from a potential trustor’s point of view might not be the direct target of institutional influences. Rather, institutions influence the patterns of how trustors and trustees interact when they start to actively establish a business relationship.
The authors further state that the two principals are not mutually exclusive, but work both ways to manage inherent risk in a relationship. This can be achieved through four mechanisms:

1. Legal provision (i.e., legal rules which is seen as a relatively weak formal institutional mechanism from a common-law perspective but beneficial in shaping relationships)
2. Corporate reputation (i.e., informal behavioural patterns of an individual or firm)
3. Certification of exchange partners (i.e., program guidelines and norms of professional groups, and standardised industry procedures)
4. Community norms, structures and procedures (i.e., legitimised behavioural norms between actors)

Such mechanisms have different effects on building trust in inter-organisational relationships. Formal institutions i.e., law and certification, tend to be most important in the early stages of a relationship and for swift trust, reputation tends to favour low asset specificity, and community norms, structures and procedures tends to favour mature industries. In addition, Dowell et al. (2015) conducted a study on the changing importance of affective trust and cognitive trust across the relationship cycle. Their study revealed that in the early phase of a relationship lifecycle, integrity trust (i.e., adherence and conforming to rule systems including norms) was the main driver of relationship performance, and in the mature phase competency trust (i.e., a person’s ability to complete a task) has the largest effect on performance. Their study also stresses that emotions and affective trust alter over time, which includes the ability to reflect on past actions in relationships, maturity of individuals as well as external elements such as the economic environment. What these studies suggest is that an institutional framework is an imperative framework when dealing with complexity, especially through the mechanisms of trust and control (see Edelenbos and Eshuis 2009, Müller 2012). In addition, an institutional governance framework can be seen from a number of perspectives:

- Formal (i.e., contracts, regulations, policies, procedures, etc.), and informal (i.e., trust, norms, values, morals, etc.) (Bijlsma-Frankema and Woolthuis 2005, Edelenbos and Eshuis 2009, Eisenhardt 1985)
- Macro (i.e., norms and values embedded by groups) which is also seen as ‘thin’ trust, and a micro (i.e., empathy and identification developed in specific relations) which is referred as ‘thick’ trust (Fuglsang and Jagd 2015, Woolthuis et al. 2005)

Formal control also tends to be based on specification and codification ex ante, while informal control is not (Bijlsma-Frankema and Woolthuis 2005). Other dilemmas of formal control are that it is impossible to specify and codify everything, specifying and enforcing rules can be extremely costly and time consuming and sometimes impossible to enforce especially for international relationships, intangible resources are hard to codify and specify, and to effectively protect against and penalise opportunistic behaviour requires a
suitable juridical structure (Bijlsma-Frankema and Woolthuis 2005, Vlaar et al. 2006). This implies that trust seems to be a superior governance mechanism, especially in agency relationships, which according to Chen (2000), Eckel and Wilson (2003) can also be seen as more efficient and effective.

Furthermore, because formal agreements are not followed word-by-word but ‘more to the goals and intentions, trust-based relationships provide more room for the openness, creativity and flexibility which is needed to make relationships successful’ (Bijlsma-Frankema and Woolthuis 2005, p. 5). This is especially critical for the implementation of project and program policies, i.e., PPPs (Verhoest et al. 2015), where projects have been and tend to be managed by competitive mentality (i.e., tighter contracts) rather than partnership mentality, which leads to mistrust between parties (Heino et al. 2015, emphasis added). Furthermore, according to Heino et al. (2015) assessment for successful PPPs, a partnership based on trust encourages sustainable relations and allows for innovation and flexibility. However, considering the changing nature of environments (i.e., lack of shared formal and informal institutions, different cultures and sub-cultures, large geographical distances, intangible resources, fast moving technology and economies, virtual relationships, etc.) trust is becoming more important and problematic (Alnsour 2014, Bergiel et al. 2008, Bijlsma-Frankema and Woolthuis 2005). This begs the question: How are actors supposed to create and maintain ‘robust’ relationships when formal control and trust are so fragile? How about in project environments? Can actors, as described by Eckel and Wilson (2003), rely on facial expressions, body language, and the tone of voice for trustworthy cues? The answer may lie in understanding the concept of swift trust and temporary groups (Meyerson et al. 1996), such as project-based organisations, project-supported organisations, or project networks (Lundin et al. 2015).

According to Meyerson et al. (1996, p. 191), swift trust in temporary groups requires ‘an artful approach, making do with a modest set of general cues from which inferences are drawn about how people might care for what we entrust to them.’ It requires a collective perception and strong relations that is capable of managing issues of vulnerability, risk and expectations (Meyerson et al. 1996). Although they conclude that swift trust is less about relating than doing, this is questionable, as it implies that team members just ‘jump into trusting relations’ in non-routine situations, which rather undermines the ‘reality’ of most temporary teams i.e., repeated interactions between actors to achieve effective outcomes. Surely, repeated interactions, ex post trust, will increase the speed of swift trust, and vice versa. What about the theory on institutional-based trust? Surely, there would be constraints on achieving swift trust, especially for the implementation of PPPs where decisions tend to also be driven by politicians and public values (Flinders 2005, McAdam et al. 2010, Willems and Van Dooren 2016). This is where an informal psychological contract or informal sensemaking, prior to commitment of a formal contract, has advantages as it ‘binds’ elements of a quasi-moral involvement amongst parties (Hoezen et al. 2012), which strongly aligns with institutional-based trust. However, some scholars also argue that swift trust is fragile and diminishes
quickly in temporary teams (Harrison et al. 1997, Jarvenpaa et al. 1998). Arguably, it appears that the front-end phase of projects is crucial in terms of creating and sustaining trust in temporary teams, which according to Heino et al. (2015), Hodge et al. (2010) is crucial as outsourcing of government operations via partnership models will increase in the future. Contracts here can be seen as the start of relationships and as creating relationships, since it governs organisational actor interactions (Camen et al. 2011). Such situations are strongly aligned with institutional-based trust (see Bachmann and Inkpen 2011). Now this brings to light another vital question: How is trust related to control (i.e., formal governance mechanisms such as contracts, legislation, regulations, etc.)? Are they seen as substitutes or as complements, or both? Does a contract precede trust or does it follow it? And how does it effect relationships and performance? Also, how does a project manager choose an appropriate governance framework, especially considering the complexity of relations, risks, uncertainty and costs associated for the implementation of project and program policies?

Although heavily debated in the literature (see Woolthuis et al. 2005), most scholars see trust and control as complements or coexisting (Bachmann 2001, Das and Bing-Sheng 1998, Das and Teng 2001, Edelenbos and Eshuis 2009, Luhmann 1979, Puranam and Vanneste 2009, Sundaramurthy and Lewis 2003), especially in environments of complexity, uncertainty and volatility (Das and Bing-Sheng 1998, Das and Teng 2001, Puranam and Vanneste 2009), and with the implementation of infrastructure project policies (Camen et al. 2011, Hoezen et al. 2012). Puranam and Vanneste (2009) undertook a thorough analysis of the relationship between trust and governance which revealed the following: governance mechanisms may crowd out trust because the reliance on governance (e.g., contracts with the use of coercion or the threat of sanctions) may be seen as a signal of distrust, and the signal of distrust may be stronger if it is common practice to not use any governance mechanism. For example, certain government agents rely on handshakes or memorandum of understandings rather than lengthy written agreements to close deals. Insisting on a formal governance mechanism in such instances can rapidly crowd out trust. Also, an indirect crowding out effect (i.e., where governance mechanisms reduce the build-up of trust into an exchange relationship) of trust could transpire when trust development is hampered because of the attribution of trustworthy behaviour to the contract. Trust also tends to complement governance mechanisms when it is impossible to specify all contingencies ex ante. Furthermore, trust complements agreements with nonenforceable clauses which are upheld in the relationship and thus enhance the exchange performance. This is especially crucial in project partnerships and alliances when the need for coordination between exchange partners’ is high. Although Puranam and Vanneste (2009) analysis lacks empirical evidence and has limitations, it does encourage empirical progress to further untangle the complex web between trust and governance, and provide project managers a simple understanding of the complements and substitutes dilemma that obscures the implementation of governance mechanisms.
It appears from the literature, the reliance on a complementary, coevolution or hybrid form of a governance mechanism (i.e., formal and informal) is crucial for the implementation of project and program policies, such as PPPs and other alliances (see also Edelenbos and Eshuis 2009, 2012, Inkpen and Currall 2004, Klijn et al. 2008, Klijn and Snellen 2009, Woolthuis et al. 2005), especially in institutional structures with multiple actors with competing interests. It is a ‘reciprocal influence that changes the behaviour of the interacting entities’ (which can be either individuals, groups, organisations, economies, society, and so on)’ (Mitleton-Kelly 2015, p. 114, emphasis in original). Here project managers must deal with the complex interplay between trust and control, including the intrinsic and extrinsic motivation of actors, to achieve project policy outcomes. According to Edelenbos and Eshuis (2009, 2012) this requires a symbiotic coevolution (or mutual reinforcing relationship) approach which is an ongoing process of adjustments and reciprocal selection between trust and control. They also argue, as does Bijlsma-Frankema and Woolthuis (2005) in their empirical investigation, that partially written contracts (formal governance mechanism) facilitates the development of trust in institutional arrangements and personal relationships (i.e., positive ambience), as it limits opportunistic behaviour, enables actors to diffuse and share information in a more timely and accurate matter, signal problems earlier, and actors collectively solve problems. This is further evidenced in Walker and Lloyd-Walker (2014) empirical study on the ambience of project alliance in Australia, which concluded that ambience i.e., environment where trust and transparency values dominate, is valued in project alliances as it encourages collegiality, trust and commitment. However, when dealing with complexity, uncertainty and risk, especially for the implementation of project policies, project managers should place a contract in its social context and within the dynamics of relationship development (Edelenbos and Eshuis 2009, Woolthuis et al. 2005) including ethical dilemmas (Müller et al. 2013), which is essential in the development of project governance frameworks (Klakegg et al. 2008). According to Vlaar et al. (2006) such formalisation of a contract has a curvilinear relationship and can be seen as a ‘double-edged sword.’ It can assist with the establishment and maintenance of relationships offering a collaborative environment for joint action, or it can turn into formalism, cause rigidity, a loss of creativity and flexibility, and diminish trust.

However, one of the major dilemmas of control is its illusion, or more specifically the illusion of control (Brown 2004, Vlaar et al. 2006), which has been linked to power (Fast and Chen 2009) and tends to occur from managers ‘believing that their assumptions concerning measurability, communication, and compliance are actually in use throughout an organisation’ (Dermer and Lucas 1986, p. 471). Also, from this perspective, ‘people’s judgments of control are influenced by subjective needs related with the maintenance and enhancement of their self-esteem’ (Yarritu et al. 2014, p. 38). This implies self-esteem or personal involvement is a main factor that may contribute to the illusion of control. To understand if personal involvement contributes to the illusion of control, Yarritu et al. (2014) conducted an empirical study on the personal involvement of participants in trying to obtain desired outcomes, which revealed that
people acting more often to obtain a desired outcome developed stronger illusions. They further argue that people’s self-esteem must be at risk for the illusion to occur (see also Thompson 1999, Thompson et al. 1998). Other factors that contribute to the illusion of control to obtain outcomes is when people focus on successes (Thompson 1999). Here people focus on success, or success-focused tasks, rather than failures to achieve desired outcomes, which leads actors to overestimate the connection between their action and the successful outcome (Thompson 1999). According to Thompson (1999, p. 189) they do this because ‘compared with tasks focusing on failure, success-oriented tasks produce more instances in which actors actions are followed by the desired outcome and because these types of tasks direct attention to success, and vice versa.’ This can also be seen as positive illusions (Matute and Blanco 2014) and overconfidence in decision-making especially among the powerful (Fast and Chen 2009, Fast et al. 2012). With overconfidence in decision-making, the Fast et al. (2012) study showed that power (i.e., powerful decision makers) increases overconfidence in decision-making, which is driven by a sense of power, and that power can harm performance on tasks that require careful deliberation and accuracy.

Considering high level cognitive biases (e.g., delusions, illusions, deceptions, optimism, strategic misrepresentation, overconfidence) in decision-making is common for the implementation of major project policies, which may be seen as the desired outcome (for example see Flyvbjerg 2008a, 2009a, Flyvbjerg et al. 2009, National Audit Office 2011b), how are project managers supposed to reduce the illusion of control, or alleviate cognitive biases, and achieve better project policy outcomes? According to Matute and Blanco (2014) and Blanco and Matute (2015) it can be achieved in a number of ways. With illusions of control, one strategy consists of warning people that desired outcomes might have alternative causes, other than participants’ actions (Matute and Blanco 2014). The other strategy focuses on to prevent an undesired outcome before it occurs. Here, Blanco and Matute (2015) conclude that the illusion of control appeared in preventive scenarios when the probability of the to-be-prevented outcome was low. This implies that an illusion will be weaker when the probability of the cause is low. Another mechanism to reduce illusions which is strongly advocated by Matute et al. (2015) is to teach people how to make better use of educational strategies or scientific thinking i.e., illusion of the cause and effect relationship with a desired outcome. For example, do success-orientated tasks lead to successful outcomes? By developing an educational strategy and questioning the cause-effect relationship with the desired outcome, people will be able to reduce illusions and produce better outcomes (Matute et al. 2015). However, a major drawback with this mechanism is that people can see cognitive biases in other people but are terrible at recognising their own biases (Matute et al. 2015), which tends to create an illusion of validity (Kahneman 2011). However, Kahneman (2011, p. 217) suggests that ‘illusions of validity are supported by powerful professional cultures.’ Overconfidence in decision-making by powerful individuals, can be contributed to motivational and non-motivational factors (Merkle and Weber 2011). With motivational factors, positive illusions contribute to mental health and well-being, which foster self-esteem and enhance the motivation to act, and
non-motivational factors can be contributed to selective recruitment of information, focalism, and egocentrism (Merkle and Weber 2011). Mechanisms to combat overconfidence in decision-making includes mitigating the effects of power through decentralising decisions, minimising the likelihood of high power individuals experiencing feelings of competitiveness with advisors, and creating organisational cultures that encourage the sharing of information where leaders are also rewarded for seeking and integrating the perspectives of others (Tost et al. 2012). What the literature suggests is that changing organisational culture, and actors’ perception of organisational or project reality, may alleviate cognitive biases and increase the achievement of project policy strategies and benefits.

### 3.4.8 Project Governance

There is evidence that the principles of agency theory for the implementation of project policies, especially PPPs, dates back to the fourth century BC (Productivity Commission 2014). Here a consortia of city-states in Lebadeia, Greece, partnered with private contractors to build the Temple of Zeus Basileus in 338 BC, which remains unfinished (Hayward 2015). The project management literature tends to view project governance as either external to any specific project or internal to a specific project (Ahola et al. 2014).

According to Ahola et al. (2014), with project governance as external to any specific project, projects are subjected to governance mechanisms by their private or government owners which emphasises a project-parent relationship (i.e., principle-agent relationship, risk of opportunistic behaviour, implementation of standard policies, procedures, practices, and monitoring mechanisms). With project governance, as internal to a specific project, which majority of the project governance literature tends to focus on, project governance is subjected to governance mechanisms to meet the goals and expectations of various stakeholders with a focus on projects-in-context (i.e., project is a powerful actor, shared goals and control mechanisms, joint governance structure with parent and external contingencies), see figure 3-2. However, Ahola et al. (2014) investigation also revealed, as did Biesenthal and Wilden (2014), Müller (2012), that majority of project governance mechanisms tend to focus on transaction cost economics theory, especially in construction projects.

Furthermore, the Ahola et al. (2014) investigation does pose some limitations on the study of project governance, including a further understanding of agency theory within a project context, the role of governments as powerful stakeholders for the implementation of major infrastructure projects such as PPPs, and the governance of multi-actor projects with diverse stakeholders and the complexity of interactions. Similarly, Bekker (2015) states that although the categorisation of project governance in three ‘schools of thoughts’ i.e., single firm, multi-firm, and large capital has advanced the sector, more discussions and practical research is needed in understand this phenomenon, particularly, from a stakeholder and ethical consideration.
Chapter Three: Literature Review (Part II)

From the literature, project governance tends to be seen as a multi-level phenomenon where different levels (i.e., project, links parent organisation to project, and parent organisation) require different governance structures and mechanisms (Biesenthal and Wilden 2014). According to Biesenthal and Wilden (2014) investigation of the trends and opportunities for multi-level project governance, at the individual project level, governance mechanisms are imposed by higher project-based organisational levels with a high focus on transaction cost economics and other agency theory to minimise opportunistic behaviour. At the level that links a parent organisation to a project (e.g., PMOs), project governance links to corporate governance and is concerned with defining projects, programs and portfolios, and project management capabilities to deliver projects. At the level of project organisation (or corporate governance), project governance is described as corporate governance for project-based organisation, which is concerned with collecting timely, relevant and reliable reports for senior management to support decision-making. Furthermore, stakeholder theory and stewardship theory tend to characterise this level (Biesenthal and Wilden 2014).

Although Biesenthal and Wilden (2014) undertook a thorough investigation of the project governance phenomenon, it still tends to be seen as a rather linear and rational process i.e., project governance mechanisms implemented to align with corporate governance mechanisms. According to Miller and Hobbs (2005) governance mechanisms must adapt to the particular project and its context, dealing with emergent and co-evolving complexity and dynamic interactions of organisational actors. This is further stressed by Camen et al. (2011, p. 378) who state that the ‘development of a relationship can be described as an evolution, or as a process whereby the parties, in the interim, reduce the distance between themselves and develop trust in their partners.’

**3.4.9 Gaps and Areas for Project Management Advancement**

Research is needed to understand the way project governance influences organisational strategic decision-making on the implementation of project policies. Further understanding is needed on the mechanisms (i.e., formal and informal) used by actors to influence project governance and its strategic outcomes. Thus, the
literature tends to show gaps in the concepts of governance, ethics and governance, institutions and governance, agency theory, transaction cost economics, stewardship theory, trust and control, and project governance for the implementation of project policies. With governance in general, there needs to be an understanding of the ‘steering’ and boundaries of governance including ethics, especially within an institutional system and its effects on project policy implementation. Relational norms and its embeddedness and embodiment within institutional governance structures also needs deeper understanding. From an agency theory perspective, the contractual relationships including information asymmetries and other similar agency theories needs further investigation. Although transaction cost economics is rather embodied within the relational actor space based on trust and norms, it can also be expanded to the collaborative, collective and non-economic approach of stewardship theory to understand its influence on project policy implementation. Also, the co-existence and co-evolution of trust, swift trust, intra- and inter-team based trust, and control while alleviating cognitive biases in rationalising decisions for project policy implementation also requires deeper investigation. See table 3-3 for the concepts, salient characteristics, gaps and areas for project management advancement. This research study will address these gaps in the literature.

### Table 3-3: Summary of Salient Theoretical Literature on Governance and Policy Implementation

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Salient Characteristics</th>
<th>Gaps and Areas for Project Management Advancement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance</td>
<td>• Governance means ‘to steer’</td>
<td>The ‘steering’ and boundaries of governance especially within an institutional system and its influence on project policy implementation.</td>
</tr>
<tr>
<td></td>
<td>• Seen as a complex matter i.e., non-linearity of actor interactions and emergent outcomes</td>
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<tr>
<td></td>
<td>• Corporate governance tends to set the boundaries for project governance – highly questionable</td>
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<tr>
<td></td>
<td>• Governance systems are considered to be an institutional system</td>
<td></td>
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<tr>
<td></td>
<td>• Control of human behaviour which can change for the better or worse</td>
<td></td>
</tr>
<tr>
<td>Ethics and Governance</td>
<td>• Ethical decision-making is highly complex and contains shade of grey</td>
<td>Better ethical decisions, particularly from a partnership and social perspective, including institutional sensemaking and strategic collaboration.</td>
</tr>
<tr>
<td></td>
<td>• Ethics is usually seen from a consequentialist, deontological and virtue perspective</td>
<td></td>
</tr>
</tbody>
</table>

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## Concepts

<table>
<thead>
<tr>
<th>Institutions and governance</th>
<th>Salient Characteristics</th>
<th>Gaps and Areas for Project Management Advancement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Focuses on the implicit and explicit relationships between corporation and stakeholders</td>
<td>Relational norms are embedded and embodied within institutional governance structures for the implementation of project policies.</td>
</tr>
<tr>
<td></td>
<td>Embedded and embodied within relational norms rather than traditional contractual mechanisms</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Will encounter resistance, but normative elements make for effective control than traditional and authoritative governance systems</td>
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<table>
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<tr>
<th>Agency theory</th>
<th>Salient Characteristics</th>
<th>Gaps and Areas for Project Management Advancement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Contractual relationship between principal and agent rooted in bureaucracy</td>
<td>Contractual relationship including information asymmetries, and behavioural agency theory and theory of the agent’s mind for the implementation of project policies.</td>
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<tr>
<td></td>
<td>Delegating some decision-making authority to the agent as principals are bounded rationally</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Both agents and principals seek to receive maximum utility from the relationship with the least possible expenditure</td>
<td></td>
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<td></td>
<td>Requires close monitoring and bonding to limit opportunistic behaviour</td>
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<td>Problem lies in information asymmetries</td>
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<td>Complex project contracts are incomplete because of human bounded rationality: Machiavellianism</td>
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<td>Plagued with difficulties and high risks</td>
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<td>Behavioural agency theory and theory of the agent’s mind suggested as alternative versions of agency theory</td>
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<tr>
<td>Concepts</td>
<td>Salient Characteristics</td>
<td>Gaps and Areas for Project Management Advancement</td>
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| Transaction cost economics | • Focuses on how organisations choose governance structures with economising on transaction costs  
• Assumes that agents act in their own best interests  
• Main drivers are contingency factors, behavioural factors, and context  
• Limited instrumentally and systematically  
• Governing the relational space based on norms, constrains opportunistic behaviour and decreases transaction costs  
• Important aspect of transaction governance choice is the level of trust between the principal and agent | Governing the relational space based on trust and norms, and the main drivers of transaction cost economics for the implementation of project policies. |
| Stewardship theory    | • Individuals in organisations are seen as stewards – decisions act in organisation’s best interest and based on trust  
• Collaborative, collective and non-economic approach, behaviour completely rational  
• High level of principal-steward relationship which is mutually supportive  
• Good governance mechanism for joint utility  
• Enables actors to define and accept an organisation’s vision, mission and objectives, and foster productive working relationships | Collaborative, collective and non-economic approach, and rational behaviour including informal mechanism for the implementation of project policies. |
<table>
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<tr>
<th>Concepts</th>
<th>Salient Characteristics</th>
<th>Gaps and Areas for Project Management Advancement</th>
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</table>
| Trust and control | • Relationship depends on the risk and trust phenomena, control structures and collaborative structures  
• Significant investment needs focus towards understanding the informal mechanisms for project policies  
• Essential governance mechanisms.  
• Exists at multilevels with different sources  
• Expectation partner will not engage in opportunistic behaviour  
• Especially prevalent in strategic alliances  
• Gain trust: relationship between trust, reciprocity and reputation, and requires effort  
• Trust relations are sustained by institutional mechanisms (i.e., formal and informal), which is imperative in complex project environments but does have limitations  
• Superior governance mechanism especially in agency relationships and institutional structures with multiple actors with competing interests  
• Swift trust requires a collective perception and strong relations  
• Front-end phase of projects crucial in terms of creating and sustaining trust  
• Most scholars see trust and control as complements or coexisting  
• Crucial in project partnerships and alliances when the need for | Co-existence and coevolution of trust, and swift trust, and control within a multi-level governing institutional context; and in alleviating cognitive biases in rationalising decisions for project policy implementation. |
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<th>Concepts</th>
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<th>Gaps and Areas for Project Management Advancement</th>
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<td>collaboration between exchange partners’ high</td>
<td>Multi-level phenomenon of project governance and its adaption to a particular project and its context, including its emergent and co-evolving complexity and dynamic interactions for the implementation of project policies.</td>
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<tr>
<td></td>
<td>- Requires a symbiotic coevolution (or mutual reinforcing relationship) approach with ongoing adjustments</td>
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<td></td>
<td>- Partially written contracts facilitate the development of trust in institutional arrangements and personal relationships</td>
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<td>- Limits opportunistic behaviour, enables actors to diffuse and share information, signals problems earlier, and enables collective problem solving</td>
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<td></td>
<td>- Project manager should place a contract in its social context and within the dynamics of relationship development</td>
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<td></td>
<td>- Major dilemmas of control are its illusion or cognitive biases in rationalising decisions but can be reduced or alleviated</td>
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<tr>
<td>Project governance</td>
<td>- Seen as either external to any specific project or internal to a specific project</td>
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<td></td>
<td>- Majority of project governance mechanisms tend to focus on transaction cost economics theory</td>
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<td></td>
<td>- Tends to be seen as a multi-level phenomenon with different structures and mechanisms, and as a rather linear and rational process</td>
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<tr>
<td></td>
<td>- Must adapt to the particular project and its context, dealing with emergent and co-evolving complexity and dynamic interactions for the implementation of project policies</td>
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Conceptual Framework and Proposition

The review and critique of the literature has contributed to the development of a conceptual framework and proposition for the design and conduct of this research study. According to Bloomberg and Volpe (2008), Jabareen (2009), Miles and Huberman (1994) a conceptual framework explains either graphically or in narrative form the main conceptual categories to be studied and the relationships among them. Here each category relates to each research question which forms the backbone of the study. As such, Bloomberg and Volpe (2008, p. 61) state that a conceptual framework ‘provides an organising structure both for reporting the study’s findings as well as the analysis, interpretation, and synthesis of the findings – essentially it becomes a working tool.’ In a broad sense, the aim is to describe and explain, in narrative form, a pattern of relationships with a set of conceptual categories: a simplification of reality (Encyclopedia of Case Study Research 2010). To achieve this, I adopted Jabareen (2009) process, while also considering Rocco and Plakhotnik (2009) salient considerations for developing a conceptual framework which includes the following phases:

1. Mapping selected data sources. This includes extensively reviewing and holistically mapping the multidisciplinary literature regarding the phenomenon in question i.e., existing empirical data and practices, interviews with practitioners and scholars whose work focuses on the phenomenon.
2. Extensively reading and categorising the selected data. This includes reading and categorising the selected data by discipline, importance, and representative power within each discipline.
3. Identifying and naming concepts. This includes the process of ‘discovering’ core concepts (Glaser 2001) which emerged from the literature, and naming them.
4. Deconstructing and categorising concepts. This includes the process of deconstructing each concept, identifying its main attributes and characteristics, and then organising and categorising the concepts.
5. Integrating concepts. This includes integrating and grouping the concepts together, the casual relationships, in narrative form i.e., differentiation between cause and effect, for example, direct effect, mediating effect, or moderating effect.
6. Synthesis, resynthesis, and making it all make sense. This includes the process of synthesising concepts into a theoretical framework i.e., repetitive synthesis and resynthesis until a general theoretical framework emerges which makes sense.
7. **Validating the conceptual framework.** The basic aim here is to validate the conceptual framework, i.e., presentation to a group of experts, conferences.

8. **Rethinking the conceptual framework.** Here the researcher undertakes a process of potentially revising the theoretical framework based on new insights, comments from a group of experts, literature, and so on. All in all, the theory ‘should make sense for those disciplines and enlarge their theoretical perspective on the specific phenomenon in question’ (2009, p. 55).

In addition, the grounded theory approach was adopted that aimed to ‘generate, identify, and trace the phenomenon’s major concepts, which together constitute its theoretical framework’ (Jabareen 2009, p. 53); as was Rohlfing’s (2012) integrative framework on causal inferences including mechanisms, entities and activities. Although debated in the literature (see Gerring 2010, Rohlfing 2012) this research adopts the word ‘mechanisms’ with its associated ‘properties,’ rather than ‘categories,’ as it more accurately ‘explains how a phenomenon comes about or how some significant process works’ (Machamer *et al.* 2000, p. 2). Moreover, it is commonly used to describe good propositions and theory making (Davis and Marquis 2005, Gerring 2005, Shepherd and Suddaby 2017). This view has been embraced and professed by leading scholars with near total absence of opposition (Gerring 2010, Rohlfing and Schneider 2016, Weller and Barnes 2016). In this light, the following plausible and working proposition was developed and articulated from the literature which guided the remainder of the research process:

Project management, seen as an instrumental technocratic process, is in fact an institutional emergent process which leads to the successful implementation of mega public sector infrastructure program of projects.

Figure 3-3 conceptualises the proposition in a conceptual framework, which is directly derived from the study’s research questions, as outlined in Chapter One. The first research question seeks to determine the extent of, and how, do external factors of economic environment, social environment, political and expert knowledge influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. While the second research question focuses on the internal factors of power and politics, information and knowledge, culture, and governance within the same context. These questions are holistically embedded into the framework with ‘constant re-evaluation and re-negotiation of concepts (or mechanisms) and its boundaries, its key contributions and its place in the wider literature i.e., fluid and emergent rather than linear’ (Sinkovics and Alfoldi 2012, p. 821), which will be explained next.

According to Machamer *et al.* (2000, p. 3) the ‘organisation of the entities and activities (i.e., types of causes or interactions) determines the ways in which they produce the phenomenon.’ For example, the theorised phenomenon *project institutionalisation leads to the successful implementation of mega public sector infrastructure program of projects*, which is donated by the dashed arrow, is determined by the
theorised mechanisms (entities or actors) project institute, institutional-based governance, project reality, and rational agent, which is donated by the solid arrows. These mechanisms or entities engage in activities or behaviours to ‘explain why the former has an effect on the latter’ (Rohlfing 2012, p. 35). For example, the entity project institute engages in project action-based activities of front-end institutional project work, which effects institutional-based governance and the coevolution of power, trust and control, and so on. Such a process can be referred to as a multi-mechanism explanation, which serves to deliver observations that support the proposition (Rohlfing 2012). A further explanation of the phenomenon including how the entities engage in project action-based activities, including the salient gaps identified in the literature, to ensure productive continuity will be discussed next.

As organisations carry or generate institutions (Kadefors 1995) or institutional logics (Thornton and Ocasio 2008), and the strength of institutionalisation is dependent on the relational embeddedness i.e., regulative, normative and cognitive frames, and institutional work between and among individuals and their institutions (Battilana and D’Aunno 2009, Lawrence et al. 2009, Scott 2014, Thornton et al. 2012), including ethical thinking (Helgadóttir 2008) within a project environment; the logical mechanism to capture this would be project institutionalisation. Such a context also requires actors to make sense of and construct an interpretation of reality – the emergent phenomenon (Maitlis and Christianson 2014, Sandberg and Tsoukas 2015, Weick et al. 2010) aligned with temporary organising as a process and form (Bakker et al. 2016). For example, project institutions identified primarily with bureaucratic, regulative and cognitive power relations and consequentialist reasonings is considered to lead to the unsuccessful implementation of mega public sector infrastructure program of projects. Such a phenomenon is also seen in project management as an instrumental technocratic process (Morris 2013, Morris 2012, Walker and Lloyd-Walker 2016), or the ‘iron cage’ of project management, where ‘institutionalised norms, practices and logics which structure organisational fields exert isomorphic pressures, forming an ‘iron cage’ which constrains organisational actions’ (Zietsma and Pedersen 2009, p. 143) in temporary organising aligned with the task ‘uniqueness’ (Burke and Morley 2016), or action-based entrepreneurialism (Lundin and Söderholm 1995),
Improving the Link between Project Management and Strategy to Optimise Project Success

i.e., temporary organising as process and form (Bakker et al. 2016) aligned with the organisational change initiative. ‘Escaping the iron cage’ is absolutely essential in times of uncertainty and ‘complex’ change, that is, when there are discrepancies between expectations and reality, such as, megaprojects (Van Marrewijk et al. 2016), temporary organisations (Lundin et al. 2015), strategic change (Balogun and Johnson 2005), and teams managing crises and unexpected events, which ‘triggers’ the need for sensemaking (Maitlis and Christianson 2014). Whereas, project institutions identified primarily with collective, normative and cognitive power relations and deontological reasonings is considered to lead to the successful implementation of mega public sector infrastructure program of projects. This phenomenon is further explained by the mechanisms of project institute, institutional-based governance, project reality, and rational agent with their associated project action-based activities.

Since sensemaking is a social phenomenon where actors create intersubjective meaning arising out of human interaction for collective action (Sandberg and Tsoukas 2015, Weick 1995), the mechanism to capture such action meaning cycles of sensemaking is a project institute through the project action-based activities of front-end institutional project work where organisational actors create, maintain and disrupt institutional project relations aligned at the front-end with the temporary uniqueness, or action-based entrepreneurialism, of the organisational change initiative that ‘triggers’ the need for sensemaking i.e., comprehend the world and act collectively in a more taken-for-granted reality. This also includes the project action-based activities of embedding a strategic intent, such as, vision and mission statements through powerful narratives and a strategy for achieving that vision within the project environment; enacting collective institutional leadership that fosters a ‘sink-or-swim’ or esprit de corps mindset towards a responsive and highly adaptive performing ‘action team’; embracing an institutional leader, seen as a ‘statesman,’ making critical and character-defining decisions, and a change agent, truly transforming the relational actor space towards an unique temporary organising institutionalised project reality aligned at the front-end with the organisational change initiative. However, such institutional work is dependent on ‘steering,’ or influencing and shaping, actors (inter)actions to achieve project strategies and benefits, hence, the appropriate mechanism is institutional-based governance through the coevolution of power, trust and control project action-based activities. This includes the project action-based activities of ‘power-to’ people and identifying the right medium through which power is exercised and diffused; situating normative ethics in everyday discourse; making decisions based on deontological and virtue ethics; embedding trust in relations, such as institutional-based trust; using contracts to facilitate trust; which taken together, coevolve through the ongoing processes of adjustments and reciprocity to create and maintain strong relational bonds. Although such an institutional state of governance, if it is ever reached, is temporal at best (Gerrits et al. 2009), through such project action-based activities actors truly form an unique temporary organising institutionalised project reality aligned at the front-end with the organisational change initiative, which can transcend the isomorphic (i.e., ‘iron cage’) of organisational institutes from the intrasubjective to an
intersubjective and then form an unique temporary organising institutionalised project reality – a taken-for-granted reality aligned with the project change – hence the mechanism *project reality*. Being in such a state of embedded agency (Thornton and Ocasio 2008, Thornton et al. 2012), actors’ diffusion of information and knowledge based on the project action-based activities of strategic equilibrium-based reasoning, including reason-based explanations (motivating) and reason-based justifications (normative), can either increase or decrease the risk of cognitive biases in rationalising decisions, hence, the appropriate mechanism is *rational agent*. Such a linchpin is the ‘success’ in ‘successful implementation,’ more elaborately, a rational agent strategically shaping institutional project reality aligned at the front-end with the temporary uniqueness of the organisational change initiative in achieving project strategies and benefits. Such an inference that project institutionalisation leads to the successful implementation of mega public sector infrastructure program of projects occurs in the relational actor space of (inter)actions, thus, the appropriate theoretical concept to capture this would be the *relational actor space (inter)actions*.

The relationships between each mechanism is demonstrated by the arrows in the conceptual framework. Although sensemaking is ‘not Aristotelian – that is, linear, mutually exclusive, and exhaustive’ but interconnected through feedback loops (Kessler 2013, p. 496), to understand such a phenomenon and guide the remainder of the research process, it will be represented as Aristotelian. The dotted line signifies the cause-effect relationship, while the solid lines signify the means-end relationship. This will be advance in the next chapter.

### 3.6 Summary

This literature review and analysis investigated factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects, including the exploration of effective governance mechanisms to optimise its success. Particularly, with a focus on the muddled and strategic context i.e., complex, dynamic, plural and emergent properties of organisational strategic decision-making, intertwined in often unforeseen ways between different agency and actor (inter)actions. The literature review focused on two major areas, being: external and internal environmental factors that influence organisational strategic decision-making, governance and policy implementation. From these major areas of investigation, it can be argued that when considering the implementation of public sector project policies, the following can be concluded:

- Enabling better rationalising of decisions for the implementation of project policies requires an understanding of actor and agency (inter)actions including external and internal environmental factors that influence their strategic decision-making (i.e., economic environment, political, social, expert knowledge, power and politics, culture, information and knowledge), and how they
influence others. This also includes decentralisation of decision-making, collective approach to a
    course of action through mechanisms of power, diffusion of information and knowledge, and a
    clear ‘command structure’ for people to make fast and sometimes painful decisions (Klijn and
    Teisman 1991). Basically, decision-making on the implementation of project polices requires an
    understanding of the strategic relational actor space that affect and shape individual and agency
    (inter)actions. Furthermore, many of these elements of theories can be traced back to governance
    (Klijn and Snellen 2009).

    • Governance, a ‘steering’ mechanism, is bound within the complexity of individual and agency
      (inter)actions and their emergent outcomes (Teisman et al. 2009a). This is especially prevalent with
      project governance, where boundaries are set by corporate governance systems (Müller 2012), in a
      rather linear relationship. From a theoretical perspective, this is questionable, as governance
      systems are complex and dynamic i.e., linear and non-linear, stable and non-stable (Teisman et al.
      2009a, Van Ees and Van Der Laan 2012) with elements of strategy and innovation (Clarke and
      Branson 2012). Within this context, governance systems are considered to be an institutional
      system embedded within the complexity of human behaviour (Fiss 2008). Here the elements of
      power, trust and control are of central importance when creating and maintaining governance
      systems, especially for the implementation of project and program policies in democratic
      institutions and societies (Edelenbos et al. 2010a, Edelenbos et al. 2010b, Flyvbjerg 1998, Van
      Buuren et al. 2012). This is also imperative in public administration, where decision-making is
      linked to power (Fast and Chen 2009) and desired outcomes (Yarritu et al. 2014) are ‘plagued’
      with cognitive biases, such as delusions, illusions, deceptions, optimism, overconfidence and
      strategic misrepresentation (Flyvbjerg 2008a, 2009a, Flyvbjerg et al. 2009, National Audit Office
      2011b, Productivity Commission 2014). Basically, governance for the implementation of project
      policies requires an understanding of governing the relational actor space of project (inter)actions
      through formal and informal governance mechanisms which are institutionalised by agency actor
      (inter)actions.
CHAPTER FOUR: METHODOLOGY AND RESEARCH DESIGN

4.1 Introduction

Chapter Four Prologue

What the previous chapter did:
The literature review critically reviewed and analysed factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects, including an exploration of governance mechanisms to optimise its success. It also identified salient characteristics, gaps and areas for project management advancement.

What this chapter does:
The methodology and research design discusses the research context, paradigm, methodology, and the case study approach in conducting this research. This includes the PhD as a vehicle for research, my experience and role, the worldview, the case study as a methodology and method, collection of evidence and research instruments, and the triangulation of data.

What the remaining chapters do:
- Chapter Five will discuss and describe the case study and the organisations selected as case studies.
- Chapter Six will provide the data analysis and interpretation of the case study.
- Chapter Seven will provide the validation of the case study research through a few mechanisms.
- Chapter Eight will provide evidence and reflections of the research process.
- Chapter Nine will provide the findings, insights and recommendation for practice and future research.

This aim of this research is to investigate factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. Particularly, with a focus on the muddled and strategic context i.e., complex, dynamic, plural and emergent properties of organisational strategic decision-making, intertwined in often unforeseen ways between different agency and actor (inter)actions. I believed that a better understanding of this phenomenon would enable project managers to implement an effective governance mechanism at the front-end of project policies to eradicate potential ‘hijacking’ of the project shaping process. In seeking to understand this phenomenon, the study addressed
two research questions: (1) to what extent and how do the external factors of economy, social, political and expert knowledge influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects? (2) To what extent and how do the internal factors of power and politics, information and knowledge, culture and governance influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects?

This chapter describes the research methodology and research design including discussions on: context being the PhD as a vehicle for research; experience and role of the researcher; research paradigm i.e., worldview of the researcher and stance; research methodology being a case study approach; the research strategy and methods of data collection and analysis as research method; collection of evidence; case organisations; research instruments used as case study evidence; and triangulation of data. The chapter culminates with a brief concluding summary.

4.2 Context

4.2.1 The PhD as a Vehicle for Research

According to RMIT University (2016) a Doctor of Philosophy (PhD) program allows individuals to pursue their own theories and ideas and contribute to research in their field, which complies with the Australian Qualifications Framework: Level 10. Here the purpose of a doctoral degree (typically referred to as a PhD) is to ‘qualify individuals who apply substantial body of knowledge to research, investigate and develop new knowledge, in one or more fields of investigation, scholarship or professional practice’ (Australian Qualifications Framework 2013, p. 63). This suggests that research is the defining characteristic of doctoral degrees with ‘substantial body of knowledge’ as a key element. According to Petre and Rugg (2010) substantial body of knowledge, or significant contribution, means providing evidence to substantiate a conclusion that is worth making, which usually involves three key steps: What’s the question? What evidence will answer the question? Choose a technique that will produce the required evidence. To achieve this requires motivation, critical thinking and analysis, good academic English, balance between independence and guidance and family (Petre and Rugg 2010). This is also emphasised and further advanced by Murray (2011, p. 145) who states that a PhD is a piece of independent research which aims to contribute to knowledge with a focus on a core question (i.e., problems in the world, gaps in the literature, etc.), and is generically structured as follows:
• **Introduction/Background/Review of the Literature**
  Summarise and evaluation books, articles, theses, etc.
  Define the gap in the literature
  Define and justify your project

• **Theory/Approach/Method**
  Define method, theoretical approach, instrument
  Method of inquiry
  Show links between your method and others
  Justify your method

• **Analysis/Results**
  Report what you did, list steps followed
  Document the analysis, showing how you carried it out
  Report what you found
  Prioritise sections for your thesis or for an appendix

• **Interpretation/Discussion**
  Interpret what you found
  Justify your interpretation
  Synthesise results in illustrations, tables, graphs, etc.

• **Conclusions/Implications/Recommendations**
  For future research
  For future practice
  Report issues which were beyond the scope of this study

The above framed my research approach for this thesis. Petre and Rugg (2010) state that the capacity for independent research means having knowledge, skills, critical thinking and intuitive to design and conduct rigorous research. Overall, a PhD is a ‘vehicle’ for research as it involves significant collective effort i.e., independent research within a supervisory relationship, drive to find answers to questions that provides significant contribution to knowledge, undertaken in a rather interactive and recursive, and sometimes unpredictable ways. One of the important contextual features of this PhD journey was that it was substantially informed by the experience and background of the researcher, me. This vital element needs some explanation because it reveals the strengths of the research having valuable and unique insights into the process being studied, but also shapes potential biases that I was cautiously aware of and endeavoured to not allow this to cloud my critical evaluation of evidence gathered and analysed to help me draw conclusions from the work.
4.2.2 Experience and Role

I have about five years’ experience as a senior program officer in leading and managing infrastructure projects and programs for state government agencies. Prior to this I was in the property sector, valuing high-rise commercial, major retail hubs, industrial and residential properties for about three years. Most the projects and programs were in the educational infrastructure and finance space. This included projects to the value of about AUD $1 billion and program of projects to the value of about AUD $500 million such as planning, land acquisition and disposal, leases and licences, capital works (construction), information and communication technology, and asset revaluations. These projects and programs where seen as strategic, complex, dynamic and characterised by plurality. Some of the daily operational tasks included:

- Contributing to the full life-cycle of projects and programs to meet departmental and other government strategies and benefits. For example, undertaking research and analysis for the implementation of projects and programs; managing projects and sub-projects and being responsible for their successful delivery within deadlines, resourcing and budgetary constraints. Other tasks included monitoring and evaluating project performances.
- Providing authoritative, high-level strategic, financial, risk management and commercial advice to cabinet, ministers, executives and other senior managers, and external stakeholders on complex project management matters. For example, ministerial briefs, cabinet and agency submissions, and memos on complex and highly sensitive project matters.
- Working with intra- and inter-governmental agencies (state and federal) to implement and deliver major infrastructure projects while ensuring appropriate risk and stakeholder management principles and practices where in place.
- Creating and maintaining mutually beneficial relationships with key and influential stakeholders to facilitate a strong partnership approach to project implementation and delivery.
- Undertaking intensive negotiations with powerful stakeholders, including developing negotiation strategies, and reviewing and amending major project agreements.
- Representing the department on steering committees and other working groups.
- Providing leadership to staff from diverse backgrounds.
- Maintaining accurate and complete records of project work activities in line with legislative, regulative and policy requirements.

This experience involved substantial time and effort and was a consuming process where most of the projects and programs failed to achieve their strategies and benefits. Upon personal reflection, this major drawback appeared to be principally due to a muddled strategic context, intertwined between different agency and actor (inter)actions and their deceptions of reality. However, paradoxically, despite this apparent complex and at times chaotic environment, the projects that achieved their strategies and benefits
had a strong sense of collectiveness, confident decision-making, innovative thinking, high level of stakeholder commitment and governing mechanisms. My main reflection was that I was operating in a contagious Machiavellianism environment. This is imperative for this research project because this paradox piqued my interest to undertake this PhD.

4.3 Research Paradigm

The philosophical position or worldview of the researcher is important to consider and define for the readers so they can understand the research approach adapted by the researcher. Researchers always bring certain beliefs and philosophical assumptions to research (Creswell 2013, 2014), which shapes the problem and research questions and the way to answer the research questions (Creswell 2013). This is also reinforced by Denzin and Lincoln (2005, p. 22) statement that a paradigm is a ‘basic set of beliefs that guides action.’ Consequently, this research uses Creswell and Clark (2011) conceptualisation to position philosophy within a qualitative study, as depicted in figure 4-1.

![Figure 4-1: Qualitative Study Conceptualisation Position. Figure by Creswell and Clark (2011, p. 39).](image)

Creswell and Clark (2011) state that there are four elements to designing a study. At the broadest level is the philosophical assumptions, such as ontology behind the study. These philosophical assumptions or worldviews inform the use of a theoretical stance that the researcher might use. This stance then informs
the methodological approach or research design. Then finally, the methodological approach includes the methods or procedures to collect, analyse, and interpret the data.

Creswell and Clark (2011) discuss four paradigms that are common in literature, being postpositivism, constructivism, participatory, and pragmatism. Postpositivism assumptions are grounded in a scientific method of research, a lens of objective reality, where probable causes determine effects or outcomes. Rather than starting with theory, constructivists (which is often combined with interpretivism) aim to make sense of reality, develop a theory or pattern of meaning, and develop subjective meanings of their experiences (a humanistic sense of the world). The participatory paradigm focuses on marginalised or disenfranchised groups, and is intertwined with politics and political change agendas confronting social oppression. Pragmatism focuses on the outcomes of a research rather than antecedent conditions, and uses multiple methods of data collection to answer a research question. The major elements of each paradigm are presented in table 4-1.

Table 4-1: Paradigms and their Major Elements

<table>
<thead>
<tr>
<th>Postpositivism</th>
<th>Constructivism</th>
<th>Participatory</th>
<th>Pragmatism</th>
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<tbody>
<tr>
<td>Determination</td>
<td>Understanding</td>
<td>Political</td>
<td>Consequences of action</td>
</tr>
<tr>
<td>Reductionism</td>
<td>Multiple participant meaning</td>
<td>Empowerment and issue oriented</td>
<td>Problem-centered</td>
</tr>
<tr>
<td>Empirical observation and measurement</td>
<td>Social and historical construction</td>
<td>Collaborative</td>
<td>Pluralistic</td>
</tr>
<tr>
<td>Theory verification</td>
<td>Theory generation</td>
<td>Change oriented</td>
<td>Real-world practice oriented</td>
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</table>

Source: Creswell (2014, p. 6).

According to Creswell and Clark (2011, p. 41) all ‘four paradigms have common elements but take different stances on these elements, which take a different stance on the assumed nature of reality (ontology), how we gain knowledge of what we know (epistemology), the role values play in research (axiology), and the process of research (methodology),’ which influence how researchers undertake their research inquires. Examples of these paradigms and how they are translated into practice are presented in table 4-2.

Among the main four paradigms of postpositivism, constructivism (or interpretivist), participatory and pragmatism as outlined by Creswell (2007), Creswell and Clark (2011), this research adopts an interpretivist worldview with an ontological stance, as highlighted in table 4-2. Fundamentally, the rationale
behind adopting such a view is that interpretivism enables the researcher to understand (*Verstehen*⁵) the world of human experience (Mackenzie and Knipe 2006, emphasis added). Such a worldview is succinctly argued by Hammersley (2013, p. 27) who states that ‘we cannot understand why people do what they do, or why particular institutions exist and operate in characteristic ways, without grasping how people interpret and make sense of their world and act on their interpretations.’ Such a view is pinnacle to interpretivism, that is, understanding the ‘meaning’ of social phenomena (Schwandt 1994), particularly, the *Verstehen* in the means-end relationship (Lane 1974) which underpins this research study. Furthermore, interpretivism is particularly dominate in project management research (see Biedenbach and Müller 2011). While interpretive approaches have their critics (Orlikowski and Baroudi 1991), the conception of organisational strategic decision-making pursued here usefully permits me to focus on the muddled and strategic context of such decision-making by means of understanding agency and actor (inter)actions. It also assists me to examine the means by which external and internal factors of influence may be exercised, created, maintained and enhanced with the successful implementation of mega public sector infrastructure program of projects.

Table 4-2: Common Elements of Paradigms and Implications for Practice

<table>
<thead>
<tr>
<th>Worldview Element</th>
<th>Postpositivism</th>
<th>Constructivism (or Interpretivist)</th>
<th>Participatory</th>
<th>Pragmatism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ontology</strong> (What is the nature of reality?)</td>
<td>Singular reality (e.g., researchers reject or fail to reject hypothesis; reality as concrete structures and behavioural patterns, reality as process: interrelated actions)</td>
<td>Multiple realities (e.g., researchers provide quotes to illustrate different perspectives; social reality relative to interactions between people in moments of time and space, socially constructed, emerging; context is human action and interpretation)</td>
<td>Political reality (e.g., findings are negotiated with participants)</td>
<td>Singular and multiple realities (e.g., researchers test hypotheses and provide multiple perspectives)</td>
</tr>
<tr>
<td><strong>Epistemology</strong> (What is the relationship between the)</td>
<td>Distance and impartiality (e.g., researchers visit participants at their sites to collect data)</td>
<td>Closeness (e.g., researchers actively involve participants at their sites to collect data)</td>
<td>Collaboration (e.g., researchers actively involve participants at their sites to collect data)</td>
<td>Practicality (e.g., researchers collect data by</td>
</tr>
</tbody>
</table>

⁵ *Verstehen*, a German word for personal understanding, is commonly used in social science to explain human action i.e., a researcher ‘putting oneself in the other fellow’s shoes,’ and the validation of explanations (Bourgeois 1976, p. 27).
<table>
<thead>
<tr>
<th>Worldview Element</th>
<th>Postpositivism</th>
<th>Constructivism (or Interpretivist)</th>
<th>Participatory</th>
<th>Pragmatism</th>
</tr>
</thead>
<tbody>
<tr>
<td>researcher and that being researched?</td>
<td>objectively collect data on instruments</td>
<td>participants as collaborators</td>
<td>“what works” to address research questions</td>
<td></td>
</tr>
<tr>
<td>Methodology (What is the process of research?)</td>
<td>Deductive (e.g., researchers test an a priori theory; surveys, observation, structured/coded interviews)</td>
<td>Inductive (e.g., researchers start with participants’ views and build “up” patterns, theories, and generalisations; grounded theory, discourse analysis, content analysis)</td>
<td>Participatory (e.g., researchers involve participants in all stages of the research and engage in cyclical reviews of results)</td>
<td>Combining (e.g., researchers collect both quantitative and qualitative data and mix them)</td>
</tr>
<tr>
<td>Axiology (What is the role of values?)</td>
<td>Formal style (e.g., researchers use agreed-on definitions of variables)</td>
<td>Informal style (e.g., researchers write in a literary, informal style)</td>
<td>Advocacy and change (e.g., researchers use language that will help bring about change and advocate for participants)</td>
<td>Formal or informal (e.g., researchers may employ both formal and informal styles of writing)</td>
</tr>
</tbody>
</table>


From an ontological perspective, the nature of reality is rather subjective and associated with ‘interpretive approaches to social constructionism, where multiple realities are experienced, constructed, and interpreted in many ways’ (Cunliffe 2011, p. 656). Such an approach enables researchers (i.e., subjectivist researchers) to embrace hermeneutic, constructivist, and phenomenological approaches to research, for example, focusing on ‘micro-interactions (e.g., executive strategy meetings, work interactions) or macro level organisational and societal discourses and their impact (e.g., on organisational identities)’ (Cunliffe 2011, p. 656). Taken together, ontology (i.e., subjectivist) and epistemology (i.e., interpretivist) are related in commonsense actions and interactions, and from a research methods perspective, semi-structured interviews, case studies or grounded theory are commonly used to explore different meanings, perceptions, and interpretations of organisational actors (Cunliffe 2011, Scotland 2012). For example, organisational strategic decision-making involving the interpretation of complex forms of human (inter)actions i.e., the
action means cycles of sensemaking in creating and maintaining institutional project relations, which can be analysed at the macro or micro level and broken down into sub-processes. With this worldview, research is more of a craft than a scientific endeavour (Cunliffe 2011), which is valuable in interpreting and ‘reconstructing’ social, political and organisational life: hidden meanings, actions, practices and institutions (Allard-Poesi 2005, Hay 2011, Novicevic et al. 2016), where such phenomena underlines this research study.

Although with the interpretive paradigm there is no independent reality and knowledge is pragmatic (i.e., commonsense), in contrast with postpositivists where reality is seen to exist independently from our interactions and knowledge is syntagmatic (i.e., structural) (Cunliffe 2011), it has shortcomings (without bowing the research as science i.e., postpositivism) towards procuring the truth. For example, reaching consensus can be problematic i.e., validation of findings, therefore, researchers engage in practices of prolonged engagement, persistent observation, thick and rich description, negative case study analysis to demonstrate trustworthiness (Angen 2000). Other dilemmas are: transferability of knowledge, ethical validation, and researchers imposing their own subjective interpretations. However, most of these are common misunderstandings (see Flyvbjerg 2006, Rohlfing 2012, Yin 2014), and the trustworthiness or legitimacy of a research study is usually taken up by the community of researchers (Mishler 1990).

4.4 Research Methodology

This research aims to understand factors that influence organisational strategic decision-making within a public sector mega program of projects policy context. This is achieved by interviewing participants, having them project their individual consciousness – their own worldview of the phenomenon, and then triangulate the findings to discover the closest truth possible or true reality. Additionally, Carroll and Johnson (1990, p. 31) state that:

Decision makers frequently are unable to articulate their underlying decision processes, or are more interested in presenting a favourable impression. As a result, we need some ways to check on the accuracy and completeness of self-reports. Both self-reports and case study methods represent natural or implicit methods because they have every day, commonsensical origins and uses. They are typically qualitative, rather than quantitative, in the way data are collected and interpreted.

Consequently, this research will focus on case study as a methodological approach. The rationale being that case study is a commonly used method to study organisational behaviour [such as Machiavellianism which underpins much of this research study], which is used to capture contextual richness and complexity (Dyer et al. 1991). Furthermore, it can be seen as qualitatively or quantitatively, or even in combinations (Encyclopedia of Case Study Research 2010). Creswell (2013, p. 97) defines case study research as a
‘qualitative approach in which the investigator explores real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information, and reports a case description and case themes.’ Similarly, Rohlfing (2012, p. 27) defines case study as the ‘empirical analysis of a small sample of bounded phenomena that are instances of a population of similar phenomena.’ This is advanced by Yin (2014, p. 16) who provides a ‘twofold definition of case study. The first part begins with the scope of a case study:

1. A case study is an empirical inquiry that
   - investigates a contemporary phenomenon (the ‘case’) in depth and within its real-world context, especially when
   - the boundaries between phenomenon and context may not be clearly evident.

The first part of the definition distinguishes case study research from other research methods. The second part focuses on the features of a case study:

2. A case study inquiry
   - copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result
   - relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result
   - benefits from the prior development of theoretical propositions to guide data collection and analysis.

A key element in these definitions is the word ‘case,’ which requires further explanation. According to Rohlfing (2012, p. 24) a ‘case’ is ‘a bounded empirical phenomenon that is an instance of a population of similar empirical phenomena.’ The author further elaborates on two attributes in the definition – ‘bounded empirical phenomenon’ and ‘instance of a population of similar phenomena.’ The latter attribute focuses on ‘causal homogeneity, which signifies that a cause-effect relationship is, on average, expected to hold true for the cases within the population’ (2012, p. 24). While the former attribute focuses on exhaustively delineating a certain number of boundaries of a case i.e., a temporal and a substantive bound. Rohlfing’s analysis positions case studies on the ‘ontological premise that at least some empirical relationships are regular, that is invariant or at least systematic, and that one can learn something about these relationships via systematic small-n research’ (2012, p. 1). Subsequently, this research adopted Rohlfing (2012) integrative framework on case studies and casual inference, which focuses on four dimensions:

1. Research purpose or goal of a case study focuses on the formulation, test or refinement of a hypothesis or proposition.
2. **Level of analysis** is of theoretical interest and focuses on the cross-case level i.e., ‘infer whether a given factor has a causal effect and, if it does, of what sort it is,’ and/or within-case level i.e., casual mechanisms and processes – or the means-end relationship.

3. **Nature of the causal effect** focuses on the question if an effect of a cause on an outcome is correlational or set-relational.

4. The frequentist and Bayesian modes of casual inference are for case studies that specifically test hypotheses or propositions, rather than modifying propositions (2012, p. 4).

The integrative framework can be conceptualised as *‘the empirical analysis of a small sample of bounded empirical phenomena that are instances of a population of similar phenomena’* (2012, p. 2, emphasis in original). Using Rohlfing’s integrative framework, the aim of this case study is to *investigate factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects* with testing the theorised proposition, which is based on problematization⁶, after empirical analysis (see Eisenhardt 1989b). The plausible and working proposition developed and articulated for this study, which guided the research process is:

> Project management, seen as an instrumental technocratic process, is in fact an institutional emergent process which leads to the successful implementation of mega public sector infrastructure program of projects.

The level of analysis focuses on the cross-case level and the within-case level, see figure 4-2. As rather discussed in and expanding on the previous chapter, the causal effect on the cross-case level is theorised as *project institutionalisation leads to the successful implementation of mega public sector infrastructure program of projects*, which is donated by the dashed arrow. While the mechanisms that produce the within-case relationship are *project institute, institutional-based governance, project reality, and rational agent* which is donated by the solid arrows. These mechanisms can be seen as entities or actors that engage in activities or behaviour to ‘ensure productive continuity between the cause and the outcome and explain why the former has an effect on the latter’ (Rohlfing 2012, p. 35). For example, the entity *project institute* engages in project action-based activities of *front-end institutional project work*, which effects *institutional-based governance* and the *coevolution of power, trust and control*, and so on. Such a process can be referred to as a multi-mechanism explanation, which serves to deliver observations that support the proposition (Rohlfing 2012). For example, analysis of documents on *front-end institutional project work* and interviews with government and non-government actors. In addition, the nature of the causal effect is set-relational as the case is based on an invariant cause-effect relationship, and the research focuses on how *project*

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⁶ Problematization means to ‘challenge the value of a theory and to explore its weaknesses and problems in relation to the phenomena it is supposed to explicate’ (Alvesson and Karreman 2007, p. 1265), which enables the development of theory that is interesting rather than obvious, irrelevant, or absurd (Davis 1971).
Figure 4-2: Multiple-Mechanism Explanation. Figure partially adapted from Rohlfing (2012, p. 38).
institutionalisation, a condition \((X)\) and independent variable, is related to the successful implementation of mega public sector infrastructure program of projects, an outcome \((Y)\) and dependant variable, thus, for this case study, the condition (or the variation of interest) is sufficient for the outcome (see Rohlfing 2012). From the means-end relationship, this can be seen as ‘\(X\) is a means, to an end, \(Y\),’ where ‘end,’ refers to actual activities or behaviours of actors, and ‘means,’ refers to actual activities or behaviours of actors that are sufficient conditions for end, \(Y\), and \(X\) and \(Y\) are not intentional objects’ (Lane 1974, p. 26). For example, an unique temporary organising actor \((X)\) uses instrumental technocratic processes, means, for the successful implementation of mega public sector infrastructure program of projects \((Y)\), but in fact, \(X\) uses institutional emergent processes, means, for \(Y\), regardless of what the intentions of \(X\) may have been.

As a chosen case is to stand for or represent a population of cases, another imperative consideration with case study research is case selection (Gerring 2007, Rohlfing 2012, Seawright and Gerring 2008). Which case(s) should be chosen? Although scholars, when choosing a case, tend to lean towards ‘pragmatic considerations such as time, money, expertise, and access, which if chosen must be justified; they do not provide a methodological justification for why case A might be preferred over case B’ (Seawright and Gerring 2008). According to Seawright and Gerring (2008, p. 296), and similarly professed by Rohlfing (2012), when choosing a case, researchers should focus on the ‘cross-case characteristics of a case: how the case fits into the theoretically specified population.’ In addition, Seawright and Gerring (2008, p. 297) provide the following seven case selection strategies to assist researchers in identifying useful cases for in-depth research:

1. Typical method selects cases (one or more) that exemplifies a stable, cross-case relationship. Its use is confirmatory; to probe casual mechanisms that may either confirm or disconfirm a given theory. The typical case is representative, given the specified relationship.

2. Diverse method selects cases (two or more) that exemplify diverse values \(X\), \(Y\), or \(X/Y\). Its use is exploratory or confirmatory; illuminates the full range of variation of \(X\), \(Y\), or \(X/Y\). It is likely to be representative in the minimal sense of representing the full variation of the population.

3. Extreme method selects cases (one or more) that exemplify extreme or unusual values of \(X\) or \(Y\) relative to some univariate distribution. Its use is exploratory; open-ended probe of \(X\) or \(Y\); and representativeness is achievable only in comparison with a large sample of cases.

4. Deviant method selects cases (one or more) that deviate from some cross-case relationship. Its use is exploratory or confirmatory; to probe new explanations for \(Y\), to disconfirm a deterministic argument, or to confirm an existing explanation (rare). After the case study is conducted, it may be corroborated by a cross-case test, which includes a general hypothesis (a new variable) based on the case study research. If the case is now an on-lier, it may be considered representative of the new relationship.
5. Influential method selects cases (one or more) with influential configurations of the independent variables. Its use is confirmatory; to double-check cases that influence the results of a cross-case analysis. It is typically not representative.

6. Most similar method selects cases (two or more) that are similar on specified variables other than $X_i$ and/or $Y$. Its use is exploratory if the hypothesis is $X$- or $Y$-centered; confirmatory if $XY$-centered. Most similar cases that are broadly representative of the population will provide the strongest basis for generalisation.

7. Most different method selects cases (two or more) that are different on specified variables other than $X_i$ and $Y$. Its use is exploratory or confirmatory; to (1) eliminate necessary causes (definitively) or (2) provide weak evidence of the existence of a causal relationship. Most different cases that are broadly representative of the population will provide the strongest basis for generalisation.

Based on Seawright and Gerring (2008) strategy for case study selection, and considering the research aim, type of causal effect, and level of analysis, this research adopts the typical case method. The dimensions or variables and boundaries for the case study which represent the population of cases are:

- ‘Project Institutionalisation’ seen as the strength of relational embeddedness i.e., regulative, normative and cognitive frames, and institutional work between and among individuals and their institutions (Battilana and D’Aunno 2009, Lawrence et al. 2009, Scott 2014, Thornton et al. 2012) aligned at the front-end with the temporary uniqueness of the organisational change initiative (Bakker et al. 2016, Burke and Morley 2016, Lundin et al. 2015), engaged in project action-based activities of sensemaking (Maitlis and Christianson 2014, Sandberg and Tsoukas 2015, Weick et al. 2010) and strategic equilibrium-based reasoning, including reason-based explanations (motivating) and reason-based justifications (normative). Project institutions identified primarily with bureaucratic, regulative and cognitive power relations and consequentialist reasonings is considered to lead to the unsuccessful implementation of project policies: traditional project management school of thought. Whereas, project institutions identified primarily with collective, normative and cognitive power relations and deontological reasonings is considered to lead to the successful implementation of project policies. This variable is also an institutional boundary dimension.

- ‘Successful,’ successful in the sense of achieving project strategies and benefits, and unsuccessful in the sense of failing to achieve project strategies and benefits (Shao et al. 2012). This variable is also an element of the substantive boundary dimension.

- ‘Implementation’ seen as the authorisation of a sponsor to commit resources to a project, which takes many years, from the front-end until its execution (Edkins et al. 2013). This variable is also a temporal boundary dimension.
• ‘Mega public sector infrastructure program of projects’ seen as ‘large-scale, complex infrastructure program of projects, or a megaproject, measured in the billions of dollars (or euros, pounds, etc.), are transformational, impact millions of people’ (Flyvbjerg 2014, p. 6). This variable is also an element of the substantive boundary dimension.

Subsequently, the case selected for this research, within resource constraints, is the Building the Education Revolution (BER) program. The dimensions of the BER program, which will be advanced in the next chapter, met the dimensions or variables for a typical case which stands for the population of cases.

As mentioned previously, case study research can be seen qualitatively, quantitatively, or even in combinations. From a qualitative approach, research focuses on the meanings and interpretation of social phenomena and social processes that cannot be experimentally examined or measured, for example, in terms of quantity or frequency (Denzin and Lincoln 2005). Moreover, some of the key characteristics of qualitative research, as emphasised by Creswell (2013), are the study is conducted in a natural setting, the researcher is the key instrument, involves multiple methods of data, involves complex reasoning through inductive and deductive logic, focuses on participants meanings, involves an emergent design, is reflective and interpretive, and presents a holistic account. Similarly, Creswell (2013) asserts that qualitative research is conducted to explore a problem or issue. It is also conducted when a researcher needs a complex and detailed understanding of an issue that requires talking directly to people, to identify variables that cannot be easily measured, when a researcher wants to understand the contexts or settings of a phenomenon, and develop theories when existing theories do not capture the complexity of the problem being examined. In contrast, quantitative studies involves the collection of data in numerical form, and analysis of casual relationships between variables (Denzin and Lincoln 2005).

Yin (2014) also states that ‘how’ and ‘why’ questions are likely to favour a case study approach. This is also reinforced by Denzin and Lincoln (2005) statement that qualitative researchers tend to seek answers to ‘how’ questions, which creates and gives meaning to a social phenomenon. The qualitative nature of this research, being the aim to investigate factors that influence organisational strategic decision-making (social phenomenon), on the implementation of the BER program including constituent projects of the program (the ‘case’), combined with the ‘how’ questions makes it ideal for an explanatory qualitative case study research methodology to answer the research questions. According to the Encyclopedia of Case Study Research (2010, p. 371) explanatory case studies use both ‘qualitative and quantitative research methods, explanatory case studies not only explore and describe phenomena but can also be used to explain causal relationships and the develop theory,’ and focus on explaining a complex and single phenomenon. This is also professed by Gerring (2005), and reinforced by Yin (2014, p. 238) who states that ‘the purpose of an
explanatory case study is to explain how or why some condition came to be.' Therefore, this case study research is seen from an explanatory lens.

Although the case study approach is a distinctive form of research, there are a number of misunderstandings, or common concerns, about this research approach, including generalising from case studies, contains bias toward verification, and it is often difficult to summarise specific case studies (Flyvbjerg 2006, Rohlfing 2012, Yin 2014). Generalisation, especially the use of theory to generalise from case studies, will be discussed later. The misconception that case study contains bias toward verification is false. Flyvbjerg (2006) asserts that it is falsification not verification that characterises case study research, even though bias toward verification is general. According to the Encyclopedia of Case Study Research (2010) it is impossible to substantiate the claim that theory is universally true, but it is possible to prove theory is false by identifying contrary data. Falsification in cases studies can also inform researchers how they may or may not use the theory in other situations. Moreover, subjectivism and bias toward verification applies to all research methods (Flyvbjerg 2006). The difficulty in summarising case studies are ‘more often due to the properties of the reality studies than the case study research method’ (Flyvbjerg 2006, p. 241). More often than not, researchers also suggest that good case studies should be read as narratives – approaching the complexities and contradictions of real life (Flyvbjerg 2006).

4.5 Research Method

As outlined in the research paradigm, the researcher conducted semi-structured interviews. Transcripts and other documents were then critically analysed using a grounded theory approach, and then a modified Delphi technique (like focus group interviews, see Encyclopedia of Research Design 2010, p. 344) for validation purposes. In relation to methodological rigour, the researcher adopted the ‘natural science model’ (see Eisenhardt and Graebner 2007, Gibbert and Ruigrok 2010, Gibbert et al. 2008, Piekkari et al. 2009). This model includes four rigour dimensions of construct validity, internal validity, external validity (or generalizability), and reliability (see Gibbert and Ruigrok 2010, Yin 2014). This is further advanced in Chapter Seven.

This case study follows a single-case (holistic) design. Gerring (2007), Seawright and Gerring (2008) argue that this is appropriate under several circumstances, being, a typical case, a diverse case, an extreme case, a deviant case, and influential case. As mentioned previously, this case study is seen as typical i.e., representative of a broader set of cases on a cross-case level (Seawright and Gerring 2008), being project institutionalisation leads to the successful implementation of mega public sector infrastructure program of projects. This can have significant consequences and benefits for the implementation of future project policies. As mentioned in the problem statement, research indicates that the implementation of mega public
sector infrastructure project policies continues to fail to achieve most of their strategies and benefits. As a result, this causes tremendous loss in productivity and profitability, whilst impacting organisational performances and stakeholder morale. In addition, this is particularly valuable to researchers where the puzzle of interest lies within a case i.e., within-case mechanisms that may either confirm or disconfirm a given theory or theoretical proposition (Seawright and Gerring 2008), as was advanced previously.

Furthermore, an essential element of case study research is the process of preparation to collect evidence. Yin (2014) discusses a list of basic set of attributes for case study research, being asking good questions, being a good listener, staying adaptive, having a firm grasp of the issues being studied, avoiding bias and conducting research ethically. These desired attributes were demanding during the research process. This is mainly due to the demands of case study research on intellect, ego and emotions. During interviews, I asked relevant and penetrating questions, and as an indicator became mentally and emotionally exhausted at the end of each day of doing fieldwork. Being a good listener was also demanding as this required the assurance that responses to questions where deep, detailed and contained clarity. I also had to guide conversations by asking follow-up questions, if and when required, that pursued the topic of the research. This required the ability to read between the lines during conversations and reading documentation. Staying adaptive was less demanding as rigour was maintained throughout the research process. Having a firm grasp of the issues being studied was more demanding, as the research required a high level of detective work. This required making inferences about what had actually transpired, which required a focus on convergent evidence from interviews, documentation and common sense. Avoiding bias was less demanding, as openness to contrary evidence was maintained throughout the research process. The highest level of ethics was obtained and maintained throughout the research process, which was less demanding than the other attributes. Obtaining RMIT University ethics approval prior to conducting interviews was a key success ingredient to this attribute. A copy of the ethics application and approval letter is presented in Appendix F.

### 4.5.1 Selection of Research Candidates

An important process in developing deep and detailed data for the case study research was the selection of candidates that were involved, experienced and knowledgeable, in organisational strategic decision-making on the BER program or constituent projects of the program. Initially, a target of 33 candidates were approached with 17 candidates deciding to participate in the case study research (52 percent participation rate). I also selected key informants that were critical to the case study research. Yin (2014) defines such individuals as ‘Docs,’ which are persons who are considered more than an interviewee but as an ‘informant’ that can provide insights into a matter and give access to other potential participants who can provide corroboratory or contrary evidence. Which may also be referred to as purposive sampling (Patton 2002, Stake 2005). I advanced this with snowball sampling, via informants, to locate other research participants,
which began with interviewing an initial set of research participants. With the number of candidates, the aim is to achieve data saturation and enhance credibility during the data collection, analysis and reporting process. Saturation is the point in the data collection process where no new or relevant information emerges, which occurs during the construction of new theories (*The SAGE Encyclopedia of Qualitative Research Methods* 2008).

All candidates have sufficient experience and knowledge in organisational strategic decision-making with a BER project or a constituent project of the BER program, with an average of 13 year’s relevant professional experience within government on projects and programs. See Appendix D for a summary of the experience and knowledge of each participant. They all hold or held senior officer i.e., senior project officer or project manager or management positions in their relevant organisations. All the participants are known to the researcher. The primary reason that candidates did not participate in the case study research was a lack of time, which was conveyed by the candidates. This appears reasonable, as the research requires deep and detailed data from some participants of senior positions with limited time to commit to the research process. This is also reinforced by Carroll and Johnson (1990) assertion that research on decision-making requires high level of cooperation and time from decision makers. They further assert that when senior management are faced with decision-making research, they tend to use time demands as a convenient excuse for not participating. As Carroll and Johnson (1990) assert, I encountered these situations. In these circumstances, I minimised participant’s time demands, and made it clear why their investment of time is worthwhile. Carroll and Johnson (1990) also assert that sometimes participants can feel threatened by decision-making research. The two major reasons (Carroll and Johnson 1990, p. 107) for this are: ‘decision makers who are insecure about their performance will be concerned that they are being evaluated and may be found wanting; and secondly, the decision rules that decision makers actually use may be very different from those that say they use.’ They suggest that evaluating and replacing decision makers, and making decision rules explicit as mechanisms to deal with decision makers who feel threatened by research on decision-making. With evaluating and replacing decision makers, decision makers should feel that a model has the ability to work in partnership with decision makers, and not as a replacement to their decision-making process. A primary rationale for this is because decision-making processes are complex, dynamic and intrinsically uncertain. With making decision rules explicit, decision makers should feel that the criteria often used for making decisions, especially strategic decision-making, is controversial, which may not reflect the wider set of political constituents.
4.6 Collection of Evidence

4.6.1 Interview

The experience and knowledge of each participant was gathered through a semi-structured face-to-face interview or telephone interviews. I individually interviewed each participant, or informant, asking eight questions about external and internal environmental factors that influence organisational strategic decision-making to implement a nominated BER project. Interviews lasted between 30-74 minutes in duration with most running for about 45 minutes (see Appendix D). Interviews were also recorded when permission was granted and notes were taken. To establish interview depth and a strong trustful relationship with participants, I initially introduced myself and the topic including the purpose of the research. For example, I thanked the participant for agreeing to participate, and then discussed common project management experiences. This enabled the participant to feel more relaxed. Some interviewees were initially nervous but this subsided after about 10 minutes of interviewing, which enabled the interviewees to ‘open-up’ and talk more deeply with detailed data. I began with easy questions that are central to the research prior to asking the specific research questions to make interviewees comfortable. This also enabled the research to convey emotional understanding by empathising with the interviewees. I then went on to ask the ‘tough’ or specific research questions, which also included probing techniques to keep a discussion going, for example, clarification on a matter. Towards the end of the interviews, I thanked the participants for their time and the ideas that the interviewee shared. Additionally, I gave the participants an opportunity to continue the discussion, including adding any other insightful data, by sending the participants a copy of the transcribed interview. For example, I asked the following question: ‘Would you like me to send you a copy of the transcribed interview, so you can see if I got it straight or if there is anything you would like to add?’ The participants were also happy to have me continue the interview, if needed, at another convenient time. After finishing with a formal closing, the participant and I continued with more casual chatting – this also enabled the participant to add more information indirectly.

Telephone interviews were also conducted with three participants. This was not the preferred way to conduct initial, deep and detailed interviews, but it made sense as some participants were located in different states. Additionally, the research lacked the necessary resources to travel long distances for face-to-face interviews. However, telephone interviews were useful for follow-up questions, and when a participant’s time was limited to achieve deep and detail information. In the situation where time was limited, I organised a convenient time to finalise the interview with the participant. A noticeable problem with telephone interviews is the difficulty to sense or see visual expressions of the participants, which could have potentially enabled deeper and more detailed information.
4.6.2 Modified Delphi Technique

Similar to focus group methodologies (Morgan 1996), the Delphi technique was developed by the Rand Corporation in the 1950s to improve the use of expert opinion for policymaking following the Second World War (Demi 2012, Linstone and Turoff 2002, Loo 2002). Investigators of the Rand Corporation found that results of a Delphi survey produced better predications than roundtable discussions (Demi 2012). Basically, it is a consensus method used to enhance effective decision-making through a series of structured questionnaires (Hasson et al. 2000). Although predominately used in the nursing and health related fields (see Hasson et al. 2000, Keeney et al. 2011), the Delphi is a flexible research approach with many possible modifications (Skulmoski et al. 2007, Vernon 2009), for example, validate research outcomes (Bloor et al. 2015, Hartman and Baldwin 1995), organisational decision-making for program policy implementation (Loo 2002) and project management as a quantitative and qualitative technique (MacDonald et al. 2012). According to Loo (2002, p. 763), the Delphi technique has five major characteristics:

1. The sample consists of a ‘panel’ of carefully selected experts representing a broad spectrum of opinion on the topic or issue being examined.
2. Participants are usually anonymous.
3. The ‘moderator’ (i.e., researcher) constructs a series of structured questionnaires and feedback reports for the panel over the course of the Delphi.
4. It is an iterative process often involving three to four iteration or ‘rounds’ of questionnaires and feedback reports.
5. There is an output typically in form of a research report with the Delphi results, the forecasts, policy and program options with their strengths and weaknesses, recommendations to senior management and, possibly, action plans for developing and implementing the policies and programs.

Some of the advantages of the Delphi compared to other group decision-making methods is that it is individual based, anonymous, and independent thus panel members are not swayed by group pressures; interpersonal conflicts and communication problems are practically nonexistent; travel to a central location is not required thus avoiding travel costs and coordination problems; and, the use of successive rounds enables the moderator to build upon earlier rounds and maintain focus (Loo 2002). However, as with all applied research, particular attention must be paid to the application of the Delphi technique including establishing rigour (Hasson and Keeney 2011) and achieving consensus (Von der Graacht 2012). According to a number of scholars (Hasson and Keeney 2011, Hasson et al. 2000, Skulmoski et al. 2007), the main processes to be taken when using the Delphi are: (1) problem definition; (2) panel selection; (3) determining the panel size; and (4) conducting the Delphi rounds.
With the first process, the problem definition, the researcher determines the use of the Delphi, for example, to explore assumptions leading to differing judgements or to seek out information that may generate a consensus on the part of a respondent group. The main purpose of using the Delphi for this research project is to generate a consensus on the validity of the findings (i.e., validation purposes), in effect, it becomes a variant of ‘methodological triangulation’ (Bloor et al. 2015). Thus it can be seen as a modified Delphi technique, as it departs from the traditional Delphi (Maijala et al. 2015). With a modified Delphi, the aim varies according to the project design (e.g., predict future events, achieve consensus), which may employ fewer than three rounds (McKenna 1994). Other factors that may also vary include the provision of feedback, expertise selection, composition and size (Hasson and Keeney 2011). For this research, participants were invited to complete an online survey, subsequent the interviews and data analysis.

With the panel selection process, this requires a group of subject-matter experts (SMEs), which can either involve random or purposive sampling. Purposive sampling i.e., participants handpicked by the researcher as opposed to random sampling was adopted for this research. This was appropriate due to the researcher’s knowledge about the population based on predetermined criteria i.e., knowledge and experience with the issue under investigation, capacity and willingness to participate, sufficient time to participate, effective communication skills (Adler and Ziglio 1996, Patton 2002), and policy influence (Baker et al. 2006). Although there are no prescribed rules on a sample size, Skulmoski et al. (2007) suggest that a number of factors should be considered. These include: taking into account if the sample is heterogeneous or homogeneous, decision quality/Delphi manageability tradeoff (i.e., reduction in group error or an increase in decision quality as the sample size increases), and the internal and external verification (i.e., the way the Delphi technique is used for verification purposes). Furthermore, a heterogeneous population for a Delphi study could be between 15-30 experts and as few as five to ten for a homogeneous population (Loo 2002). Although conducting the number of rounds is variable and dependent upon the purpose of the research (Skulmoski et al. 2007), in line with the technique’s fundamental rationale, achieving consensus measurement, including group stability and rigour, are key components of the Delphi technique (Von der Gracht 2012). These processes will be further explained i.e., aligned with the specifics of the research study, in Chapter Seven on the validation of the research findings.

4.7 Case Organisations

This research was based on face-to-face and telephone semi-structured interviews with 17 participants from four organisations that were involved with organisational strategic decision-making in a BER project or a constituent project of the BER program. As stated hereinbefore, this was followed by a modified Delphi technique, where six SMEs completed a questionnaire on seven propositions that emerged and were articulated from the research findings for validation purposes. Organisations are designed with an
alphabetical code (e.g., Infra-GA, Infra-GB, etc.) known to the participants and researcher to protect the identity of the organisation, and participants were identified by a number (e.g., Participant-1A, Participant-2B, etc.) as described in Chapter Five. Participation by individuals was voluntary. Most individuals participated in the research and answered every question to provide valuable information on the phenomenon under investigation.

4.8 Research Instruments

Collecting case study evidence can come from many sources including documentation, archival records, interviews, direct observation, participant-observation, and physical artifacts (Yin 2014). A critical aspect in conducting case study research is access to information, including the researcher’s network of friends and associates for gaining entry and conducting the research. This is reinforced by Carroll and Johnson (1990, p. 43) statement that with case study research, the ability to ‘obtain “insider” information depends on the quality of the relationship between the researcher and respondents.’ I was fortunate to have worked on the BER program and a constituent project of the BER program with state government agencies. This enabled me to develop strong relations with a network of friends, and thus, an easier path of entry to conduct the research. The research instruments used in this research included the following:

Documentation

This provided a valuable source of data for case study research, especially the detailed review, interpretation and analysis of written artifacts, for example, letters, memoranda, e-mails, agendas, briefs, formal reports, and my field notes or research journal. The documents examined are either public records, semi-public records, or private records. Public records included anything that is readily available to the public, for example, government reports. There are also documents that are not completely public, which required creativity, for example, available under the relevant freedom of information legislation. I also distinguished between primary and secondary documents. Primary documents tend to be those ‘created by individuals closest to the phenomenon under study, and secondary documents those created by those not directly involved and perhaps at a later date’ (Encyclopedia of Case Study Research 2010, p. 319).

Archival records

This is an invaluable source of information as it focuses on the past and impacts the present. When used systematically with other forms of case study evidence, it can assist researchers understand organisational decision-making behaviour and processes. Archival records included written documents and internet based materials that usually have been catalogued and preserved, which allows for exploratory work. However, governments and certain organisations generally do not grant public access to their documents, and often keep certain documents archived and hidden from public. A usual way to gain access to archival records,
which are not readily available to the public, is a request under the relevant freedom of information legislation. However, this still does not guarantee access will be granted to the researcher.

**Semi-structured interviews**

This is a strategy in which I asked participants, especially key informants, a series of predetermined open-ended questions. I also develop a prewritten interview guide. This included carefully worded questions and a list of specific topics, where I moved back and forth based on the participant’s responses. The topics of the interview guide are ‘based on the research question and the tentative conceptual framework of the phenomenon that underlies the research’ (Encyclopedia of Case Study Research 2010, p. 810). Semi-structured interviews are also useful where there is a good understanding of the theoretical concepts and relationships among them.

**Modified Delphi technique**

Similar to focus group methodologies, a modified Delphi technique was used to obtain the most reliable consensus of opinion from a group of subject-matter experts (SMEs) by a series of questionnaires. These were based on propositions that emerged from the research findings, including the provision for written feedback, interspersed with controlled feedback for validation purposes (i.e., corroborate certain research findings that may have already been established).

**Physical artifacts**

This methodology used physical or cultural artefacts that were collected or observed as part of a case study. For example, agreements, policies, procedures or similar discourses that were used as ‘artifacts’ during project implementation – a tangible document ‘in-practice’ that guided organisational strategic (sense)making. Yin (2014) summaries the strengths and weaknesses of the four sources of evidence as depicted in table 4-3.

**Table 4-3: Strengths and Weaknesses of Evidence Sources**

<table>
<thead>
<tr>
<th>Source of Evidence</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation</td>
<td>Stable – can be reviewed repeatedly</td>
<td>Retrievability – can be difficult to find</td>
</tr>
<tr>
<td></td>
<td>Unobtrusive – not created as a result of the case study</td>
<td>Biased selectivity</td>
</tr>
<tr>
<td></td>
<td>Specific – can contain exact names, references, and details of an event</td>
<td>Reporting bias</td>
</tr>
<tr>
<td></td>
<td>Broad – can cover a long span of time, many events</td>
<td>Access – may be deliberately withheld</td>
</tr>
</tbody>
</table>
Improving the Link between Project Management and Strategy to Optimise Project Success

<table>
<thead>
<tr>
<th>Source of Evidence</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archival records</td>
<td>[Same as those for documentation] Precise and usually quantitative</td>
<td>[Same as those for documentation] Accessibility due to privacy reasons</td>
</tr>
<tr>
<td>Interviews</td>
<td>Targeted – focuses directly on case study topics Insightful – provides explanations as well as personal views</td>
<td>Bias due to poorly articulated questions Responses bias Inaccuracies due to poor recall Reflexivity – interviewee gives what interviewer wants to hear</td>
</tr>
<tr>
<td>Direct or participant observations</td>
<td>Immediacy – covers actions in real time Contextual – can cover the case’s context Insightful into interpersonal behaviour and motives</td>
<td>Time-consuming Selectivity – broad coverage difficult without a team of observers Reflexivity – actions may proceed differently because they are being observed Cost – hours needed by human observers Bias due to participant-observer’s manipulation of events</td>
</tr>
<tr>
<td>Physical artifacts</td>
<td>Insightful into cultural features Insightful into technical operations</td>
<td>Selectivity Availability</td>
</tr>
</tbody>
</table>


However, there are challenges with individual interviews with participants, or with self-reports. The main objective of researching organisational strategic decision-making is to produce useful information. This requires the information to be relevant, sufficiently detailed, reliable and valid. According to Carroll and Johnson (1990, p. 33) some threats to the usefulness of participant’s responses to the interview questions on decision-making are:

- In the process of remembering what they did in any specific instance, they may have forgotten parts of the decision.
- They may be reconstructing the decision process by using what they usually do or what they are supposed to do, rather than reporting what they actually did.
- They may be rationalising by creating a logical story or saying what they think the audience wants to hear, instead of the truth.

Carroll and Johnson (1990) discuss these challenges in more detail. With remembering, individuals often have difficulty retrieving memories, especially accurately, over time as it fades, and are unwilling to exert
the necessary effort to recall memories of the decision-making process. With reconstructing, individuals tend to reconstruct their memories from fragments, images and general knowledge, when they cannot recall accurate details of an event – thus they are reconstructing judgements and not reporting the actual decision-making process. With rationalising, individuals do not always tell the truth, which is partly the result of an accurate recall of the problem rather than deliberate misrepresentation. Carroll and Johnson (1990) suggest that informal self-reports, such as case studies, are highly plausible methods to obtain accurate details of the decision-making process. They further suggest that for self-reports to be valid it should be as close to the phenomena as possible, the phenomena should establish a strong memory as being important, and for the questions to be asked in an order that facilitates accurate recall. This requires the interviewer to reconstruct the phenomena so as to aid recall from participants, as described in section 4.6.1 Interview, and use multiple sources of information (and detective work), such as the triangulation of data.

4.9 Triangulation of Data

Triangulation is an attempt to fix an in-depth understanding of a phenomenon (Stake 2005). Triangulation has generally been considered in the research literature as a process of using multiple perceptions to fix, position and confine a position of knowledge between two points, which is able to be verified by repeating an observation or interpretation (Stake 2005). However, in social research, triangulation is used in a less literal sense. Stake (2005, p. 454) assert that ‘by acknowledging no observations or interpretations are perfectly repeatable, triangulation serves also to clarify a meaning by identifying different ways the case is being seen.’ This implies that triangulation helps to identify different realities, and thus reduce bias and improve convergence. Yin (2014) distinguishes four types of triangulation that enables converging lines of inquiry:

1. *data triangulation*, whereby data are collected from different sources
2. *investigator triangulation*, whereby different researchers independently collect data and compare results
3. *theory triangulation*, whereby different theories are used to interpret the same data set
4. *methodological triangulation*, whereby multiple methods of data collection are used

There are also various sub-types of triangulation that researchers may use, for example, various combinations of qualitative and quantitative research designs (Creswell 2014), such as a modified Delphi technique (Bloor et al. 2015). However, Yin (2014) pertains to data triangulation as a preferred approach to strengthen the construct validity of case study research as it encourages the collection of multiple sources of information aimed at corroboration of the findings. Despite such a position, Cox and Hassard (2005) argue that it is also important to recognise that the emphasis on stabilisation and capture derives from positivism, where knowledge is hard, real and capable of being transmitted in tangible form. They further
assert that ‘convergent findings can allow greater research confidence in the reliability and/or validity of results, whereas divergence can lead to greater definition and theoretical elaboration as the researcher attempts to piece together many pieces of a complex puzzle into a coherent whole’ (Cox and Hassard 2005, p. 112). Although these positivist assumptions have been subject to continuous debate, especially in organisational studies, it is important to consider postpositivism assumptions, which assumes that ‘reality’ is only ‘imperfectly and probabilistically apprehendable’ (Cox and Hassard 2005). These assumptions have important implications for triangulation. Under a positivist assumption, Cox and Hassard (2005) assert that research can converge on the ‘true’ state of affairs, and under postpositivism, emphasis is placed on falsifying rather than verifying, being that theory can never be logically proved to be an accurate or ‘true’ view of what it explains. Furthermore, Richardson and Pierre (2005, p. 963) argue that researchers have moved from plane geometry or triangulation to light theory and crystallisation:

For postmodernist texts is not the triangle-a rigid, fixed, two-dimensional object. Rather, the central imaginary is the crystal, which combines symmetry and substance with an infinite variety of shapes, substances, transmutations, multidimensionalities, and angles of approaches. Crystals grow, change and are altered, but they are not amorphous…. What we see depends on our angle of response.

However, Cox and Hassard (2005) do not dismiss or reject triangulation to obtain a ‘true’ picture of phenomena, but present a different way to consider triangulation. The first of these strategies is to follow nomothetic lines and search for convergent patterns based on theoretical proposition(s). For example, based on testing a series of hypotheses, or proposition(s), developed from the literature review, qualitative data can then be analysed for recurrent patterns across different sources of information. The second strategy is to take an ideographic overview of content generated from research participants. For example, to stand back from the data and look for patterns and typifications not from nomothetic, but from a multidimensional scaling or using qualitative techniques from a content analysis of metaphors used by participants. Finally, the third strategy is to find an angle where the researcher not only enters the picture by chooses to adopt a partial view. They further argue that a shift is needed from the ‘triangulation of distance’ tradition to a more reflexive consideration of ‘researcher distance,’ where the focus is on the metaphorical space within the triangle and the micro-practices involved in making true, thus encouraging less dualistic thinking and innovative ways of thinking. As previously mentioned in section 4.3 Research Paradigm, this research will adopt an interpretivist worldview with an ontological stance, and rethink the lines and angles of enquiry, to adopt a more reflexive consideration of the researcher stance, as depicted in figure 4-3. By adopting this research stance, I can strengthen the construct validity of the case study.
4.10 Summary

This chapter provided a detailed description of this study’s methodology and research design. Firstly, it discussed the overall benefit of a PhD as a vehicle for research. One of the important contextual features was me as a researcher. Subsequently, this required some explanation of my experience and background which provided valuable and unique insights into the study. Following, the worldview of the researcher was established being interpretivist worldview with an ontological stance. As this research aims to understand the true reality i.e., factors that influence organisational strategic decision-making within a public sector mega program of projects context, and explores ‘how’ questions, the case study as a methodological approach was considered most appropriate. This is able to create and give meaning to a social phenomenon (Yin 2014), which is applicable to the phenomenon under investigation in this study. The research method was then discussed including the conduct of semi-structured interviews, analysis of transcripts and other documents using a grounded theory approach, and a modified Delphi technique for validation purposes. Methodological rigour was also discussed including the ‘natural science model’ as a validation approach. Following, the participant sample was made up of 17 purposefully selected individuals. The collection of evidence was then employed including interviews, documentation, archival records and physical artifacts. Finally, the triangulation of data was discussed as a process to fix an in-depth understanding of the phenomenon and strengthen the construct validity of the case study research.
CHAPTER FIVE: THE CASE STUDY

5.1 Introduction

Chapter Five Prologue

What the previous chapter did:
The methodology and research design discussed the research context, paradigm, methodology and the case study approach in conducting this research.

What this chapter does:
Discusses and describes the case study and organisations selected as case studies. This includes the background of the Building the Education Revolution (BER) program, agencies and actors, and their relationships in implementing the BER program.

What the remaining chapters do:
- Chapter Six will provide the data analysis and interpretation of the case study.
- Chapter Seven will provide the validation of the case study research through a few mechanisms.
- Chapter Eight will provide evidence and reflections of the research process.
- Chapter Nine will provide the findings, insights and recommendation for practice and future research.

This aim of this research is to investigate factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. Particularly, with a focus on the muddled and strategic context i.e., complex, dynamic, plural and emergent properties of organisational strategic decision-making, intertwined in often unforeseen ways between different agency and actor (inter)actions. The researcher believed that a better understanding of this phenomenon would enable project managers to implement an effective governance mechanism at the front-end of project policies to eradicate potential ‘hijacking’ of the project shaping process. It is therefore essential to have a good understanding of the public-sector project policy environment in which the organisations operate. Further as discussed in Chapter Three, the decision-making process is a critical factor within an organisational context. This chapter starts by describing the Building the Education Revolution (BER) program and a constituent project under the program. The rationale for choosing the BER program is because it met the dimensions or variables for a typical case which stands for the population of cases. Such as implementation complexity, particularly intangible complexity. Organisational stakeholders, from the Prime Minister, Premiers and
Chief Ministers to education authorities made a rapid decision to implement the program in a complex, and almost chaotic, environment. This included the consideration of internal and external factors on the decision-making process that was intertwined between different agency and actor (inter)actions. Governments had to work in a partnership, otherwise, Australia would have potentially fallen into a recession. Furthermore, the program is bound in controversy, including policy and legislative failure, factional interests, value for money outcomes, manipulation, bureaucracy, cost and time overruns with demoralising effects (Lewis et al. 2014). Such phenomena can be seen as Machiavellianism (Howard 2005, Jones 2010, McConnell 2010). The chapter then goes on to describe the organisations that were selected as organisational case studies. It provides a general background of each organisation including its program implementation plan (if applicable), roles and responsibilities. This information forms the platform for data analysis and interpretation in the next chapter.

5.2 Building the Education Revolution (BER) Program

The global financial crisis in 2008 led the Australian government to deploy a number of stimulus measures including the Building the Education Revolution (BER) – Primary Schools for the 21st Century program (around 24,000 infrastructure projects for about 9,500 schools). The global financial crisis caused severe loss of consumer and business confidence around the world. According to the Australian National Audit Office (2010, p. 36) the International Monetary Fund summarised the situation as follows:

The world economy is entering a major downturn in the face of the most dangerous financial shock in mature financial markets since the 1930s.

The Australian economy was widely expected to fall into recession. In response to the global financial crisis, many governments around the world used fiscal measures to support employment and economic recovery. The Australian Government used a number of fiscal stimulus measures to improve the adverse effects on the global financial crisis on the Australian economy including the Economic Security Strategy; Council of Australian Governments Funding Packages; Nation Building Package; Nation Building and Jobs Plan; Nation Building Infrastructure Measures; and Jobs, Training and Youth Transitions Package (Australian National Audit Office 2010). The packages were aimed at delivering a broad range of short, medium and long-term stimulatory measures, including investment in schools. The Nation Building and Jobs Plan, hereinafter called the plan, was the single largest stimulus package announced by the Government at AUD $42 billion. According to the Australian National Audit Office (2010, p. 36) in announcing the plan, the then Prime Minister outlined the importance of a rapid response to the global financial crisis to what he described as ‘an unfolding international and national economic emergency:'
For nation building to work, it’s got to be translated into real projects on the ground and translated onto the ground quick smart. Therefore, what we’ve done today is agree on a timetable for implementation for what will be the single biggest school modernisation program of the Commonwealth in the nation’s history… In my original discussion with the Premiers and Chief Ministers at the beginning of the meeting today, I said that we were in uncharted, unprecedented times … It won’t be just business as usual for our bureaucracies. We are in a national economic emergency and we’re going to have to all roll our sleeves up and take a direct, personal, and rolling interest in the implementation of this … I want to see our schools right across the country become new centres of economic activity as we all deal with the challenge which the global economy has presented our nations with.’

The main aims of the plan were to stimulate the economy by supporting employment and growth, and foster a more resilient Australia with the BER program being the largest component of the plan (Council of Australian Governments 2009b). According to the Australian National Audit Office (2010, p. 39) the Commonwealth Government decided on school-based infrastructure spending because it had a number of elements that supported stimulus objectives, including:

- It has the advantage of providing stimulus to almost every population area of the country, as the economic slowdown was expected to be geographically widespread.
- School land is available immediately without the need for planning approval, hence no planning delays were envisaged.
- School infrastructure projects have low import content, which raises domestic stimulatory effect.

The Commonwealth Government committed funding of AUD $14.7 billion over about three years to provide new educational facilities and refurbishments in Australia to meet the needs of 21st century students and teachers through the program. According to the Building the Education Revolution (2009a, p. 2) program guidelines, the three elements of the program were:

1. Primary schools for the 21st century – AUD $12.4 billion for all Australian primary schools, K-12 schools (primary school component) and special schools to build new iconic facilities such as libraries, multipurpose halls or classrooms, or to upgrade existing facilities.
2. Sciences and language centres for 21st century secondary schools – AUD $1 billion for the construction of new science laboratories or language learning centres.
3. National school pride program – AUD $1.288 billion for all schools in Australia, government and non-government, for funding for minor capital works and maintenance projects.

The Guidelines also state that the main objectives of the program were to:
1. Provide economic stimulus through the rapid construction and refurbishment of school infrastructure.

2. Build learning environments to help children, families and communities participate in activities that will support achievement, develop learning potential and bring communities together.

Furthermore, the purpose of the program guidelines was to assist states, territories and block grant authorities and schools (being non-government schools) to submit project proposals for funding under, and arrangements for the administration and delivery of, the program. The program was delivered through cooperation among federal, state and territory governments and the non-government education sector. The Department of Education, Employment and Workplace Relations (DEEWR), hereinafter called the program owner (PO), a Commonwealth Government agency, was responsible for program implementation and dealt directly with 22 state and territory education authorities, hereinafter called the education authorities or program owner representative (POR), across Australia but not with individual schools. The education authorities were responsible for working with schools and school communities to develop and submit project proposals to the PO, manage and report on funded construction and refurbishment projects.

### 5.2.1 Funding

According to the Building the Education Revolution (2009a) funding allocations to each state, territory and block grant authority was calculated on the basis of enrolment numbers as of February 2009 census data collected by the Commonwealth Government, as outlined in Table 5-1.

**Table 5-1: Indicative Project Funding Allocations Per School**

<table>
<thead>
<tr>
<th>School Size (Full-Time Equivalents)</th>
<th>Indicative Project Funding Caps</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 50</td>
<td>$250,000</td>
</tr>
<tr>
<td>51 to 150</td>
<td>$850,000</td>
</tr>
<tr>
<td>151 to 300</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>301 to 400</td>
<td>$2,500,000</td>
</tr>
<tr>
<td>401+</td>
<td>$3,000,000</td>
</tr>
</tbody>
</table>

*Source: Building the Education Revolution (2009a, p. 5).*

For funding eligibility, all Australian primary schools were eligible as prescribed under the *Schools Assistance Act 2008* (the Act), non-government schools must be a block grant authority and be in receipt of General Recurrent Grant Funding as prescribed under the Act. In addition, each school must agree to the starting and completion dates for building as prescribed for each funding round of the Primary Schools for the 21st Century element of the program, further discussed below. School closures, amalgamations, new
schools, and schools with multiple campuses were also considered for funding allocations. Some of the conditions for funding included:

- That schools with multiple campuses will be treated as a single school.
- Each school must maintain its current and planned investment in capital for the next four years in addition to its program funding.
- Design templates or configurations must be used by education authorities wherever possible.
- New buildings and refurbishments should incorporate sustainable building principles wherever possible.
- Schools must agree to provide access at no cost, or low cost, to the community its libraries and multipurpose halls.
- Project costs may include the demolition of buildings.

In addition, the Building the Education Revolution (2009a, p. 7) states that funding, on a priority basis, will be as follows:

2. Construction of new multipurpose halls or, in the case of smaller schools, covered outdoor learning areas.
3. Construction of classrooms, replacement of demountables or other buildings to be approved by the Commonwealth.
4. Refurbishment of existing facilities.

If a school applies for funding that is not the first funding priority, then it must provide a reasonable explanation for why it is not seeking funding for that priority.

The Commonwealth Government was also responsible for the allocation of funds for the Primary Schools for the 21st Century. Funding to the education authorities was arranged across three funding rounds with 20 percent of eligible schools to apply for funding in round one, 40 percent of eligible schools to apply for funding in round two, and 40 percent of eligible schools to apply for funding in round three, as depicted in table 5-2. Under round one, construction must commence no later than June 2009, no later than July 2009 for round two, and no later than September for round three. Also, all projects must be completed no later than March 2011. Milestone payments were 25 percent on commencement; 25 percent on milestone one; 25 percent on milestone two; and 25 percent on completion. For projects less than $0.85 million, payments were 50 percent on commencement and 50 percent on completion.
Furthermore, as depicted in table 5-2, there were established timeframes for the commencement and completion of the BER Primary Schools for the 21st Century projects. Particularly, smaller schools were to complete projects within seven months and projects undertaken by larger schools were to be completed within 18 months.

Table 5-2: Project Funding for BER Primary Schools for the 21st Century

<table>
<thead>
<tr>
<th>Round One: 20 per cent of Eligible Schools</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Month/Year</strong></td>
<td><strong>Action</strong></td>
</tr>
<tr>
<td>February-March 2009</td>
<td>Education authorities assess proposals</td>
</tr>
<tr>
<td>By 10 April 2009</td>
<td>Education authorities submit project lists to Commonwealth for approval</td>
</tr>
<tr>
<td>May-June 2009</td>
<td>Commencement of projects</td>
</tr>
<tr>
<td>20 December 2010</td>
<td>Projects completed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Round Two: 40 per cent of Eligible Schools</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Month/Year</strong></td>
<td><strong>Action</strong></td>
</tr>
<tr>
<td>April 2009</td>
<td>Education authorities assess proposals</td>
</tr>
<tr>
<td>By 15 May 2009</td>
<td>Education authorities submit project lists to Commonwealth for approval</td>
</tr>
<tr>
<td>June-July 2009</td>
<td>Commencement of projects</td>
</tr>
<tr>
<td>31 January 2011</td>
<td>Projects completed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Round Three: 40 per cent of Eligible Schools</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Month/Year</strong></td>
<td><strong>Action</strong></td>
</tr>
<tr>
<td>June 2009</td>
<td>Education authorities assess proposals</td>
</tr>
<tr>
<td>By 10 July 2009</td>
<td>Education authorities submit project lists to Commonwealth for approval</td>
</tr>
<tr>
<td>August-September 2009</td>
<td>Commencement of projects</td>
</tr>
<tr>
<td>31 March 2011</td>
<td>Projects completed</td>
</tr>
</tbody>
</table>

*Source: Building the Education Revolution (2009a, p. 4).*

With the BER Sciences and Language Centres for 21st century secondary schools, education authorities were to submit project proposals to the PO by May 2009, and demonstrate their readiness and capacity to build facilities by 30 June 2010, as depicted in table 5-3. Treasury allocated AUD $1 billion in funds for around 500 buildings with similar Primary Schools for the 21st Century element funding conditions being applied.
With the National School Pride program, funding was provided across two funding rounds with 60 percent of eligible schools to have access to funding in 2008-09 (round one), and 40 percent of eligible schools to have access to funding in 2009-10 (round two), as depicted in table 5-4. Treasury allocated 60 percent of school funding for the 2008-09 financial year, and the remainder based on two milestone payments: 50 percent upon commencement and the remaining 50 percent payable upon completion. Similar Primary Schools for the 21st Century element funding conditions were applied.

Table 5-3: Project Funding for BER Science and Language Centres for the 21st Century

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>March-May 2009</td>
<td>Education authorities assess proposals and create short-list of projects</td>
</tr>
<tr>
<td>By 31 May 2009</td>
<td>Education authorities submit project lists to Commonwealth for approval</td>
</tr>
<tr>
<td>July 2009</td>
<td>Commencement of projects</td>
</tr>
<tr>
<td>30 June 2010</td>
<td>Projects completed</td>
</tr>
</tbody>
</table>

Source: Building the Education Revolution (2009a, p. 8).

According to the Building the Education Revolution (2009a) the main objective for the strict timeframes was to ensure that the program had the greatest impact on job support, therefore it was critical that construction commenced rapidly. The Building the Education Revolution (2009a, p. 3) also states that ‘projects which are unable to demonstrate their ability to be completed within the specified timeframe will not be funded.’

Table 5-4: Project Funding for BER National School Pride Program for the 21st Century

<table>
<thead>
<tr>
<th>Round One: 60 per cent of Eligible Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month/Year</td>
</tr>
<tr>
<td>February-March 2009</td>
</tr>
<tr>
<td>24 March 2009</td>
</tr>
<tr>
<td>April-May 2009</td>
</tr>
<tr>
<td>20 December 2010</td>
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<table>
<thead>
<tr>
<th>Round Two: 40 per cent of Eligible Schools</th>
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</thead>
<tbody>
<tr>
<td>Month/Year</td>
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<tr>
<td>March-April 2009</td>
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</table>
The National Partnership Agreement

The Prime Minister of the Commonwealth of Australia, and the Premier of every State and Territory, hereinafter called the states, signed the National Partnership Agreement on the Nation Building and Jobs Plan: Building Prosperity for the Future and Supporting Jobs Now, hereinafter called the national partnership agreement, to facilitate coordination, monitoring and delivery of timely economic stimulus through building prosperity for the future and supporting jobs now (Council of Australian Governments 2009b). The national partnership agreement involved:

a) Support for implementation and monitoring of the nominated commitments through new National Coordination arrangements, reporting to the Council of Australia Governments (COAG).

b) A process overseen by Heads of Treasury and reporting to COAG through the Ministerial Council for Federal Financial Relations to ensure the maximum additional benefit is derived from new infrastructure and stimulus measures.

c) The commitment by all jurisdiction, within a best value approach, to give priority in contracting and tendering arrangements to businesses that have a demonstrated commitment to adding or retaining trainees and apprentices.

d) Facilitation payments by the Commonwealth for Social Housing and Building the Education Revolution.

All parties executed the national partnership agreement on the same day, being 5 February 2009, which recognised that the Commonwealth and the states had mutual interest in the timely delivery of additional economic stimulus to address the current global financial crisis. The expiration date of the national partnership agreement was 31 December 2012, or earlier by agreement. In addition to boosting demand and supporting employment over two years, and adding to the productive capacity of the economy in the longer term (outcomes), the parties agreed with the following outputs:

a) Governance arrangements for overseeing, monitoring and implementing the nominated commitments through National Coordination arrangements, and Heads of Treasuries arrangements for reporting expenditure.
b) Around 20,000 new housing units and repairs and maintenance to around 2,500 existing public housing dwellings, providing stimulus to the building and construction industry, and growth the not-for-profit sector.

c) New, upgrading, and refurbishment of education facilities.

d) Additional Black Spot safety projects; additional regional road maintenance; and other similar road projects.

e) Other commitments agreed by the parties.

5.2.3 Roles and Responsibilities

To realise the objectives and commitments of the national partnership agreement, the role of the Commonwealth was to provide financial contributions to the states. The role of the states was to implement the national partnership agreement, maintain expenditure and provide financial contributions as identified within the respective bilateral agreements or implementation plans. Furthermore, the Commonwealth agreed to work in partnership with the states, including:

- Establishing monitoring mechanisms to facilitate problem solving for swift implementation of the stimulus package.
- Participate in consultations.
- Plan and implement implementation plans.
- Reach prior agreement on the nature of any events or other publicity relating to activity under the agreement.
- Identify and share best practice (i.e., knowledge sharing) across all parties to the national partnership agreement.
- Provide sufficient data to enable effective planning and a thorough evaluation of outcomes.

In relation to responsibilities, the then Prime Minister of Australia was delegated responsibility for the coordination mechanism (i.e., oversight of the delivery of significant infrastructure and stimulus commitments). The then Treasurer was delegated responsibility for the monitoring mechanism (i.e., coordination and monitoring principles for additional funding to the states). The then Minister for Education, Employment and Workplace Relations was delegated responsibility for the approved bilateral agreements or other implementation plans (i.e., the Building the Education Revolution program). Within the states, Premiers and Chief Ministers had the same responsibilities as the Prime Minister. State treasurers had the same responsibilities as the Treasurer, and ministers for the state education portfolio had the same responsibilities as the Minister for Education, Employment and Workplace Relations. See figure 5-1 for responsibilities under the BER program.
5.2.4 Performance Benchmarks and Indicators

The Commonwealth and the states agreed to follow coordination and implementation arrangements i.e., oversight and monitoring, for example, project slippage, cost overruns and project delivery that may impact key infrastructure and stimulus measures. Report on expenditure and output benchmarks i.e., states to report every three months and sanctions for non-compliance, for example, making assessment public, return shortfall in expenditure or halt further funding. Lastly, meet key milestones as set out in bilateral agreements or implementation plans for the program i.e., construction of major and minor infrastructure in schools within the prescribed funding and timeframes, creation of jobs through the construction, refurbishment of minor and major infrastructure, complete projects on time and within allocated funds.

5.2.5 Governance

Considering the unprecedented complexity and the web of interconnected relations needed to implement and achieve the objectives of the plan, COAG, the PO and the PORs implemented robust governance arrangements (see figure 5-2).

According to Building the Education Revolution (2009b) the role of the coordinators-general, appointed by the Commonwealth and by each state, is to undertake an analysis of economic indicators relating to the impact of the plan in stimulating the economy by supporting employment and growth. They will meet fortnightly to support and monitor implementation of the key infrastructure and stimulus measures across all elements of the plan, and then report to Council of Australian Governments quarterly on implementation of the plan. Coordinators of each state and territory will ensure co-ordinated project management and...
delivery of that element. The Heads of Treasuries' and Ministerial Council for Federal Financial Relations responsibilities are expanded to include monitoring state expenditure in all areas of the plan. This is critical to ensure that the plan provided additional stimulus to the economy.

With the BER governance arrangements, the BER National Coordinator, eight state and territory and 14 BGA Coordinators represented the BER Coordinators Group (the group). The group met frequently to report on the progress, share ideas and experiences, and resolved issues and logistics. Each state and territory Coordinator also reported to the Coordinator-General in their jurisdiction for monitoring purposes. The National Coordinator is a Group Manager within the Commonwealth, responsible for strategic policy decisions, issue resolution, strategic risk management, stakeholder management and quality control. The National Coordinator also reported to the Deputy Secretary of the Schools Cluster and to the Minister for Education, and communicated with the Commonwealth internal audit committee and implementation subcommittee, convened the BER Coordinators Group and provided briefings to the Commonwealth Coordinator-General’s Office. The relationship between the Commonwealth, the education authorities, and the schools for the program implementation is depicted in figure 5-3. As mentioned previously, the Commonwealth was responsible for managing the program at a national level, and the education authorities were responsible for delivery of the BER projects in schools i.e., state level. This included liaising with schools and school communities about BER projects and oversee delivery of BER funding and projects.

Figure 5-2: The Nation Building and Jobs Plan Governance Arrangements. Figure from the Building the Education Revolution (2009b, p. 2).
5.2.6 Program Management

The program was delivered in line with the Australian National Audit Office’s best practice program management principles, and approved project management implementation plans that were submitted by the education authorities. The Commonwealth also had extensive experience in the delivery of large funding programs and utilised that expertise in developing the program management policies, which included the roles and responsibilities and governance arrangements, as described in the previous section. The program management policies covered reporting obligations, risk and issues management, program assurance, communications and ICT support. With the reporting obligations, the BER National Coordinator reported on status, outcomes and progress of the BER implementation to stakeholders within the governance model, see figure 5-3. According to the Building the Education Revolution (2009b, p. 9), the education authorities provided monthly reports to the BER National Coordinator covering the following:

- The status of each BER project, identified by name and DEEWR school number – ranging from ‘not yet commenced’ to ‘commenced,’ then ‘progressing’ and ‘completed’.
- Expected timing of project milestones.
- Actual expenditure and contracted commitment for each project.
- On commencement of a project, or at the time of contracting, average daily numbers of on-site workers for the duration of the project, broken down by Indigenous and non-Indigenous apprentices and trainees and Indigenous and non-Indigenous other works.

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**Figure 5-3: BER Program Implementation Relationships. Figure from Building the Education Revolution (2009b, p. 7).**
On completion of a project, the sustainability aspects incorporated in the building and community access details for the P21 element of the BER program.

With risk management, the Commonwealth developed a risk management plan identifying risks, assessments of their likelihood and the consequence on the program. The risk management plan was captured in the PO’s RisKMan system and overseen by the Business Management Committee. There was also a complaints process which was controlled by the National Coordinator, a corporate support system to assist with communications (i.e., implementation of a communications strategy to support the effective delivery of the program, for example, websites, e-bulletin, ministerial announcements, funded projects via an interactive map, monitor media articles), and an information and communications technology system ICT (i.e., dedicated ICT team to develop, test and deploy monthly progress reports; distribute user manuals and update education authorities to use a share point system, assist with assurance assessments). The Commonwealth also developed a monitoring and performance information framework and plan for quality assurance. Its purpose was to monitor implementation of the program by education authorities and assess the extent to which they meet their identified priorities and achieved their objectives. Assessments included:

- Analysis of monthly reports from education authorities to monitor and assess BER implementation, including project progress and expenditure.
- Desktop monitoring of a sample of documents from education authorities, such as project contracts, invoices and payments to schools.
- Analysis of information provided by education authorities annually via statements of income and expenditure and annual audits.
- On-site monitoring visits with education authorities to check that obligations under funding agreements are being met, such as management of funding and payments, recordkeeping, branding and recognition requirements.
- On-site visits to a random sample of schools to monitor project progress (Building the Education Revolution 2009b, p. 11).

5.2.7 Implementation Plans

In line with the national partnership agreement, the education authorities were required to develop and submit implementation plans to the Commonwealth for the program by March 2009. According to Building the Education Revolution (2009b, p. 38), the implementation plans explained how each education authority intended to:

- Call for, assess, priorities and select school infrastructure projects under NSP, P21, SLC for submission to the PO.
- Fast track application and assessment outcomes.
• Manage applications from schools marked for closure or merger.
• Manage each project.
• Ensure every school could maximise its opportunities under the BER, and assist smaller or less resourced schools to participate.
• Use design templates.
• Incorporate sustainable building principles into construction, refurbishments and maintenance;
• Achieve broad community consultation.
• Ensure new refurbished buildings in primary schools would be available for community use at no or low cost.

In addition, they had to develop a governance structure to implement the program in their state or territory. This usually involves the establishment of a BER project office or project team or enlarging an existing team, which was headed by a senior executive or senior executive group of the organisation. Table 5-5 provides a summary of information based on pre-determined categories provided to the Commonwealth on the implementation of the program by participating agencies in this research study.

5.2.8 BER Constituent Project

The BER program also initiated a state government infrastructure constituent taskforce project, otherwise known as a temporary ‘action team’ (Engwall and Svensson 2001, Hollenbeck et al. 2012, Jacobsson and Häggren 2016), that was of high political importance and intangible complexity. The approximate value of the project was AUD $1 billion and about AUD $500,000 in project scope. It was initiated in April 2010 and ceased in October 2012 with a change in state government leadership. The action team, which included highly experienced, knowledgeable and powerful stakeholders (i.e., ministers, executives, senior government project managers, senior external project managers from a large international consultancy firm, and a dedicated team of solicitors) had to rapidly deliver the project by the end of October 2012, just prior to the state government elections: a deadline of seven months.

The rationale behind the initiation of the infrastructure constituent project taskforce was seen as opportunistic i.e., state government officials saw they could potentially generate significant funding from the project for other government project priorities, including but not limited to, significant cost overruns associated with the program. If the state government could generate these funds prior to the November 2010 state government elections, and generate social and economic spillover effects, it could potentially enhance and legitimise the state government’s image, and thus lead to greater political stability, support, and their survival prospects. However, it led to their demise. Subsequent to the demise of the government, the project continues today [at the time of writing] under a new government with the underlying principle to generate significant funding to strengthen the state finances. This includes the
**Table 5-5: State Government BER Implementation Plans**

<table>
<thead>
<tr>
<th>BER Implementation Plan Categories</th>
<th>Infra-GA BER Implementation Plan</th>
<th>Infra-GC BER Implementation Plan</th>
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<tbody>
<tr>
<td><strong>Commencing Projects</strong></td>
<td>With the ‘Primary schools for the 21st century’ component: Principal briefing sessions to outline process, timeline and standard designs; distribution of the chief executive’s advice on process; preparation of fact sheets on programs; preparation and distribution of electronic application pro formas including instructions; schools required to identify their priorities; Infra-GA to review school submissions; Infra-GA to identify Round 1 project proposals and contact Principals and obtain their agreement to the proposal. Confirm use of standard design as suitable for their state; and, Commonwealth government priorities to be applied in the planning of projects. For ‘Science and language centres for 21st century secondary schools’: Schools with secondary enrolment to apply using similar process as per Primary Schools for the 21st Century above. For ‘National school pride program’: As per Primary Schools for the 21st Century; site will be provided with</td>
<td>With the ‘Primary schools for the 21st century’ component: Projects for immediate implementation: the state government has a well-developed process to work with schools and communities to plan and fund school infrastructure, it will leverage off existing building processes (i.e., projects that are already well advanced in relation to planning and approval processes will proceed in the first round of each element of the BER), and it will manage proposals against a set of assessment criteria, including state of project readiness, consistency with the program guidelines and extent that capital investments are driven by education needs and improved strategies. Selecting future projects: Infra-GC’s regional network leaders (RNL) have responsibility for implementing the school improvement agenda by leading and managing a network of schools to improve the educational offering and performance of all students within the network, which will inform the projects to be delivered under the</td>
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</table>

a. Primary schools for the 21st century.  
b. Science and language centres for 21st century secondary schools.  
c. National school pride program.
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<th>BER Implementation Plan Categories</th>
<th>Infra-GA BER Implementation Plan</th>
<th>Infra-GC BER Implementation Plan</th>
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<td></td>
<td>life cycle data on key infrastructure elements for consideration and inclusion in their priorities; and, sites requested to be reviewed against Commonwealth program guidelines and Infra-GA’s policies and program guidelines.</td>
<td>program. Each region has also commenced consultation with primary and special schools to establish local priorities and filter for the size and scope of proposals. For ‘Science and language centres for 21st century secondary schools’: The state is well positioned to provide quality applications for accessing funds under the science and language centres for the 21st century secondary schools program. In line with the Primary Schools for the 21st Century process, each region will undertake a short period of intensive consultations with secondary schools to establish local priorities and provide a filter for the focus and scope of proposals. Infra-GC’s project-based unit will also assess regional priorities to develop a statewide proposal for Commonwealth government assessment and approval. For ‘National school pride program’: Implementation of the National school pride program will leverage off an existing school asset maintenance system to assist in confirming where funding will be allocated. Round 1 includes fast tracking stimulus for immediate priorities, where each school will submit a list of works to be undertaken, with implementation being monitored using the asset maintenance system as well as the</td>
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<td>BER Implementation Plan Categories</td>
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<tr>
<td><strong>What strategies will be used to fast track application and assessment outcomes?</strong></td>
<td>Electronic forms and instructions have been developed and circulated to Principals; fact sheets have been developed and made available via the asset services website; advice is provided via Principal Association Chat Rooms; assessment checks will be limited to key strategic direction/requirements for each site; guidelines have been provided to Principals to make application process easy; and, Round 1 projects have been identified corporately based on the ability to utilise and build standard designs.</td>
<td>Commonwealth government system. Round 2 includes addressing important maintenance works. RNL will be critical in delivering the BER, particularly assessing and fast tracking proposals. The will undertake consultation with schools to establish local priorities and will feed data into an established Program Management Office (PMO), which will priorities proposals into appropriate funding rounds. Additional staff will be employed to assist this process. To meet the tight timeframes, the education authority, in partnership with schools and regional offices, will modify its traditional design and procurement processes. Infra-GC will draw heavily on its established series of design footprints which has guided recent government infrastructure projects. Infra-GC is developing a number of standard school templates. Schools will select from these footprints and consultants will finalise the design in consultation with the school.</td>
</tr>
<tr>
<td><strong>Outline how you will manage applications from schools marked for closure or for merger?</strong></td>
<td>Amalgamation, merger and closure of schools in the state is a voluntary process; known closures/mergers (next 2-3 years); sites will be supported with the purchase of</td>
<td>The government’s parameter is that no government school will be forced to close, hence there are no schools marked for closure. However, schools can</td>
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### BER Implementation Plan

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<tr>
<th>Categories</th>
<th>Infra-GA BER Implementation Plan</th>
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<td>equipment/resources that add to existing teaching and learning programs prior to closure. The equipment/resources will transfer to the new site. Sites considering voluntary closure/merger; and, Infra-GA is liaising with Principals/Governing Councils to strategically plan facilities requirements for the long term. The outcome of these discussions will be incorporated into site submissions.</td>
<td>choose to merge or consolidate if their school communities agree. In relation to the BER, RNL will work with those schools that are listed as being part of a future regeneration project to determine if their capital needs can be met through the BER.</td>
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### Project Management

**What ongoing project management of each project will be offered?**

- National School Pride: projects will be managed locally by the Principal. They are able to access the state’s facilities management contract; and Primary Schools/Science Labs/Language Centres: Infra-GB to co-ordinate project delivery via specially designed contracts, Infra-GA to monitor contractor performance/project delivery, Infra-GA to monitor program delivery, Principal to monitor local project delivery.

- To oversee the implementation of the BER, Infra-GC has developed a new project board and associated governance arrangements. This project board will provide high level oversight of the BER implementation and will feed into the PO Oversight Group structure.

- To implement the three programs Infra-GC will employ new program managers, design consultants, project managers, finance and communication officers as required. In particular, individual teams will be established to implement all three programs. Each team will have a dedicated program manager, program administrators, project management and design service providers and delivery service providers. These teams
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<tr>
<td>What project management approach will be adopted?</td>
<td>Primary Schools/Science Labs/Language Centres: State government structure has been established to oversight all programs and projects; Infra-GB plan to utilise a head contractor arrangement with Design and Construct contracts for a group of geographically located projects; Infra-GB has a pool of experienced project managers to be assigned to the contracts; and, Infra-GA has a pool of major project coordinators to liaise and support sites with the process.</td>
<td>Infra-GC has a well-established and successful approach to asset project management. Most the management of Infra-GC’s capital works program is managed by a private provider. The program management approach for the primary schools and science and language centre elements will be based on the existing implementation of the <em>Managing Successful programmes</em> methodology from the UK. Under this structure, the program managers will need to:</td>
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Chapter Five: The Case Study

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<th>BER Implementation Plan</th>
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<tr>
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- Apply Managing Successful programmes
- Liaise with senior Infra-GC’s management
- Manage program stakeholders
- Lead the program team
- Supervise the program team and consultants
- Ensure excellent program communications
- Prepare and present key program documents
- Source and recommend selection for program service providers
- Work collaboratively with Infra-GC’s staff and staff of other service providers

Program management for all rounds will be delivered within a central PMO covering both capital works and maintenance and minor works. Detailed project management for significant projects will take place, with three to five organisations to be engaged and project management services being provided on a regional basis. Project management would include detailed planning and scheduling of works. Infra-GC has confidence that the proposed approach, which builds on Infra-GC’s existing successful project management
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<tr>
<td>How will you ensure every school can maximise opportunities under the BER? How will you assist smaller or less resourced schools/communities to participate?</td>
<td>Infra-GA has implemented the following: Premiers Conference held for all Principals and Governing Council Chairpersons, all Principals have been invited to attend information sessions, information has been distributed to sites and published on the asset services web site, planned use of electronic forms with detailed instructions, expansion of Infra-GA’s asset support centre to respond to enquiries, and local choice to access the state government’s facilities management contract.</td>
<td>The state government has a well-developed process to support best practice capital development in all school communities, with the aim of maximising opportunities and outcomes. As such, BER implementation will leverage existing structures. All state government schools will be made aware of the state government implementation of the BER through central office electronic circulars and direct communication with regional level staff.</td>
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<tr>
<td>Building</td>
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<tr>
<td>List design templates to be used (and attached copies for the Commonwealth), or if design templates are not being used why this is reasonable and appropriate.</td>
<td>(Infra-GA provided a list of five design templates used previously, new design template, and two design templates under development)</td>
<td>(Infra-GC provided the Commonwealth with its standard design templates that it will utilise for BER projects)</td>
</tr>
<tr>
<td>How will sustainable building principles be incorporated into construction, refurbishments and maintenance, wherever possible?</td>
<td>Sustainable building principles are incorporated into standard designs; and in addition, it is proposed that solar panels will be incorporated where practical.</td>
<td>Infra-GC has existing standards for incorporating sustainable building principles including ecologically sustainable development program guidelines.</td>
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### BER Implementation Plan

#### Categories

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<tr>
<td><strong>The Community</strong></td>
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<td>Outline the steps to be taken to achieve broad community consultation, including incorporating the views of relevant Principals, Parents and Citizens or Parents and Friends groups, on work to be undertaken.</td>
<td>Briefing sessions on the project have commenced as per the following: Premier’s Conference of Principals and Governing Council representatives, Regional Principal/Leaders seminars, construction industry briefing undertaken by Infra-GB, Principals consult with the Governing Council in the selection of projects to be identified in their proforma response, and Principal Associations are able to contract senior education authority officers for clarification of any emerging issues.</td>
<td>The state government will take full responsibility for liaising on funding allocations and projects under its share of the BER. The state government commits to working in partnership with parents and communities. As such, community consultation is already a fundamental principle that underpins any capital investment.</td>
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<tr>
<td>Outline how you will ensure new and refurbished facilities in primary schools will be available for broad community use at no cost or low cost.</td>
<td>The state government already has a policy position of allowing after-hours access to facilities, and local schools sets hire charge rates to recover at least direct costs (utilities). These can be waived by the Government Council in special circumstances.</td>
<td>Infra-GC is committed to promoting schools as community hubs, which includes sharing school facilities with the broader community. Processes are already in place that help facilitate partnerships ranging from basic hire agreements to formal joint use arrangements.</td>
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<td><strong>Data Entry</strong></td>
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<tr>
<td>Will you undertake entry on your school projects?</td>
<td>From the proposed implementation plan, Infra-GA partnered with Infra-GB to deliver the program, who will be discussed next.</td>
<td>A dedicated PMO was established to implement a previous school-based infrastructure plan. The PMO will be expanded to manage all the data requirements for the BER. The PMO will:</td>
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<td>a. If yes, how will this be achieved?</td>
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<td>Or</td>
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<td>b. If no, how will you ensure your schools meet all data entry requirements as required?</td>
<td></td>
<td>• Maintain data to monitor, analyse and advise on the delivery of the BER</td>
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<td>• Provide data on individual projects</td>
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<td>• Develop data scorecards and progress reporting for Infra-GC’s project board and State Coordinator</td>
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<td>• Undertake high level data costing and analysis</td>
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<td>• Manage capital budget and reporting</td>
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<td>• Develop records to demonstrate compliance with obligations under the bilateral agreements.</td>
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<td>School will be required to:</td>
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<td>• Provide timely and accurate data on the delivery of projects</td>
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<td></td>
<td>• Update the school maintenance system, and</td>
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<td>• Advise of any potential issues that may arise</td>
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*Source: Infra-GA and Infra-GC Private Correspondence.*
reinvestment of the funds into building new educational facilities, hospitals and other services. The next section describes the organisations that were selected as organisational case studies including a general background of each organisation i.e., its roles and responsibilities, and governance framework for the program.

5.3 Agencies and Actors

As mentioned previously, the researcher engaged in purposeful sampling, which according to Tracy (2013, p. 134) means that a researcher ‘purposefully choose data that fit the parameters of the project’s research questions, goals, and purposes.’ This enables the researcher to capture cases that are ‘information-rich’ for in-depth study (Patton 2002), especially for implementation of public policies (see Palinkas et al. 2015). Information-rich cases are those from which one provides a great deal about issues of central importance to the purpose of the research. However, this is constrained by what is practicable, including gaining access to organisations and organisational actors, availability and willingness to participate, knowledge and experience, resources to support the study, and the ability to clearly communicate experiences and opinions (Palinkas et al. 2015, Patton 2002, Saunders 2012). Taken together, and as suggested by Patton (2002), all the participants were chosen according to predetermined common criteria, which is as follows:

- Possess knowledge and experience on the implementation of the BER program including constituent projects of the program.
- Actively involved with program implementation, including organisational strategic decision-making which was potentially influenced by external and internal environmental factors.
- Able to provide information that is both detailed (depth) and generalizable (breadth) i.e., ‘information-rich’ cases (Patton 2002).
- Able to potentially recommend other information-rich key informants or critical cases i.e., snowballing (Patton 2002).
- Potentially willing to participate as subject-matter experts (SME’s) in modified Delphi technique to validate findings.

These criteria insured that all cases were consistent with this research questions, goals and purpose. There were no exclusion criteria. Based on the hereinbefore criteria, all agencies and actors, besides one participant whose information was not taken forward in the research, fulfilled the predetermined common criteria. However, prior to providing a background on the participating agencies (or organisations), it is well worth delving into the different organisational archetypes or temporary organisational forms. According to Lundin et al. (2015) the three most common organisational archetypes are:
• Project-based organisations: business is primarily carried out in projects, such as, infrastructure and construction.

• Project-supported organisations: projects are tied to the internal parts of the organisation, such as, research and development organisations as producers of complex products and services.

• Project networks: projects are embedded in networks of relationships, such as, government agencies that are part of a larger project ecology or system i.e., inter-organisational or interpersonal projects.

Although each organisational archetype has its ‘own distinct set of characteristics, in some cases, there is no absolute border between the three’ (Lundin et al. 2015, p. 25). For example, project-based organisations may be part of a project network in which project-based organising dominates. Furthermore, although the focus on such organisational forms is on ‘actors establishing, maintaining, and discontinuing temporary structures, typically, the outcome of such efforts are hybrids containing a mix of temporary and permanent structures,’ which includes the three most common organisational archetypes, and where temporariness is centre stage along with the unique dynamics of the change (Bakker et al. 2016, p. 1705, emphasis in original). The summary of organisational archetypes provides a good foundation for the remainder of the research study – that is, background of each agency, their relationships on the program, and the data analysis and interpretation.

5.3.1 Background of Infra-GA

Infra-GA is an education authority that was responsible for implementing the BER program in its state (otherwise known as a hybrid project network organisation). It’s core purpose is to provide educational services. It had a dedicated project-based organisation (or unit) with the main purpose to provide school-based infrastructure and financial services. This included the development and implementation of infrastructure and finance strategies, policies and procedures. It also provided services to the organisation’s central and regional offices, government schools in the areas of finance and resourcing, procurement, project management, information and technology, environmental and infrastructure support. In hindsight, it had a high level of (inter)actions with other government agencies, schools and school based communities.

5.3.2 Background of Infra-GB

Infra-GB is a state government agency that partnered with Infra-GA to deliver the program (otherwise known as a hybrid project network organisation). It was responsible for managing procurement and construction of major projects for the program. As it was not an education authority, it was not responsible for implementing the program in its state. It’s core purpose was to provide infrastructure, transport and planning works to the people of the state. Specifically, with the program, Infra-GB provided an integration of services associated with the procurement of the program including:
Chapter Five: The Case Study

- Development and implementation of the procurement model
- Development and implementation of the engagement strategy with the industry
- Development of standard and site specific designs
- Development of contracting strategy and contract documentation
- Managing tendering and contracting processes
- Monitoring and reporting on progress of projects including recordkeeping
- Payment of contractors and invoicing of Infra-GA

Infra-GB’s role was led by an executive director with two project managers, one from Infra-GB and one from the private sector, leading the management of the various streams of activities. A program management office, with a mix of in-house and contract resources was established specifically to support the program. Infra-GB also identified key stakeholders for the program, being five other government organisations within its state, a private building industry, schools and their communities. There was a high level of community integration. Therefore, it had an established and deeply imbedded relationship with Infra-GA on the implementation and management of school-based infrastructure projects.

With governance arrangements, Infra-GB and Infra-GA jointly established and developed a specific governance model for the program, see figure 5-4.

This included an executive steering committee to ensure consistency in approach across the program and included the chief executive from each organisation, a program director of Infra-GA, an executive director of Infra-GB and the deputy chief executive of Infra-GA. The executive steering committee provided a high-level oversight of policy and strategic matters relating to the program. It also monitored the progress of the program and was responsible for escalating strategic matters to the State Coordinator-General for the national partnership agreement.

To achieve the strict program timeframes, Cabinet introduced regulations that empowered the Coordinator-General to rapidly approve development applications. The usual local council consultation process was waived for the program, which at times, can take years to approve. Consultations with key external stakeholders were held to contribute to the determination of industry capacity, procurement methodologies and development of pricing and program benchmarks. Briefing sessions were also held with all school Principals to advise them of the program including the standard designs and budgets to assist in determining each project’s scope.
Figure 5-4: Infra-GA and Infra-GB BER Program Governance Framework. Figure adapted from Infra-GB Private Correspondence.

5.3.3 Background of Infra-GC

Infra-GC is a similar education authority as Infra-GA that was responsible for implementing the program in its state (otherwise known as a hybrid project network organisation). It’s core purpose is also similar to Infra-GA to provide educational services. It also had a dedicated project-based organisation (or unit) as Infra-GA with the main purpose to provide school-based infrastructure and financial services. This included the development and implementation of infrastructure and finance strategies, policies and procedures. It
also provided services to the organisation’s central and regional offices, government schools in the areas of finance and resourcing, procurement, project management, information and technology, environmental and infrastructure support. Therefore, it had a high level of (inter)actions with other government agencies, schools and school based communities.

It also agreed to implement the program within its state in accordance with the conditions and rapid timeframes prescribed by the Commonwealth. The project-based unit was responsible for delivering the program. The acting executive director of Infra-GC’s was the delegated BER State Coordinator, and the assistant general manager of the project-based unit was an alternative contact. As an education authority under the program, its roles and responsibilities included working with schools and school communities to develop and submit proposals for BER projects to the PO, to manage the construction and refurbishment projects that were funded, and monitor and report project progress to the PO.

5.3.4 Background of Infra-PA

Infra-PA is a private organisation that partnered with Infra-GC to deliver the program (otherwise known as a project-based organisation). It is a global organisation of designers, planners, engineers, consultants and technical specialists offering a broad range of professional services. It also has a long-established partnership with Infra-GC on the delivery of education-based infrastructure projects. The procurement of Infra-PA enabled Infra-GC to swiftly meet the Commonwealth government’s expectations. This included immediate mobilisation of an experienced program management team, active program management strategies, and the ability to commence working with project management firms within two weeks of engagement. With the program, Infra-PA was responsible for the management of almost three-thousand school construction projects to the value of about AUD $2.5 billion, which included about 1,200 primary school projects ranging from AUD $100,000 to more than AUD $3 million, 70 secondary science and language centres and about 1,500 school maintenance projects.

Infra-PA also developed a co-ordinated procurement strategy comprising standardised tender and contract documentation, which enabled construction work to be spread across the state. Considering the high-level consultation process for the program, Infra-PA worked closely with Infra-GC in large briefing presentations to contractors and construction material manufacturers and suppliers. A major responsibility of Infra-PA was to gather accurate data and monitor the financial and construction status of more than 2,000 projects, and provide the Commonwealth with monthly reporting data. Infra-PA also designed and implemented a SharePoint system to monitor the status of all the school construction projects in real time. The system also enabled the monitoring of sub-programs, detailed status reporting, expectations and risk analysis. From program design to the application of PMO concepts, Infra-PA implemented Managing Successful Projects (MSP) principles, governance and transformational flow processes. MSP is a UK Office of Government
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Commerce methodology. The governance model for the program between Infra-GC and Infra-PA is depicted in figure 5-5.

![Figure 5-5: Infra-GC and Infra-PA BER Program Governance Framework. Figure adapted from Infra-GC Private Correspondence.](image)

**5.3.5 Background of Infra-PB**

Infra-PB is a private organisation that partnered with Infra-GC and Infra-PA to deliver the program (otherwise known as a project-based organisation), see figure 5-5. It is a firm of project, program and portfolio managers offering a broad range of professional project management services to government and non-government organisations across Australia. It’s areas of expertise includes strategic advice, risk and audit, business analysis, change and communication, project management, and organisational agility. As well as being a pre-qualified state government supplier of services, it has a well-advanced partnership with Infra-GC, providing years of project and program management services.
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5.3.6 Background of Infra-PC

Infra-PC is a professional services firm responsible for providing legal services for the constituent BER taskforce project. It is a commercial law firm providing specialist legal expertise, supported by in-depth industry knowledge to government and non-government organisations across Australia. It’s areas of expertise includes commercial and corporate advisory, commercial litigation, commercial real estate, construction and projects, employment law and workplace relations, financing, intellectual property, planning and environment, taxation, wills and estates. As well as being a pre-qualified state government supplier of legal services, it has a well-established partnership with Infra-GC, providing years of legal advisory expertise. In addition, it was part of the infrastructure project taskforce team and steering committee providing strategic legal advice on project matters. It continued to provide legal services until the partial dissolution and redefinition of the constituent BER taskforce project, being October 2012.

5.3.7 Background of Infra-PD

Infra-PD is a professional services firm responsible for providing project management services for the constituent BER taskforce project. It is an international advisory firm providing specialist services to government and non-government organisations. It’s areas of advisory expertise includes strategy formulation and execution i.e., opportunities and risks involved with the implementation of strategies to achieve client strategies and benefits. As well as being a pre-qualified state government supplier of such services, it has a well-established partnership with Infra-GC providing years of advisory expertise. In addition, it was also part of the infrastructure project taskforce team and steering committee providing project management services and strategic advice. It also continued to provide strategic advisory services until the partial dissolution and redefinition of the constituent BER project, being October 2012. The governance framework for the constituent BER taskforce project is depicted in figure 5-6.

5.4 Agency and Actor Relationships

Similar to organisational social network analysis, which focuses on the relationships between agencies and actors, the embeddedness of social (inter)actions, structural patterning, and the utility of network connections (see Kilduff and Brass 2010 for a deeper understanding of organisational social network research and analysis), the researcher developed a framework to explain in graphical and narrative form the BER program agency and actor relationships, see figure 5-7. Although the research questions look deeply into the phenomena under investigation i.e., human behaviour and (inter)actions, the framework provides a peripheral impetus explanation of the agency and actor structural relationships. For example, the first research question aims to understand external factors that influence organisational strategic decision-making on the implementation of mega public sector program of projects. From the figure, we can see that each agency or actor has a different program governance structure i.e., levels of (inter)actions that
influences, or is interdependence on, its partnership(s) with other actors, and making strategic decisions, in implementing the BER program. Such a multi-organisational governance structure or network also influences the internal organisational environment and thus performance outcomes (Provan and Kenis 2008). Having an understanding of governance networks, ‘irrespective of whether it is from bottom-up or

![Diagram of Constituent BER Program Taskforce Project Governance Framework](Infra-GC Private Correspondence).

**Figure 5-6: Constituent BER Program Taskforce Project Governance Framework.** Figure adapted from Infra-GC Private Correspondence.

a product of strategic decision-making made by network participants or government actors’ is important so as we can better understand how networks function to produce certain outcomes (Provan and Kenis 2008, p. 229). This is also advocated by Van Popering-Verkerk and Van Buuren (2016) who stress that understanding of multilevel decision-making i.e., organisational interactions, in a governance structure is imperative for a better decision-making environment. Thus, such an agency and actor relational framework is an impetus for the research aim, objectives and questions.
5.5 Summary

This chapter provided a detailed description of the Building the Education (BER) program and a constituent taskforce project under the program. This included funding allocations of the program, the national
partnership agreement, roles and responsibilities of the Commonwealth and the education authorities, performance benchmarks and indicators for the program, governance and program management principles. Additionally, it provided a description of the implementation plans submitted by participating agencies in the case study, a detailed description of the agencies and actors background including their relationships in governing program implementation.
6.1 Introduction

Chapter Six Prologue

What the previous chapter did:
Discussed and described the case study and the organisations selected as case studies. This included the background of the Building the Education Revolution (BER) program, agencies and actors and their relationships in implementing and delivering the program.

What this chapter does:
Provides the data analysis and interpretation of the case study. This includes grounded theory as the analytic strategy, an inductive top-down approach to theorising, and entering a dialogue for the refinement of extant theory.

What the remaining chapters do:
- Chapter Seven will provide the validation of the case study research through a few mechanisms.
- Chapter Eight will provide evidence and reflections of the research process.
- Chapter Nine will provide the findings, insights and recommendation for practice and future research.

This aim of this research is to investigate factors that influence organisational strategic decision-making on the implementation of a mega public sector infrastructure program of projects. Particularly, with a focus on the muddled and strategic context i.e., complex, dynamic, plural and emergent properties of organisational strategic decision-making, intertwined in often unforeseen ways between different agency and actor (inter)actions. The researcher believed that a better understanding of this phenomenon would enable project managers to implement an effective governance mechanism at the front-end of project policies to eradicate potential ‘hijacking’ of the project shaping process.

This chapter presents the key findings obtained from the 17 in-depth interviews and research instruments, as well as from the modified Delphi technique were six SMEs provided validation on seven propositions that emerged and were articulated from the findings. The major finding that emerged from the case study is that strategically shaping institutional project reality aligned at the front-end with the temporary
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uniqueness of the organisational change initiative is determined by four principal factors: collective institutional leadership, informal and formal mechanisms of institutional project work, project reality, and rational agent. The following discusses the analytic strategy adopted for this study, and then a detailed discussion of the findings based on ‘thick description’ (Denzin 2001, Patton 2002) and a ‘creative story’ (Shepherd and Suddaby 2017), which includes quotations taken from interview transcripts to capture real life experiences or meanings present in the sequence of experiences.

6.2 Data Analysis

The analytic strategy adopted for this research is grounded theory (Charmaz 2005, Corbin and Strauss 2008, Corbin and Strauss 1990, Glaser and Strauss 1967), which is fundamental to case study research (Bazeley 2013, Yin 2014). This strategy is a systematic inductive method for conducting qualitative research aimed toward theory development (Charmaz 2004). See figure 6-1 for a simple model for developing grounded theory.

![Figure 6-1: Simple Model for Developing Grounded Theory. Figure by Saldana (2013, p. 53).](image-url)
In this context, induction means moving up from the detailed descriptive to the more abstract, conceptual level i.e., moving from the particular to the general (Bryant and Charmaz 2007b). Furthermore, according to Charmaz (2004, p. 441) grounded theory has considerable significance because it:

a) Provides explicit, sequential program guidelines for conducting qualitative research.
b) Offers specific strategies for handling the analytic phases of inquiry.
c) Streamlines and integrates data collection and analysis.
d) Advances conceptual analysis of qualitative data.
e) Legitimises qualitative research as scientific inquiry.

The analytic process is recursive, going through a number of interactive stages, forwards and backwards, with the aim to gain insightful understanding of the case and topic of investigation (Bazeley 2013). Bazeley (2013) defines the analytic process as ‘working with the data,’ as the researcher reads and reflects, explores and plays, codes and connects, reviews and refines, working back and forth through the various data sources. This includes all the interview transcripts and documents. This is further professed by Corbin and Strauss (2008, p. 57) who state that analysis is:

A dynamic process of generating, developing and verifying concepts – a process that builds over time and with the acquisition of data. One derives concepts from the first pieces of data. These same concepts are compared for similarities and differences against the next set of data – either expanding concepts by adding new properties and dimensions, or, if there are new ideas in the data, adding new concepts to the lists of concepts. Or, there is still a third option of revising previous concepts if after looking at the new data if appears that another term would be more suitable.

Here an analyst has to brainstorm and interact with the data (i.e., asking questions about the data, making comparisons between data, try out different ideas, eliminate some, expand on others before arriving at conclusions), and be immersed in the data to find the ‘essence’ of what participants are trying to convey. According to Bryant and Charmaz (2007a, p. 272) grounded theory ‘is not about the accuracy of descriptive units, nor is it an act of interpreting meaning as ascribed by participants in a study; rather, it is an act of conceptual abstraction.’ It requires theoretical sensitivity of the researcher: analytic temperament (i.e., analytic distance from the data, trust in preconscious processing for conceptual emergence) and competence (i.e., develop theoretical insights and abstract conceptual ideas from various data sources) (Bryant and Charmaz 2007a). This is also professed by Kelle (2007b) on the emergence of empirical data. Here a researcher does not approach the research tabula rasa but on previous knowledge, including the integration of extant theoretical knowledge (Kelle 2007a, 2007b, Wrona and Gunnesch 2015). According to Wrona and Gunnesch (2015) this ‘encourages abductive reasoning which is inextricably linked with creativity.’
Furthermore, grounded theory explains what is happening in a social setting including underlying behaviour, which usually commences after the first interview or observation.

Corbin and Strauss (2008) state, as emphasised by Bryant and Charmaz (2007a), Charmaz (2004), that the analytic process begins with microanalysis (i.e., detailed form of open coding), which complements and supplements a more general analysis (i.e., broader perspective of the data). Here an analyst breaks into the data to make sense of the materials. I did this with all the data sources including interview transcripts, documents and memos. Or in other words, the process ‘proceeds from the initial open coding of data to the emergence of a core category, followed by a delimiting of data collection and analysis for selective coding to theoretically saturate the core category and related categories’ (Bryant and Charmaz 2007a, p. 275).

Although there are many analytic tools to facilitate the coding process (e.g., dimensional analysis, focusing, various meanings of a word or phrase, drawing upon personal experience, looking at language, thinking in terms of metaphors and similes), the two analytic tools used by most qualitative researchers are: asking questions and making comparisons (Bryant and Charmaz 2007a, Corbin and Strauss 2008).

The asking questions tool is useful at every stage of the analysis, and enables researchers to ‘get off the ground’ and to probe, develop provisional answers, think outside the box, and become acquainted with the data (Corbin and Strauss 2008). For example, the who, what, where, how, and even the duration, rate, and frequency questions. A researcher may also focus on sensitising questions e.g., What is going on here? Theoretical questions e.g., What is the relationship between the concepts? and questions of a practical nature e.g., Which concepts are well developed and which are not? It also enables researchers to think about possible answers to better understand a problem from the participant’s perspective. The making comparisons tool is usually seen from two perspectives, constant comparisons and theoretical comparisons/sampling (Bryant and Charmaz 2007a, Corbin and Strauss 2008). With constant comparisons, a researcher is comparing each incident in the data with other incidents, for example, one category/theme with another to differentiate and identify properties and dimensions specific to that category/theme. With theoretical comparisons/sampling, the researcher is confused about the meaning of an incident in the data or wants to think about an event or object in different ways (i.e. a range of possible meanings), which can be derived from the literature and experience.

After taking a microanalysis or a more general analysis of the data, a researcher begins strategic analysis of the data for context, process, and theoretical integration (Corbin and Strauss 2008). Context identifies the sets of conditions in which problems or situations arise and to which persons respond through some form of (inter)action, which is similar to analysing data for concepts and categories. But how and where does an analyst look for context? According to Corbin and Strauss (2008) this involves the use of the paradigm and conditional/consequential matrix. With the paradigm, an analyst applies a set of questions to
the data to draw out the contextual factors and identify relationships between context and process. The basic components of the paradigm are: conditions (i.e., a conceptual way of grouping answers to the questions about why, where, how and what happens), (inter)actions and emotions (e.g., responses made by people to situations, problems, events), and consequences (e.g., outcomes of (inter)actions or of emotional responses to events). See table 6-1 for an example of using the conditional/consequential matrix with this data.

Table 6-1: Conditional/Consequential Matrix

(Transcribed interview excerpt)

Expert knowledge was crucial in terms of program delivery where we met our timelines because of the speed in which it was put together, and expert knowledge was crucial in terms of trying to unlock some of the difficulties where we did get into some delays. A project of this size you're going to have delays, that’s just one of the givens, the question is how long is the delay and what can you do to try and actually speed things up. I was very confident of the processes that we had in place because the regular meetings that we were having with [the other government agency] and because this was such a high-profile project we were able to get people and unlock things as we needed them.

In my memo I write:

Reinforces the point of having strong a relational framework including trust in the partner to deliver the program of projects. Perhaps this is because it is a state-to-state government agency i.e., relations, they knew each other, each other’s processes, worked together on previous projects, etc. Trust is almost ‘a given.’ But without it they may have gone through their business as usual project delivery models which would have most probably caused delays in the projects and effected program performance and outcomes. It is almost like pace of implementation ‘forced’ the state government agencies to relay on informal project steering or shaping mechanisms i.e., trust, and not so much on formal contractual relations. It almost forces you into informal program management and relational control mechanisms. This also somewhat implies that if they delivered the program their traditional way agency actors would have potentially relied on the formal way to manage the program of projects.

Conditional/Consequential Matrix Summary

The above provides an example of the conditional/consequential matrix. The rapid implementation of the BER program which was predominately based on formal governance mechanisms (condition), basically, ‘forced’ the two state government agencies to rely predominately on informal governance mechanisms i.e., competency based trust (interaction), which as an outcome enabled them to stay of the path to achieve the program strategies and benefits (consequence).
The conditional/consequential matrix enriches the data analysis by assisting the analyst sort through the range of conditions/consequences in which events are located. The ideas contained within the matrix are:

- Conditions/consequences do not exist in a vacuum (e.g., conditions are always connected through (inter)action and emotional responses).
- The distinction between micro and macro is an artificial one (e.g., most situations are a combination of micro and macro conditions and the nature of (inter)actions influence each other).
- The full range of possible interrelationships between micro/macro are not always visible to individual research participants, conditions and consequences usually exist in clusters and can associate or co-vary in many different ways.
- (Inter)action and emotional responses to events are not confined to individuals (e.g., (inter)action can be carried out by other organisational actors).

Furthermore, the coding process is an ongoing interaction and emotion taken in response to situations or problems with the aim to reach a goal (Corbin and Strauss 2008). Processes can be simple, complex or chaotic. For example, the process involved with implementing a mega public sector infrastructure program of projects, which demonstrates an individual’s, groups and organisation’s ability to give meaning to and respond to or shape the implementation process through a series of (inter)actions. It can also be analysed at the macro or micro level and broken down into sub-processes. Whatever the process or level of analysis, its main goal is to understand the interactions within a context over time. Considering context and process for data analysis, how does a researcher achieve theoretical integration or ‘gel’ the data? According to Corbin and Strauss (2008) this involves a number of steps. Firstly, an analyst needs to decide upon a central or core category (i.e., main research theme), for this research it was ‘strategically shaping institutional project reality,’ which happens as the researcher proceeds with constant comparison. Here a researcher can also use a number of aids for integration including writing a story line, moving from the descriptive story to the theoretical explanation i.e., proposition, use integrative diagrams, reviewing and sorting through memos. Once a researcher has an overarching theoretical scheme i.e., proposition, the next step is to refine the theory. This consists of:

- Reviewing the scheme for internal consistency and gaps (i.e., strong story line).
- Filling in poorly developed categories (i.e., ensure that salient properties and dimensions of categories have been identified and filled, or theoretical saturation).
- Trimming excess (i.e., under developed concepts that do not fit the theory).
- Validating the scheme (i.e., compare the raw data with the scheme or tell the story to respondents).

With the first analytic session i.e., interview or observation, a researcher should begin reading the materials from beginning to end (i.e., to feel what the participants are experiencing and telling), then writing memos
and drawing diagrams, and continue this throughout the analytic process, for example, asking questions of
the data: What is happening here? To what extent? (Bazeley 2013, Bryant and Charmaz 2007b, Corbin and
Strauss 2008, Saldana 2013). This enables a researcher to clarify processes, gain analytical distance,
distinguish between major and minor codes and categories, facilitate the generation of theory, and identify
patterns and their properties (Bazeley 2013, Lempert 2007). I adopted this rather tedious but fulfilling
approach to this research including reading and re-reading the interview transcripts and documents, deep
reflective thinking, memo writing (i.e., asking questions, making comparisons, brainstorming, creating and
changing diagrams or sketches, etc.), and used the literature extensively, for example, see figure 6-2 and
figure 6-3. According to Lempert (2007) the use of the literature during the memo process enable
researchers to participate in the current theoretical conversation, and alerts them to gaps in theorising. This
is essential to grounded theory methodology, as this enables the researcher to think analytically and transform the data into theory. Here the researcher explores, explicates and theorises emergent patterns – conceptualises the data in narrative form (Bazeley 2013, Bryant and Charmaz 2007a, Lempert 2007). This process continues (i.e., data gathering, followed by analysis, followed by more data gathering) until a category or concept reaches the point of saturation i.e., a coherent explanatory story (Corbin and Strauss 2008).

Informal Trust and Risk Relations (Subcategory), Informal Mechanisms of Institutional Project
Work (Category), Institutional Project Work (Sensemaking) (Theme), Rational Agent (Theme)

(Transcribed interview excerpt)

I think down to a deputy secretary who was highly pragmatic and engaged in program delivery but then supported by two at the time general managers; one who had a leadership role, and the other who had the operational responsibility. I think tactical level and a small power and political level, that mix never quite worked, there was never a level of trust and transparency within the organisation for it to be a well-run program. (Interview with Participant-1C)

In my memo I write:

Lack of trust and transparency affecting program environment relations especially from a hierarchical or power perspective. ‘Trust,’ ‘cultural fit’, a ‘strong sense of values or identity’ and ‘norms’ etc., which can be seen as lower level concepts or sub-concepts for a higher level concept of ‘informal mechanisms of institutional project work’ from the business as usual framework to say a project alliance framework, would have potentially delivered the program better including ‘sharing of information and knowledge i.e. ‘informal knowledge diffusion’, a sensemaking process, which can be seen as a higher level concept, subsequently and potentially led to better ‘rationalising of decisions,’ and thus a ‘rational agent,’ higher level concept. Also, the participant states the ‘conflict’ with hierarchical power relations, the literature
sees this a ‘power-over,’ subsequently, this can be seen as a lower level concept or sub-concept of ‘formal power-over’ within the program environment, which can be seen as a higher-level concept of ‘formal mechanisms of institutional project work.’ I will keep an eye on these… (i.e., refine the concepts if and when needed for better conceptualisation of the data). It will also be interesting to see how ‘formal mechanisms of institutional project work’ influences or shapes organisational strategic decision-making especially at different hierarchical levels and their dimensions. A review of the literature may also assist with these concepts.

Creating Institutional Project Relations (Subcategory), Collective Institutional Leadership (Category), Informal Mechanisms of Institutional Project Work (Category), Informal Trust and Risk Relations (Subcategory)

(Transcribed interview excerpt)

The procurement model for these were a little bit different in that the partner organisation would come up with a project, we’d work out what would be an agreed price based on their assessments and then that was basically then offered to builders and builders could agree to build it for that price, it was pretty much like that… so it wasn’t the traditional tendering style because there wasn’t time. (Interview with Participant-1A)

In my memo I write:

Interesting and wow! It is clearly evident that they had to go away from their business as usual framework to a more tailored project alliance framework aligned with the temporary uniqueness of the organisational change to deliver the program, which can be seen as a ‘creating institutional project relations’ category, which also required collective and innovative procurement thinking (perhaps a form of sensebreaking) to deliver projects within the strict timeframes – this can be seen as a higher level concept of ‘collective institutional leadership’ – I will need more information here i.e., literature review on the concept of collective institutional leadership, sensemaking, sensebreaking, and identity. This is one of the advantages of project alliancing or integration, particularly the strengthening of relations through informal governance mechanisms a category of ‘informal mechanisms of institutional project work.’ High level of ‘trust,’ which can be seen as a lower level concept of ‘informal trust and risk relations’ within the higher-level concept of ‘informal mechanisms of institutional project work’ and ‘power-to,’ which can be seen as an ‘informal power-to’ concept, was evident. So basically from here, the program entered a more informal phase of delivery. This requires further exploration with the data and literature.

Figure 6-2: Field Note Excerpts and Memos
Figure 6-3: Preliminary Diagram

Data is analysed through coding, moving through an initial stage of identification and labelling or open coding, and then a second stage of refining to develop categories or focused coding (Bazeley 2013, Saldana 2013). Open coding, or as other publications refer to as initial coding (Saldana 2013), enables ‘breaking down qualitative data into discrete parts, closely examining them, and comparing them for similarities and differences’ (Corbin and Strauss 2008, p. 102). This also provides a researcher with analytic leads for further exploration. Initial coding can also employ in vivo coding (i.e., word or short phrase from the actual language found in the data) or process coding (i.e., also named ‘action coding,’ uses gerunds ‘-ing words’ to connote action in the data). This is particularly useful for a wide variety of data forms e.g., interview transcripts, field notes, journals, documents, diaries, artifacts, correspondence (Saldana 2013). Although during open coding, some scholars recommend line-by-line coding or micro-analysis (Corbin and Strauss 2008, Saldana 2013), I believed that this was not warranted during the whole data analysis process, and on times, employed sentence-by-sentence and even paragraph-by-paragraph coding, which enabled generating codes with emergent fit to the research study (Bazeley 2013, Bryant and Charmaz 2007a, Miles and Huberman 1994). See table 6-2 for a structured account of the five-step analytical approach adopted for this research.
Table 6-2: Data Analysis Approach

<table>
<thead>
<tr>
<th>No.</th>
<th>Steps</th>
<th>Data analysis approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Familiarising with the data</td>
<td>Reading, re-reading, identification of initial ideas, transcription of interviews and documents, writing memos and drawing diagrams – capture participants’ view.</td>
</tr>
<tr>
<td>2</td>
<td>Generating initial codes and categories (open coding)</td>
<td>Codes and categories abductively generated (Kelle 2007a) based on grounded theory approach using NVivo.</td>
</tr>
<tr>
<td>3</td>
<td>Naming and making connections between categories (axial coding) or mechanisms</td>
<td>Based on codes, enriching and making connections between developed categories or mechanisms.</td>
</tr>
<tr>
<td>4</td>
<td>Refining categories and themes, or mechanisms and activities</td>
<td>On-going critical analysis to refine the specifics of each category and theme or mechanisms and activities – make sense and understand the ‘true’ meaning of the data for theory development i.e., inductive top-down theorising (Shepherd and Sutcliffe 2011).</td>
</tr>
<tr>
<td>5</td>
<td>Producing the report</td>
<td>Refining analysis, selection of compelling extract examples, final analysis of selected extracts, relating analysis back to the research question and literature, and presenting a compelling story.</td>
</tr>
</tbody>
</table>

Source: Partially adapted from Walker and Jacobsson (2014, p. 656).

Once a first round of coding (i.e., open and axial) and categorising (or conceptualising data), I revisited the data and undertook a second and third round of some recoding and recategorising – building on concepts and looking for further concepts and scrutinising concepts against further data (Bazeley 2013, Corbin and Strauss 2008). Some categories (or mechanisms) where changed, scrapped, and inadequately developed which prompted me to seek further data. During the process, I also set aside time to think about the data, the participants, and understand its ‘true’ meaning – the ‘quality’ behind qualitative research. This enabled the research to become more refined, more conceptual and abstract, as suggested by Saldana (2013).

During the coding, I went from coding, with some sub-codes, to categorising with some subcategories, and then to higher-level and more abstract constructs – themes (Bazeley 2013, Saldana 2013). This process is otherwise referred to conceptualising i.e., from lower-level concepts to higher-level concepts until sufficient data is acquired to describe each category/theme in terms of its properties and dimensions (Corbin and Strauss 2008) using abductive reasoning (Reichertz 2007). This also enables researchers to systematically interrelate the themes and concepts (or mechanisms and activities), and thus lead to the
development of theory (Corbin and Strauss 2008, Saldana 2013). See figure 6-4 for the interrelation of themes and concepts undertaken for this research.

(Transcribed interview excerpt)

Well, local MPs obviously had their buy-in, but the real problem from my point of view is you had a Federal government who had an agenda and there was State government that had an agenda. And remember, the MPs cross over, so the Federal government clearly saw it as their program, and particularly after the first year we changed government in this state, and suddenly we had a Liberal state government and a Federal Labor government, to be fair, the Liberal government here used BER program as a lever and basically said: now, I don’t know if politics had anything to do with it, or whether it was a legitimate issue they raised, they said BER wasn’t good. It didn’t stop them opening the odd school here and there, but I think when the state government came in, they transferred the management approach to principals and schools. (Interview with Participant-2C)

Mechanism/Theme
Front-End Institutional Project Work (Sensemaking): Legitimately creating, maintaining and disrupting institutional project relations aligned at the front-end with the temporary uniqueness of the organisational change initiative to achieve a sense of collective institutional leadership in the relational actor space through sensemaking. Such a process can be either enabling or constraining on relations through the activities of power, trust and control to achieve an unique temporary organising institutionalised project reality.

Activity/Category
Disrupting Institutional Project Relations Description: Legitimately or illegitimately disrupting (sensebreaking) institutional project relations, aligned at the front-end with the temporary uniqueness of the organisational change initiative, which can be either formal or informal e.g. prescribed or social ways. Also, seen as disrupting project reality through the process of sensebreaking.

Activity/Subcategory
Legitimate Disruption Description: Legitimately disrupting (sensebreaking) institutional project relations aligned at the front-end with the temporary uniqueness of the organisational change initiative, which can be either formal e.g., in line with prescribed ways – directions from a minister or a delegate, or expert ways – engineer with expert knowledge; or informal e.g., in line with social ways - changing cultural norms, values, ethics etc. Also, seen as legitimately disrupting project reality.

Codes
Formal political change in government, formal change in political agendas.
Interview notes

‘…after the first year we changed government in this state, and suddenly we had a Liberal state government and a Federal Labor government … I don’t know if politics had anything to do with it, or whether it was a legitimate issue they raised, they said BER wasn’t good…’

Figure 6-4: Interrelation of Themes and Concepts

I also adopted the software NVivo to assist with the data analysis. NVivo, an electronic coding software, efficiently stores, organises, manages, and reconfigures the data to enable analytic reflection (Bazeley 2007). Essentially, the software helps researchers to code and categorise large amounts of data, which is commonly used in grounded theory strategies (Yin 2014). During this process for each item, as suggested by Bernard and Ryan (2010, p. 99) in Saldana (2013), I specified, when possible, the following:

- Short description – the name of the code itself
- Detailed description – a 1-3 sentence description of the coded datum’s qualities or properties
- Inclusion criteria – conditions of the datum or phenomenon that merit the code
- Exclusion criteria – exceptions or particular instances of the datum or phenomenon that do not merit the code
- Typical exemplars – a few examples of data that best represent the code
- Atypical exemplars – extreme or special examples of data that still represent the code
- “Close, but no” – data examples that could mistakably be assigned this particular code

There are some noted problems associated with using computer software for coding. For example, there is a risk of creating and recording too many data in too much detail, relying on coding without taking advantage of the linking or memoing, and becoming obsessed with the task of coding which may impact reflective thinking (Bazeley 2013). I found the computer software, NVivo, highly beneficial due to it providing:

- An audit trail of the case study project
- Easy navigation of a wide variety of data sources
- An ability to link codes and categories
- An ability to add comments with emerging concepts in annotations and memos
- Visual representation of the data

This is also advocated by Sinkovics and Alfoldi (2012) on using NVivo to facilitate trustworthiness in the qualitative research process. However, the software did provide some limitations, for example, limited to word count in descriptive fields. For a detailed understanding of how researchers are using NVivo for
empirical studies see Woods et al. (2015). Figure 6-5 illustrates how this enabled a better understanding of the nodal relationships and an alternative understanding of reality that cannot be translated to words (Encyclopedia of Case Study Research 2010). In addition, see Appendix E for the NVivo nodes tree used for this research.

This relational analysis of the data i.e., mapping and understanding the relationships between key concepts, or interpreting the meaning of the data through pattern matching, a narrative form of explanation building which includes propositions, enables researchers to ‘explain’ a phenomenon, or ‘how’ or ‘why’ something happened (Yin 2014). Furthermore, these relationships enable the development of theory (Anderson et al. 2006, Bazeley 2013, Kelle 2007a, 2007b, Ridder et al. 2014, Stake 2005).

Instead of adopting the traditional mechanisms of theorising i.e., deductive, inductive or abductive, which have limitations for generating ‘new’ organisational theories, for example, theories are sometimes sterile, lack scope or generalisability (see Eisenhardt 1991, Glaser 2001, Weick 1996), this research adopted an inductive top-down approach to theorising, as suggested by Shepherd and Sutcliffe (2011). Here theorising builds on coherence theory to integrate the three traditional approaches to theorising. This is ‘informed by the literature, but it is inductive in that it begins with the data from which theory is built … [in addition] … it relies on the data themselves to speak to the theorist (through the formation of gists) to focus attention so as to detect tensions, conflicts, or contradictions’ (Shepherd and Sutcliffe 2011, p. 362). See figure 6-6 for a model of inductive top-down theorising adopted for this research.

As with other types of theorising, inductive top-down has some limitations and challenges. For example, scholars trained in certain disciplines may find it difficult to put aside preconceived notions of theory and
method in order to approach the literature with openness to generate gists. Secondly, scholars may face challenges in their contextual environments, such as university policies and accepted practices by reviewers, that may limit sources for new theories. Finally, inductive top-down is a dynamic process with an underlying principle that recognises that all theories are fallible (Shepherd and Sutcliffe 2011).

In addition and still focusing on theorising, according to Ridder et al. (2014) theory is the outcome of research which includes extending, refining and generating theory, especially from a case study perspective.

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**Figure 6-6: Model of Inductive Top-Down Theorising. Figure by Shepherd and Sutcliffe (2011, p. 366).**

He further argues that theory extension entails expanding pre-existing theoretical or conceptual formulations. Theory refinement is the modification or even negation of existing and emerging theoretical domains. Theory generation is a means of detecting new concepts or theoretical constructs. In addition, the dialogue between ‘case study findings and existing theory strives for seeking either complementarities from the study’s initial theory domain, or rather seeking dissimilarities by drawing upon theories, which go beyond the study’s initial theory domain’ (Wrona and Gunesch 2015). This is further professed by Ridder et al. (2014). Basically, theory emerges through the constant comparison between emerging constructs and relationships and extant theory (Shepherd and Sutcliffe 2011). See figure 6-7 for the different ways of positioning research findings i.e., entering a pluralistic dialogue or positioning towards the generation of new theory, or alternatively seen as *pragmatic empirical theorizing* (see Shepherd and Suddaby 2017), which was adopted for this research. Being in such a pluralistic position, that is the generation of new theory through abductive reasoning, not only advanced the management of knowledge, but enabled the development of more interesting and influential theories through problemization as a methodology (Alvesson and Karreman 2007, Alvesson and Sandberg 2011, Davis 1971).
Figure 6-7: Entering a Dialogue with Theory to Demonstrate Contribution. Figure by Ridder et al. (2014, p. 381).
Despite the widespread recognition and the importance of theorising, it is well worth delving deeper into ‘how to build theories’ (Shepherd and Suddaby 2017, p. 60, emphasis in original). Although the process has been viewed from many angles i.e., engaged scholarship, metaphor, balance between novelty and continuity, a distinct importance stands – that is, ‘compelling theories are at their core compelling stories,’ which involves the main characters, a narrative setting, an event sequence, and a plot/theme (Shepherd and Suddaby 2017, p. 60). With the main characters in conceiving and constructing theories, the focus is on identifying and naming core constructs, as they are a source of agency or causality. That is, ‘greater clarity in describing constructs and their relationships to the phenomenon of interest helps to clarify the motivations or causal relationships in the theoretical argument’ (Shepherd and Suddaby 2017, p. 68). This is also professed by Donaldson et al. (2013) for rigour in the development of sound theory i.e., clearly defining a construct and ensuring that variable $X$ affects $Y$ through $Z$. With a narrative setting, the focus is on choosing a perspective for theorizing, such as, moving back and forth between the empirical evidence and the literature i.e., the researcher constructs theory by moving between the thick description and the extant literature (Dyer et al. 1991). Another way includes crossing levels of analysis with the generalisation of theory i.e., cross-level and within-level analysis and the relationships among the theoretical constructs (Klein et al. 1994). With the story’s event sequence, the focus is on setting time to establish boundary conditions. For example, the ‘duration of periods categorised as periods of stability and change; the interplay between constructs over time reflected in mutual causation and change intensity; constructing a detailed story anchored through time (narrative strategy); or constantly comparing sets of data to gradually build a system of categories that can be linked to explain the process (grounded theory strategy)’ (Shepherd and Suddaby 2017, p. 71). And finally, the plot which holds the story together (Jameson 2001) and provides the disciplined imagination of the story. For example with anthropomorphizing (see Shepherd and Sutcliffe 2015), which provides a rich understanding of ‘humans (i.e., self and others) to (1) take a leap of faith to make a guess at an explanation of an anomaly, (2) provide insights into the mechanisms underlying the ‘how’ and ‘why’ of key relationships and insights into organizing, and (3) facilitate sensemaking as well as tap into the audiences’ knowledge of themselves and others as a communication strategy for sensegiving to tell robust stories’ (Shepherd and Suddaby 2017, p. 74). Another way is through typologies, such as, combining constructs and explaining multiple causal relationships (Fiss 2011). Taken together, in assessing theory, or theoretical contribution, Shepherd and Suddaby (2017, p. 77), drawing on Shepherd and Sutcliffe (2011), offer the following principles:

1) _A broader theory is a better theory._ A broader theory is one that explains more facts and, in doing so, provides a more coherent explanation than one that explains fewer facts.

2) _A simple theory is a better theory._ A simpler theory is one that requires the fewest assumptions and is more parsimonious. A theory is less parsimonious when factors can be deleted because they add
little additional value to our understanding. A good theory finds a balance between being overly exhaustive and overly exclusive.

3) *A theory with explicit mechanisms is a better theory.* Mechanisms offer an explanation for proposed relationships (Davis and Marquis 2005). Anderson et al. (2006, p. 102) define social mechanisms as ‘theoretical cogs and wheels that explain how and why one thing leads to another, which can run from the macro to micro (e.g., explaining the effects of organisational socialisation practices), micro to micro (e.g., social comparison processes), or micro to macro (e.g., how cognitively limited persons can be aggregated into a smart bureaucracy).’

4) *A theory with fewer acceptable alternative explanations is a better theory.* The evaluation of a theory is partly comparative in that a judge is partially influenced by the availability of alternative explanations and how good they are. A better theory is one that loosens ‘the normal science straightjacket’ to offer something new that challenges and extends existing knowledge (Davis 1971, Whetten 1989).

Furthermore, although the definition of ‘theoretical contribution’ is heavily debated within the scholarly community (for example see Alvesson and Karreman 2007, Corley and Gioia 2011, Flyvbjerg 2006, Wrona and Gunnesch 2015), a fundamental aspect still stands: the notion of contribution, which includes originality (i.e., challenge and extend existing knowledge) and utility. The insight must be seen as useful to either informed scholars or practitioners with an orientation toward prescience (Corley and Gioia 2011). This is especially applicable with case study research as findings can provide a theoretical contribution by challenging, changing or fundamentally advancing our understanding of a phenomenon or initiate new theory (Eisenhardt and Graebner 2007, Flyvbjerg 2006, Ridder et al. 2014, Siggelkow 2007).

All in all, creative theory building is ‘not the exclusive domain of elite or experienced management scholars but rather a technical craft that can be learned and applied’ (Shepherd and Suddaby 2017, p. 80), of which, is the ‘most appropriate vehicle for representing actions and events in organisations’ (Baron and Hershey 1988, p. 35). This is succinctly reinforced by Weick (1995, p. 60):

If accuracy is nice but not necessary is sensemaking, then what is necessary? The answer is, something that preserves plausibility and coherence, something that is reasonable and memorable, something that embodies past experience and expectations, something that resonates with other people, something that can be constructed retrospectively but also can be used prospectively, something that captures both feeling and thought, something that allows for embellishment to fit current oddities, something that is fun to construct. In short, what is necessary in sensemaking is a good story.
Such a view for theoretical contribution was adopted for this research – that is, the set of activities in conceiving and constructing theory, including developing the main characters (or constructs), constructing the context, and actively engaging the audience’s imagination through plots and themes towards presenting a compelling story, of which, will be discussed next.

Figure 6-8 conceptualises the ‘creative story’ that emerged from the data analysis for the successful implementation of mega public sector infrastructure program of projects. Additionally, the following are the conceptual mechanisms (or categories) and their project action-based activities (or descriptors) of the framework that capture the research questions:

**Collective Institutional Leadership (Mechanism/Category).** Achieving a sense of collective institutional leadership i.e., where organisational actors comprehend, act collectively and see the project world through the one lens – an emergent lens towards a common theme – through the (inter)actions of legitimately creating, maintaining and disrupting institutional project relations aligned at the front-end with the temporary uniqueness of the organisational change initiative. This also includes the action-meaning cycles (or project action-based activities) of sensemaking, including *prospective* sensemaking through powerful narratives, for example, an inspirational, sustainable and clearly articulated strategic intent: vision and mission statement a strategy for achieving that vision i.e., capturing the ‘power’ of key and influential stakeholders; making the right decisions within the right structure and culture i.e., temporary high performing ‘action team’; and, understanding the relational behaviour of actors to achieve desired strategies and benefits.

**Front-End Institutional Project Work (Sensemaking) (Activity/Theme).** Legitimately creating, maintaining and disrupting institutional project relations i.e., aligned at the front-end with the temporary uniqueness of the organisational change initiative, such as, an organisational response to a crisis or an unexpected event, through the action-meaning cycles (or project action-based activities) of sensemaking (i.e., sensemaking, sensebreaking and sensegiving). Such a social process can be either enabling or constraining on relations through the ‘shaping mechanisms’ of power, trust and control to achieve an unique temporary organising institutionalised project reality – that is, aligned at the front-end with the temporary uniqueness of the organisational change initiative. Taken from another perspective, from the temporarily aligned intrasubjective project reality (‘I’ am implementing the project), where such ‘shaping mechanisms’ can either enable or constrain the relational actor space towards a temporarily aligned intersubjective project reality (‘We’ are implementing the project), where such ‘shaping mechanisms’ can then either enable or constrain the relational actor space towards a temporarily aligned institutional project reality (‘the project’) – thus, achieving a state as an unique temporary organising institutionalised project reality.
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Figure 6-8: Conceptual Framework
Creating Institutional Project Relations (Activity/Category). Legitimately creating institutional project relations, aligned at the front-end with the temporary uniqueness of the organisational change initiative, with regulative or formal mechanisms (e.g., rules, program guidelines, regulations, contracts, memos, etc.) and normative or informal mechanisms (e.g., cultural, norms, values, morals, etc.). For example, contracts for PPPs or norms embedded within temporary organisations i.e., project action-based organisations, or government agencies providing goods and services i.e., hybrid project networks (otherwise known as inter-organisational projects).

Maintaining Institutional Project Relations (Activity/Category). Legitimately maintaining institutional project relations, aligned at the front-end with the temporary uniqueness of the organisational change initiative, with regulative or formal mechanisms (e.g., meetings, reporting, auditing, rules, program guidelines, regulations, memos, etc.) and normative or informal mechanisms (e.g., meetings, cultural, norms, values, morals, etc.). For example, contracts for PPPs or norms embedded within temporary organisations i.e., project action-based organisations, or government agencies providing goods and services i.e., hybrid project networks (otherwise known as inter-organisational projects).

Disrupting Institutional Project Relations (Activity/Category). Legitimately (conformity to socially constructed systems of rules, norms, values, beliefs, etc.) or illegitimately (i.e., non-conformity to socially constructed systems of rules, norms, values, beliefs, etc.) disrupting (sensebreaking) institutional project relations, aligned at the front-end with the temporary uniqueness of the organisational change initiative. For example, an illegitimate action that leads to crime or political corruption, or a legitimate action that leads to creative thinking amongst and between organisational actors.

Formal (or Regulative) Mechanisms of Institutional Project Work (Mechanism/Category). Formally governing actor or agency (inter)actions, aligned at the front-end with the temporary uniqueness of the organisational change initiative, per prescribed ways (i.e., contracts, legislation, regulations, policy, procedures, program guidelines, etc.) towards achieving project policy strategies and benefits. This also includes the project action-based activities or behaviours of formal power-over, formal power-to, and formal trust and risk relations.

Informal (or Normative) Mechanisms of Institutional Project Work (Mechanism/Category). Informally governing actor or agency (inter)actions, aligned at the front-end with the temporary uniqueness of the organisational change initiative, per social ways (i.e., norms, values, culture, morals, etc.) towards achieving project policy strategies and benefits. This also includes the project based-activities or behaviours of informal power-over, informal power-to, and informal trust and risk relations.

Rational Agent (Mechanism/Category): Minimising cognitive biases (i.e., systematic errors) in the decision-making process, aligned at the front-end with the temporary uniqueness of the organisational change initiative, based on strategic equilibrium-based reasoning, including reasons based explanations
motivating) and reason-based justifications (normative): achieving a state as a rational agent. This also includes the project action-based activities or behaviours of cognitive biases.

### 6.3 Interpretation

Figure 6-8 illustrates the researcher’s understanding of the mechanisms that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. The case study findings show that the key mechanisms to alleviate the risk of cognitive biases in rationalising decisions – a rational agent in achieving program strategies and benefits – is situated-based institutional project governance mechanisms. Achieving such a state is critical at the front-end of project policy implementation where the ‘trigger’ for sensemaking occurs i.e., discrepancies between expectations and reality, aligned with the temporary uniqueness of the organisational change initiative. Here organisational actors are constantly operating in a state of complexity, which at times can be chaotic, or ‘bounded instability’ (Kay et al. 2006), and action-meaning cycles of sensemaking – that is, ‘interpreting their environment in and through interactions with others, constructing accounts that allow them to comprehend the world and act collectively’ (Maitlis 2005, p. 21). Such ‘sensemaking moves’ are encapsulated within the processes of noticing or perceiving cues, creating interpretations, and taking action (Maitlis and Christianson 2014, Sandberg and Tsoukas 2015, Weick et al. 2005); a truly formed high performing temporary action-based project team. This enables organisational actors to comprehend the emergent project ‘terrain’ and coordinate the expectations and (inter)actions between actors in rationalising decisions. I call this phenomenon strategically governing relational actor space (inter)actions aligned at the front-end with the temporary uniqueness of the organisational change initiative. This is also seen as strategically shaping institutional project reality aligned at the front-end with the temporary uniqueness of the organisational change initiative in achieving project strategies and benefits. During this change process, organisational actors are able to tame the Machiavellianism and tribalism i.e., immoral practices, factional interests and power structures of the project world – that is, a state as a rational agent. Although this is an effortful and time consuming process for organisational actors, it is a necessity, for successful project policy implementation.

This contributes far more insight and utility than traditional governance mechanisms to co-ordinate expectations and (inter)actions between and amongst actors for project policy implementation (see Ahola et al. 2014, Biesenthal and Wilden 2014, Müller 2009, Müller 2012, National Audit Office 2008, Productivity Commission 2014, Victorian Auditor-General's Office 2012a). Where such a system is highly integrated within the principles of Machiavellianism (see Adams 1997, Bass and Bass 2008, Johnson and Duberley 2011, O'Connor 1999), or the ‘iron-cage’ of project management – that is, a low degree of actioning the uniqueness of temporary organising, or action-based entrepreneurialism (Lundin and
Söderholm 1995). The traditional decision to achieve project strategies and benefits based on temporary organising dominated by the ‘iron cage’ of project management, that is, powerful organisational decision makers (i.e., hierarchical and top-down control), and regulative governance mechanisms, corrodes the project environment and significantly increases the risk of cognitive biases in rationalising decisions. This tends to strengthen existing isomorphic institutional logics, significantly constraining the necessary temporary uniqueness needed to achieve project strategies and benefits, and thus strengthens Machiavellianism and tribalism in the project world – spreading the project plague or mal-governance to the point where governing antidotes are useless. This also leads to significant cost escalations and time overruns, impacts organisational performances and stakeholder morale, and eventually leads to the demise of government agents and agencies.

The principal mechanisms: collective institutional leadership, informal and formal mechanisms of institutional project work, project reality, and rational agent led to the conclusion that strategically shaping institutional project reality aligned at the front-end with the temporary uniqueness of the organisational change initiative is essential for the successful implementation of mega public sector infrastructure program of projects. These are now explained more fully.

Collective Institutional Leadership

The literature on strategic intent emphasises the importance collective leadership (Friedrich et al. 2009), including capturing the views of powerful stakeholders through the actions of creating, maintaining and disrupting institutional relations (Lawrence and Suddaby 2006) aligned with organisational change initiatives (Balogun and Johnson 2005, Maitlis and Christianson 2014). Strategic intent also includes developing an inspirational and sustainable vision and mission statement i.e., prospective sensemaking (Mantere 2013, Mantere and Sillince 2007, Patvardhan 2015), and a strategy for achieving that vision through a necessary leadership style (Delisle 2007, Smith 1994, Thoms and Kerwin 2007, Watkins 2009, Wensley 2003). For example, through being influenced by an institutional entrepreneur (Marti and Mair 2009, Tracey et al. 2011), especially for the achievement of project strategies and benefits (Christenson and Walker 2008, Walker et al. 2008b). Following the work by Bakker et al. (2016), Burke and Morley (2016), Carter et al. (2015), Drescher et al. (2014), Friedrich et al. (2009), Lawrence and Suddaby (2006), Uhl-Bien (2006), I define collective institutional leadership as an emergent phenomenon constructed through the purposive (inter)actions of organisational actors in creating, maintaining, and disrupting institutional project relations aligned at the front-end with the temporary uniqueness of the organisational change initiative – that is, when there are discrepancies between expectations and reality, such as, an organisational response to a crisis or an unexpected event, which ‘triggers’ the need for sensemaking. As leadership is not a ‘thing,’ but a strategic, relational and co-evolving effect institutionally constructed in individual and organisational (inter)actions. Here there are multiple realities of leadership moving through
space and time (Uhl-Bien 2006). Capturing this emergence, that is, a shared sense of group identity (Drescher et al. 2014, Haslam and Reicher 2007) or institutional logic (Thornton and Ocasio 2008) towards the uniqueness of temporary organising (Bakker et al. 2016, Burke and Morley 2016) aligned with an institutional reality (Ashforth et al. 2011, Weick et al. 2005) at the front-end of projects (or programs) is critical to achieve a relatively stable state of (inter)actions for project policy success: the means-end relationship. Such a phenomenon in the relational actor space is seen as front-end institutional project work which includes the action-meaning cycles of sensemaking i.e., sensemaking, sensebreaking and sensegiving (Ashforth et al. 2008, Maitlis and Christianson 2014) among and between organisational actors that enables interpretations and (inter)actions to comprehend the ‘changed’ project world, see Figure 6-9. This finding is contrary to existing literature on leadership that views traditional leadership as static phenomenon with formal and individualistic actions of behaviour i.e., individual agency (Lichtenstein et al. 2006, Uhl-Bien 2006), which rather still dominates the project strategy literature. This study begins to address this gap in the literature.

![Figure 6-9: Front-End Institutional Project Work (Sensemaking)](image)

What emerged from the data was a pattern of collective institutional leadership relations and its effect on achieving a relatively stable state of (inter)actions aligned at the front-end with the temporary uniqueness of the organisational change initiative – in this case study, a hybrid project network temporarily ‘changing’ from their ‘permanent’ structures to an ‘action team’ to respond to an unfolding economic emergency in Australia. This is expressed by Participant-5C, Project Manager from Infra-GC: ‘…culture was excellent, team was very good. It made it all the more worthwhile. When your team is good, that’s the most important, when you have a good team who you can ride with and run with, it makes a big difference. Your motivation
factors are very high…’ This led me to induct the constructs of creating institutional project relations, maintaining institutional project relations, and disrupting institutional project relations aligned at the front-end with the temporary uniqueness of the organisational change initiative through legitimate or illegitimate means. I define these constructs as creating/maintaining/disrupting institutional project relations through front-end institutional project work and the coevolution of distant and situated mechanisms of institutional project work to achieve an unique temporary organising institutionalised project reality. This is also seen as strategically shaping institutional project reality, the relational actor space, in alignment at the front-end with the temporary uniqueness of the organisational change through action-meaning cycles of sensemaking.

The results indicate that collective institutional leadership is in part determined by the actions of organisational actors in creating, maintaining, and disrupting institutional project relations aligned at the front-end with the temporary uniqueness of the organisational change initiative, which significantly effects achieving mega infrastructure program of projects strategies and benefits.

Creating Institutional Project Relations. The actions of creating institutions involves defining rule systems, conferring property rights, constructing normative networks of actors, collaborative co-creation and competitive convergence, and developing support for those rule systems through advocacy, theorising and educating (Zietsma and Pedersen 2009). It also needs legitimacy within the project environment to survive and thrive. Legitimacy is defined as actions within an institutional framework that are considered desirable, proper or appropriate within a socially constructed system (Scott 2014). Although it can take a number of forms or logics, the one most appropriate for the implementation of project policies is work that focuses on changing the norms or belief systems, which is embedded in communities of practice and associated with practices that parallel or complements existing institutions (Lawrence and Suddaby 2006). Here individuals transcend from the intrasubjective (‘I think’) to the intersubjective (‘we think’) to an institutionalised reality (‘it is’) (Ashforth et al. 2011). This type of work, although effortful and time consuming, which the data shows, is also the most co-operative. This is illustrated with the initial implementation of the program (or at the front-end of the program) which ‘triggered’ the need for sensemaking and unique temporary organising. The Council of Australian Governments (COAG), seen as an adversarial decision-making body operating under an ‘unanimity rule’ with insufficient policy presumptive reasoning (Painter 1996), which includes the Prime Minister, State and Territory Premiers and Chief Ministers and the President of the Australian Local Government Association, announced – in necessitarian and consequentialist rhetoric – on 5 February 2009 a funding of AUD $14.7 billion for the rapid implementation of the program. It was delivered through ‘cooperation’ among federal, state and territory governments and the non-government education sector:
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The Prime Minister, Premiers, Chief Ministers and the President of the Australian Local Government Association, together with Commonwealth, State and Territory Treasurers, held a special meeting of the Council of Australian Governments (COAG) in Canberra … to ensure rapid delivery of economic stimulus measures to support employment and growth and to foster a more resilient Australia (Council of Australian Governments 2009a, p. 1).

The Prime Minister, State Premiers, and Territory Chief Ministers also co-signed a national partnership agreement, which was labelled and untested as a new federal financial relations framework, to confirm their commitment to the implementation of the program. However, it must be stressed that the national partnership agreement was not a legally binding nor enforceable agreement, but rather a memorandum of understanding, a ‘formal handshake,’ or more accurately an ‘agreement’ based on political morals between ministers and governments. Such disjointed ‘agreements,’ with multiple, competing and deeply politicised morals or identities, especially in the Australian intergovernmental context for policy implementation (i.e., different jurisdictional responsibilities, political pressures and views of the ‘world’) are breeding grounds for post-Machiavellianism i.e., multiple players and sources of advice operating in contestable environments and competing to influence final decisions, and ‘irrationality’ in the decision-making process (Jones 2010). However, rather than dictating how things should be done, the national partnership agreement focused on achieving mutually agreed strategies and benefits, high level governance arrangements to stimulate the economy, and provided the states flexibility in the way they delivered the program (Council of Australian Governments 2009b). Basically, it was a devolved approach to program delivery (Australian Public Service Commission 2013).

Simultaneously, and following consultation with the education authorities, the Commonwealth released the program guidelines. This implies there was a coordinated, but an illusory level of sensemaking and sensegiving between the Commonwealth and states on the rules or practices for rapid program implementation. Illusory in the sense that government agencies did not have enough time to form reasoned and just arguments for or against policy implementation. Program sensemaking was restricted, as the Commonwealth promoted overarching accounts of the Australian economic issues i.e., global financial crisis in need of rapid stimulus measures i.e., the program, which the state government ministers accepted with relatively few attempts to provide alternative interpretations and courses of action. This is a typical Machiavelli trait: as ‘speakers who invoke rhetoric of necessity [necessita] generally want to push policies through against the resistance of those who demand more time to evaluate the situation, consider different courses of action, and weigh foreseeable consequences’ (Benner 2009, p. 138). Demonstrating insufficient presumptive reasoning (Blair 2012), the Commonwealth entered a state of prima facie program implementation – this could be seen as the start of program failure. These two documents were the ‘bible’ of the program. Although it was a rather effortful and time consuming process with a strong necessita partnership narrative, it enabled the swift creation of institutional program relations – a high degree of
unique temporary organising in the hybrid project network – through legitimate informal i.e., government values, norms and culture, and formal i.e., national partnership agreement and the program guidelines, relational mechanisms. This constituted the emergence of collective institutional leadership in the relational actor space. In this initial phase of the program all parties saw its implementation through the one lens: a temporary alliance lens. This action of creating institutional program relations with a rather strong *esprit de corps* is further advanced at the state government level by Participant-1A from Infra-GA, an Executive Director:

The structures and the hierarchy from a vertical level can cause major grief in projects like this and a lot of it just boils down to simple confidence from the minister down in terms of delivering a project, and you don’t want to go through enormous layers of bureaucracy to be able to get a decision made. […] when the program was announced the director of capital programs rang me and spoke to me and asked me […] to come and work on the BER […] There was a governance structure put in place and at that stage the structure for governance included Infra-GB and Infra-GA. We had the executive director meeting at another governance level with the director from Infra-GB and there were some moves to ensure that sign offs and delegations could be managed between the executive director of Infra-GA and the director of Infra-GB. There was information flow to the minister, there were regular meetings so that the minister and chief executive were kept aware so that everybody was in the know but the delegations and the decision-making was very easily had from our governance group in terms of program delivery. There was only one layer up to actually get sign off (Participant-1A).

In addition, Participant-1B from Infra-GB, a Senior Project Manager, quote reinforces this team collegiality within the concept of creating institutional program relations:

Infra-GA created their own workforce or their work team, which they were predominantly all government employees; we created the work team here, which were predominantly private sector. But, for all intents and purposes it was one team […] (Participant-1B). Similarly, Participant-1D from Infra-PA, a Principal Consultant, states that: ‘exemplary behaviour… clear strategies, good teams, tough negotiations, there was a strong sense of leadership to create different cultures across the whole program … we adopted a different culture, a fast-paced culture and environment for the program.’

The data shows that initially the program participants achieved a relatively stable state of (inter)actions through the action-meaning cycles of sensemaking i.e., creating institutional program relations aligned with the temporary uniqueness of the organisational change. For example, senior organisational actors at the state level instigated and lead change in their organisations by sensemaking i.e., questioning who are the right people or what is the right temporary ‘action team’ to deliver the program, then sensebreaking i.e., breaking-down traditional hierarchical program structures for a relatively high degree of temporary agency, and finally sensegiving i.e., creating the right institutional ‘action team’ aligned with the temporary
uniqueness of the organisational change to achieve the program strategies and benefits. Furthermore, organisational actors engaged in actions of advocacy through the mobilisation of political support at Commonwealth and state government levels, through direct and indirect techniques of social persuasion of necessity to rapidly but in a rather restricted manner implement the program. Rules for the program were defined with the creation of the national partnership agreement and program guidelines. This provided decision-making flexibility to the education authorities but also constrained institutional program relations and (inter)actions to achieve an unique temporary organising institutionalised program reality: revealing a organising weakness in the temporary uniqueness of the hybrid project networks. According to the Commonwealth, such a relational constraint is warranted to achieve the stimulatory nature of the program (Australian National Audit Office 2010). However, such a view proved to be a major program fallacy. For example, the transition from an aligned intrasubjective (‘Commonwealth implementing the program’) to the intersubjective (‘governments implementing the program’) and to a unique temporary organising institutionalised program reality (‘the stimulus program’) was illusory. Program rules were vested from the Commonwealth to the states with the reallocation of property rights, providing the states with flexibility in the way they delivered the program (a degree of ‘intersubjective program reality’). However, this still required the prior approval of the Commonwealth (overarching degree of ‘intrasubjective program reality’), with each state having to submit an implementation plan outlining their delivery approaches.

Organisational and agency actors also created new temporary institutions, which paralleled or complemented existing ‘permanent’ institutions, with the aim to change institutional logics to capture the temporary uniqueness of the program. Although organisational and agency actors were used to implementing school-based infrastructure, such traditional program management approaches were highly impracticable to the stimulatory nature of the program i.e., from ‘permanent’ organising structures to temporary organising as an unique ‘action team,’ as this was not business as usual, as the then Prime Minister related, ‘…for nation building to work, it’s got to be translated into real projects on the ground and translated onto the ground quick smart … we were in uncharted, unprecedented times … It won’t be business as usual for our bureaucracies…’ (Rudd 2009). To address the complex task and swiftly coordinate (inter)actions, organisational and agency actors created new institutions through mimicry of pre-existing program management practices: a failure in alignment with the temporary uniqueness of the program. This was more evident with the state government agencies, where they tended to mimic or juxtaposition pre-existing program management practices for rapid program implementation. For example, education authorities submitted implementation plans to the Commonwealth which tended to reference pre-existing project and program policies, standards and practices i.e., instrumental technocratic processes – revealing their isomorphic or ‘iron cage’ project management practices. Additionally, the education authorities institutionalised new rules to adopt to the stimulatory nature of the program such as flexibility in timeframes for the commencement and completion of projects, project variation approval processes, and reporting
structure. However, the data shows that such a change in temporary institutional logics – that is, creating institutional program relations aligned with the temporary uniqueness of the program was insufficient to achieve the program strategies and benefits: there was an overall collapse in the facilitation of organisational sensemaking i.e., restricted with a single and dominate interpretation of the issues, sensebreaking i.e., breaking-down traditional hierarchical program structures for a relatively high degree of temporary agency, and sensegiving i.e., juxtaposition pre-existing program management practices in endeavour to achieve the program strategies and benefits.

The data also shows that the Commonwealth and the education authorities did not sufficiently change the ‘temporariness’ of their normative associations and project networks, relying on pre-existing or ‘permanent’ normative practices, where such a change in temporary institutional logics i.e., aligned with the temporary stimulatory nature of the program, is essential for creating institutionally aligned program relationships – the ‘glue’ that connects organisational and agency actors to form a collective identity, a high performing temporary ‘action team,’ or a truly aligned institutional program reality through front-end institutional project work. Instead the Commonwealth saw the implementation of the program through their lens, their social reality – where most social processes of (inter)action were situated – with a focus on legitimising their identity. It also showed an absence, almost non-existent practice, of theorising – sensegiving – that is a strong communicative narrative, and educating actors in the skills and knowledge necessary to support the temporary uniqueness of the program i.e., an institutional entrepreneur, which is essential for the normative paradigm in changing institutions and institutional logics aligned at the front-end with the temporary uniqueness of the organisational change. This may have been due to the rapid implementation of the program to simulate the economy, but considering its scale and impact on community values and norms, it is surely no excuse. More so than not, it indicates a potential threat to organisational identity which is a precursor for powerful sensemaking (Weick 1995). The Commonwealth government’s identity, as a sovereign governing entity, could have potentially fallen if it did not ‘make-sense’ of the economic issues and rapidly implement the program through the rhetoric of necessity – more on this later.

The three forms of creating institutional work, that is, mimicry, theorising and educating focuses primarily on the cognitive side of institutions, that is the ‘beliefs, assumptions and frames that inform action by providing meaningful and understandable interaction patterns’ (Lawrence and Suddaby 2006, p. 228), thus, deeply facilitating the sensemaking process. In addition, according to Lawrence and Suddaby (2006, p. 228), ‘mimicry draws on existing patterns of action in order to articulate and legitimate new practices and structures; theorising develops concepts and beliefs that can support new institutions; and educating provides actors with the knowledge necessary to engage in new practices or interact with new structures.’ These theoretical constructs in conjunction with the data suggest that the implementation of the program had a significant normative and cognitive deficit, a poorly articulated program narrative, where most of the
rules reflected overt political or bureaucratic work: reinforcing the collapse in the facilitation of
organisational sensemaking aligned with the temporary uniqueness of the organisational change at the
front-end. This is where actors reconstruct rules, property rights and boundaries that define access to
material resources (Lawrence and Suddaby 2006). Furthermore, there was no clear articulation of a strategic
intent for the program – an inspirational and sustainable vision and mission statement – which is essential
in creating and maintaining strong institutional program relations. There was no ‘statesman,’ an institutional
leader or entrepreneur to embed the necessary temporary institutional changes including values and a
mission of the program into everyday program reality i.e., high performing temporary ‘action team’ to
achieve the program strategies and benefits. Although it can be argued that the ‘vision’ of the program was
a desire for the Commonwealth government to provide economic stimulus and reduce the effect of the
global recession – a consequentialist lens – on Australia by long term investment to improve school-based
infrastructure. The rules of the program supported this unprecedented and utilitarian intent; however, it did
not have enough substance to form an inspirational and sustainable strategic intent i.e., powerful strategic
discourse, embedded with strong normative and cultural-cognitive mechanisms for actors to work
collectively as a high performing temporary ‘action team’ towards achieving the program strategies and
benefits: a significant deficit in actioning the uniqueness of temporary organising i.e., towards an ‘action
team,’ or action-based entrepreneurialism. Though the general direction given was: charge! The explicit
end was rather open. This is a typical Machiavellian trait: send troops into battle ‘blind’ to avoid
responsibility for policy failures (Benner 2009).

Maintaining Institutional Project Relations. Similar to creating institutional project relations, with the main
difference being maintaining legitimate and institutional project relations aligned at the front-end with the
temporary uniqueness of the organisational change initiative, and thus, project policy survival. This requires
three things: manage internal consistency of the organisation, develop external support mechanisms to
maintain survival and obtain legitimacy of an organisation, and engage in actions to overcome external
enemies (Washington et al. 2008). Here the focus is on maintaining relations which underpin an institution
or institutional logic aligned at the front-end with the temporary uniqueness of the organisational change
initiative. This is achieved by adherence to rule systems i.e., enabling, policing and deterring, and
reproducing norms and beliefs i.e., valorising/demonising, mythologising, embedding and routinizing
(Lawrence and Suddaby 2006). The data shows that managing internal consistency of the program was
constraining the emergence of a collective identity and an unique temporary organising institutionalised
program reality: significantly undermining the core principles of sensemaking i.e., noticing cues, creating
interpretations, and taking action to align with the temporary uniqueness of the organisational change. As
aforementioned, the program lacked an institutional entrepreneur to articulate and enact a vision, mission
and values through powerful narratives – to cope with the program’s complexities. According to Hill and
Levenhagen (1995, p. 1057) an ‘entrepreneur must develop a vision or metal model of how the environment
works (sensemaking) and then be able to communicate it to other actors or partners and gain their support (sensegiving),’ which is imperative in maintaining strongly aligned institutional relations in times of such complex change. This lacklustre in maintaining institutional program relations aligned with the program’s temporary uniqueness is related by Participant-1C, a Senior Manager from Infra-GC:

[…] there wasn't a close working relationship amongst some of the senior people within the organisation, the governance models were fairly adversarial. There really wasn't much of a sense of shared ownership, I think there was a group of individual, parts of the organisation working alongside each other rather than working in a genuinely shared way (Participant-1C).

Similarity, Participant-1E, Senior Manager from Infra-PC, also illustrates the impact on a project mission with a weak identity in maintaining aligned program relations in the relational actor space:

It was beset by politics at every level […] there was such a conservative culture […] a culture of uncertainty and bureaucracy and process which really outweighed the way mission become embedded (Participant-1E).

Although this view tended to be rather consistent from participants – that is, a failure in sensemaking and sensegiving, and thus temporary organising, which led to failings in the organisational change initiative [this will be explained later in further detail], what emerged from the data was a pattern of adherence to rule systems through the process of enabling, policing and deterring institutional program work. These enabled actors to achieve a relatively stable state of (inter)actions i.e., instrumental technocratic processes, which significantly constrained the formation of an unique temporary organising institutionalised program reality. For example, new national coordination arrangements were created i.e., oversight group, coordinator-general and national coordinators to support program implementation. This suggests, as shown by the data, that maintaining institutional program relations aligned with the temporary uniqueness of the organisational change was predominately achieved through policing. Such a program narrative spells disaster in creating and maintaining strongly aligned institutional program relations. In this case, one must seriously question the feasibility of top-down control, or hierarchical interactions, of change programs, as those lower down in organisations i.e., project managers, are active shapers of the way initiatives develop (Balogun and Johnson 2005, Rouleau and Balogun 2011). This is illustrated in the national partnership agreement and program guidelines, and to an extent the implementation plans, which adopted robust regimes of performance monitoring, reporting and auditing. This suggests that the Commonwealth adopted a rather authoritative stance or narrative for temporary organising over the states and the education authorities. This included sanctions of public humiliation and halting funds if states failed to meet agreed funding benchmarks. The Commonwealth also demanded ongoing disclosure of project information, for example, whether projects were meeting delivery timeframes and objectives, cost overruns, advice on possible strategies and interventions to prevent any slippages. Essentially, there was a significant amount
of overseeing of work from the Commonwealth on state government agencies for implementing the program and achieving stimulus measures: a low degree of temporary agency. The role of the Commonwealth was a regulator and inspector. This tended to form coercive and constraining barriers in maintaining institutional program relations aligned with the temporary uniqueness of the organisational change or a collective program identity, which is an essential requirement of sensemaking for such a temporary organisational change i.e., comprehend the world and act collectively. Such coercive mechanisms tend to stem from external pressures, as aforementioned, to conform and gain legitimacy i.e., threat to organisational identity, which may actually deinstitutionalise acts, thus questioning the validity of the legitimation of an institution (Mollering 2006). Such constraining work is more visible and apparent than cognitive or normative work. However, at the state level, organisational and agency actors infused normative practices into participants, on a daily, weekly and even monthly basis, thus facilitating recipient sensemaking processes to achieve an alignment of interpretation in their own realities (showing signs of macro-deinstitutionalisation), or more so ‘lateral’ interpretations of program reality for collective action. These stabilising normative practices in maintaining institutional program relations aligned with the temporary uniqueness of the organisational change is related by Participant 1-A, a Senior Manager from Infra-GA:

[...] Infra-GB and Infra-GA worked really well and from program delivery point of view we utilised their services, we were having monthly meetings with them … but be that as it may there needed to be regular reporting frameworks, regular activity, regular targets, regular information flow to ensure that the confidence was maintained (Participant-1A).

Participant-5C, a Senior Program Manager from Infra-GC, also provided some insights into the normative practices of managing project risks that maintained institutional program relations:

We had risk registers meeting every week. We would come around and share the issues and risk and learn from each other and the team was working out very well. So, I would listen to Participant-11C, from Infra-GC, for example, he has got the issue with the principle and other guys would learn issue about the [school] problem that I'm having with the external cladding and so we were constantly learning from each other (Participant-5C).

Thus, the alignment of institutional program relations were maintained and reproduced through stabilising influences of embedded routines, repetitive practices and action-meaning cycles of sensemaking i.e., shared frameworks of information flow and knowledge diffusion. Although these are powerful mechanisms that ‘glue’ institutional program relations i.e., lateral processes of communication (informal verbal exchanges) that infuse temporary ‘action teams,’ especially in a context of rapid temporary organising, one impetus of such influences is someone with the ability to make fast and painful decisions. This is related by Participant-2C, a Senior Manager from Infra-GC:
We used to have a weekly meeting with Infra-PA, they had a program manager. We would have a monthly meeting with Infra-PA and the project managers. But I know Infra-PA were having more regular meetings outside of that with the project managers. In-house, we would have a monthly steering committee meeting with Participant-9C, and a few other people would sit in... [like the] ...state service co-ordinator... Anyway, there were lots of discussions but sometimes on the ground I was vested with a lot of authority, so I would make decisions about things. Sometimes that would be, ‘You need to do this. I am going to take that project off you and give it to that person.’ That really got a few people steamed. There were contractual issues there, but for me it was just taking noise out of the system. But, yeah, there was a formal governance, but there was a lot of informal governance going on as well (Participant-2C).

These theoretical constructs in conjunction with the data suggests that maintaining institutional program relations aligned with the temporary uniqueness of the organisational change had a significant (as with the creating institutional project relations construct) normative and cognitive deficit: insufficient change in the temporary uniqueness of their normative associations and hybrid project networks. Effort was more focused on adherence to hierarchical and formal rule systems (written and spoken): traditional instrumental technocratic processes and isomorphic pressures associated with their ‘permanent’ structures, rather than on the reproduction of norms and beliefs in maintaining institutional program relations aligned with the temporary uniqueness of the organisational change. Such systems are coercive and tended to significantly constrain the relational actor space (inter)actions to achieve a sense of collective institutional leadership towards a high performing temporary ‘action team.’ Here organisational and agency actors tend to focus more on adhering to rule systems (formal verbal communications), rather than enacting institutional norms needed to align with the temporary uniqueness of the organisational change, which enables a complex system to influence and shape organisational behaviour (i.e., enabling system of influence) towards achieving the program strategies and benefits.

Disrupting Institutional Project Relations. Although creating and maintaining institutional project relations aligned at the front-end with the temporary uniqueness of the organisational change initiative is essential to achieve a relatively stable state of (inter)actions, organisational and agency actors also need to be aware of project relations being disrupted by individual or collective actors. This form of disruption, which is also seen as sensebreaking i.e. reconsideration of senses, questioning underlying assumptions, and re-examining the course of action (Maitlis and Christianson 2014) in the relational actor space, can either be achieved through legitimate or illegitimate means. Additionally, it is seen as conformity or non-conformity to existing socially constructed systems of rules, norms, values and beliefs (Deephouse and Suchman 2008). Here the focus is on attacking, undermining or challenging the mechanisms that lead members to comply with institutions (Giuliani 2016, Lawrence 2008, Lawrence and Suddaby 2006). This involves mechanisms such as disconnecting sanctions, disassociating moral foundations, questioning or undermining assumptions and beliefs. In essence, it is the ‘destruction or breaking down of meaning’ (Pratt 2000, p.
464). The data shows that these types of disruptions, which were minor throughout the program, were particularly evident when the Commonwealth amended the program guidelines. However, these disruptive changes, although legitimate, reduced certainty and constrained flexibility for the education authorities. For example, difficulties with the Commonwealth program rules arose from measures introduced to ensure progress (i.e., silent on construction commencement, more realistic timeframes to procure work), guidance on the use of allowable funding (i.e., inconsistent funding terms and agreements which required legal advice and subsequent ministerial approval), rules governing project variations (i.e., authorisation process for variations), and changes in payment schedules (i.e., smaller and more regular funding instalments). In addition, the Commonwealth did not consult, nor entered sufficient action-meaning cycles of sensemaking, with the education authorities on some of the amendments – they practically dictated the relational actor space: again reinforcing the collapse in the facilitation of sensemaking aligned with the temporary uniqueness of the organisational change, and the predominance of an instrumental technocratic process to program implementation. This tended to constrain relationships and detract from the emergence of an unique temporary organising institutionalised program reality. Such constraints arose around rules establishing more realistic timeframes was illustrated by Participant-2C:

They were impossible… no, I won’t say impossible, nothing is impossible. Their deadlines were, from my point of view, very aspirational and, given the circumstances we had here in [this state] … and, as it played out, for the rest of the country – it would have been very difficult for us to have met those timelines (Participant-2C).

Participant-1F, a Senior Program Manager from Infra-PB, illustrates when institutions are disrupted based on normative foundations, that is institutional practices:

[…] the senior program manager […] was trying to co-ordinate, she was trying to co-ordinate the Infra-PA groups, and with [the other manager’s] groups, and then we brought them all in under my group, briefly as their own teams … we moved out of that internal structure and had our own world, we reported directly to Participant-2C … (Participant-1F).

Here traditional institutional program management practices or logics were legitimately disrupted and aligned with the temporary uniqueness of the organisational change i.e., a high performing temporary ‘action team,’ which introduced more streamlined practices with the aim to achieve the program strategies and benefits. Although this tended to undermine existing beliefs or institutional logics, it actually facilitated new ways of (inter)acting which was unopposed, and actually favoured, by existing actors. Such a process can be seen as a licence to critique where an ‘empty space’ is explored via dissensus for creative solutions (Christensen et al. 2015). Participants also expressed this to be non-compliance (or non-conformity) with existing rule systems for program implementation. Such a process underpins the essence of ‘breaking down meaning’ i.e., questioning current institutional logics, and then realigning institutional logics (new course
y, Participant-2C instigated and led change with the enactment of a ‘fresh’ cycle of sensemaking (or otherwise sensebreaking) i.e., less about directing and controlling and more about facilitating recipient sensemaking processes (informal communication) to achieve an alignment of interpretation towards an unique temporary organising institutionalised project reality. The participant was a ‘statesman,’ truly transforming the relational actor space towards an aligned, or ‘managed,’ taken-for-granted institutionalised program reality. Although legitimately disrupting institutional project relations through sensebreaking was considered the ‘norm,’ especially for such a large and complex program, which tended to favour the program environment as an enabling influence, program relations were also illegitimately disrupted. This was destructive and significantly constraining on the formation of an unique temporary organising institutionalised program reality. This is seen as the emergence of program anomie, the Machiavellianism, in the relational actor space. For example, the program’s implementation was fiercely debated in state and federal elections during program delivery, organisational and political actors were ‘breaking down’ the program for political means, and eventually, the program’s normative institutional framework was severely disrupted with a change in leadership and government. Actors adopted dissociative narratives and techniques to disrupt institutional practices. This is related by Participant-1C:

… [the state’s] change in government in 2010 when we were still at the very height of delivering the BER we had an incoming coalition government that were very critical of the BER program in its entirety, not just the way it was delivered but the fact that it should never have occurred in the first place. So there was probably not a strong political interest in seeing it through to be a success; they really were just trying to
minimise the fallout rather than actually make it a success. So that presented particular challenges where
the opposition which became the government had been highly critical of both the BER program and the
way it was delivered in opposition and they continued that rhetoric when they became government which
made it very hard for the [education authority] to actually win the credibility back from communities and
schools when they had their own government criticising the program. Many of the individual projects
from the program got affected by local politics (Participant-1C).

Another example of illegitimate program disruption, and Machiavellianism, is illustrated by Participant-
11C, a Project Manager from Infra-GC:

[…] But if a school principal said, you know, ‘We're not getting what we want, the school community
with all the money that you're providing which is a one in a life time sort of injection, we're not getting
what we want.’ Then you get a lot of feedback through the ministerial members who would be saying,
you know, ‘We've given you $3 million what are we getting for it? Are we getting value for money? Why
can't they get what they want,’ […] the local members … interfered so much that … there’s a level of
frustration that the interference isn’t warranted, it’s effectively chewing up time, distorting the outcome
and just annoying (Participant-11C).

A substantive insight taken from the data on disrupting institutional program relations aligned with the
temporary uniqueness of the organisational change concerns the influence of institutional pressures on
different agency actors. Such institutional pressures can be characterised as the institutionalisation of self-
interest in the guise of utilitarianism (Johnson and Duberley 2011), or ‘totalising’ the relational actor space
that hold some actors ‘captive’ to relentless coercive, normative and cognitive pressures for conformity
(Lawrence and Suddaby 2006). The data shows that this was associated with political elites who operated
with heightened awareness of, or politically ‘militarised,’ their social environment to undermine or redefine
program rules or logics to reconstitute actors or reconfigure institutional logics or the relational actor space:
pursuing a divergent program identity and reality. These actors had a sophisticated understanding of the
normative boundaries of the program and meanings of institutions including political, and mobilised the
necessary powers to shape the relational actor space to achieve their desired ends with a sense of immunity.
This type of institutional work can also be seen as ‘boundary work,’ or politicisation, relocation and
institutionalisation of boundaries (Lamont and Molnar 2002). Here organisational and agency actors
disrupted institutional program relations that were aligned with the temporary uniqueness of the
organisational change through manipulating social and symbolic boundaries, which is a powerful medium
through which people acquire status and monopolise resources (Lamont and Molnar 2002). As according
to Machiavelli: ‘War is just to whom it is necessary’ (Benner 2009, p. 147, quoting Machiavelli). The war,
in this case the program, was seen as unjust to those actors who opposed its necessity, which motivated
them to take action. Such disruption to the relational actor space tends to be seen with large-scale changes,
such as revolutionary change, war and imminent economic failure (Lawrence and Suddaby 2006), and
dynamically fragmented systems (i.e., loosely coupled inter-organisational networks) where actors pursue different interests (Sydow 2006). Following on from the construct or mechanism of collective institutional leadership, and contextually intertwined, is informal and formal mechanisms of institutional project work, which influences and shapes relational actor space (inter)actions to achieve an unique temporary organising institionalised program reality.

Mechanisms of Institutional Project Work

The data revealed that front-end institutional project work (sensemaking) is influenced by four distinct, but intertwined, mechanisms: (a) distant associational institutionalisation, (b) situated associational institutionalisation, (c) distant instrumental institutionalisation, and (d) situated instrumental institutionalisation. Although distinct and despite their one-dimensional sense of influence, in reality they are cross-cutting in nature and continuously shaping relational actor space (inter)actions and hybrid project networks in achieving program strategies and benefits. With these influential mechanisms, distant means that power is exercised at a distance i.e., far spatial reach, and situated means that power is exercised in the present i.e., face-to-face communication and interaction. Additionally, the major differentiating factor is the quality of communication. Acting at a distance is less tangible than face-to-face interactions which involve body language and gestural symbols (Allen 2003). In these constructs power is also exercised by different means: associational and instrumental. With associational as a medium, power is seen as ‘power-to’ or integrative action, which acts like a collective medium i.e., exercised with others, whereas instrumental power as a medium, is seen as ‘power-over’ or dominative action, which acts like an authoritative medium i.e., exercised over others (Allen 2003). The relational characteristics and outcomes of these influential mechanisms are highlighted in figure 6-10. These influential mechanisms in the relational actor space will be now explained in further detail under the constructs of informal and formal mechanisms of institutional project work.

Informal Mechanisms of Institutional Project Work. The literature on informal or normative governance mechanisms tends to focus on the institutionalisation of normative i.e., values, norms, morals and even cultural mechanisms to develop a collective consciousness (Bijlsma-Frankema and Woolthuis 2005, Edelenbos and Eshuis 2009, Eisenhardt 1985, Surel 2000). These normative mechanisms are able to influence organisational relations – for the better or worse (Delmas and Toffel 2004, Dyer and Singh 1998) in rationalising decisions on the implementation of mega infrastructure program of projects. Although the literature discusses the importance of normative governance mechanisms, including the theory on trust and control (Bachmann 2001, Das and Bing-Sheng 1998, Das and Teng 2001, Edelenbos and Eshuis 2009, Luhmann 1979, Puranam and Vanneste 2009, Sundaramurthy and Lewis 2003) in strengthening organisational and agency relations, it is particularly distant on the literature of power and its influence on
Figure 6-10: Mechanisms of Institutional Project Work. Figure partially adapted from Allen (2003).

governing relations in rationalising decisions for project policy implementation. This study begins to address this gap in the literature.
What emerged from the data was a pattern of informal power relations and its influence on co-ordinating the expectations and (inter)actions between organisational actors in rationalising decisions for the implementation of mega infrastructure program of projects. This led me to induct the constructs of situated associational institutionalisation and situated instrumental institutionalisation. I define these constructs as shaping relational actor space (inter)actions based on social power, trust and risk relations. These are now discussed in more detail. Although in a formal sense informal power-over, or situated instrumental institutionalisation, is conceived as a vertical relationship which tends to produce negative results (see Gohler 2009), more precisely, it is about identifying the medium i.e., people, political, cultural, informational, knowledge and norms, through which power is exercised and diffused, which gives it effectiveness as an influential factor in rationalising decisions to achieve project policy strategies and benefits. This is illustrated by Participant-1F from Infra-PB, who was a Senior Program Manager:

[…] so in terms of us managing […] we needed to be clear on what the rules of engagement were, so there was a framework that we had to work to and we needed to be clear on what that meant and how we would engage you know, day to day in terms of management […] that allowed us to communicate with the stakeholders as to what … [and]… how they could then engage with it. So if their engagement was through us, we needed to be clear on what we did and we could inform them what we did or what we needed to do and so if they had […] if they wanted to influence the outcomes or make change or drive change, we could clearly communicate with them the best way to do it. Sometimes it was directed through us, sometimes our advice would be another avenue. ‘We’re happy to support you but under the rules of engagement we can’t, and if you need to go and have a conversation with someone else from a different aspect, usually political, then we would understand when it comes back to us, we would understand where it’s coming from (Participant-1F).

This influential factor is further related by Participant-1A, a Senior Manager from Infra-GA:

The structures and the hierarchy from a vertical level can cause major grief in projects like this and a lot of it just boils down to simple confidence from the minister down in terms of delivering a project, and you don’t want to go through enormous layers of bureaucracy to be able to get a decision made (Participant-1A).

What the emerging pattern in the data shows is that even though the participants did not exercise, nor in some cases even were delegated with, formal power to make decisions, they could influence the relational actor space based on situated instrumental institutionalisation. Thus, achieving a sense of a collective identity or an temporary organising institutionalised program reality. This was exercised and diffused through people and other normative mechanisms such as culture, trust, information and knowledge. Although seen as asymmetrical, power in this sense was practically symmetrical, embedded within social
relations, which enabled the emergence of collective action in rationalising decisions to achieve the project policy strategies and benefits. This now brings us to the next construct of informal power-to, or situated associational institutionalisation, in rationalising decisions.

The data also revealed that situated associational institutionalisation was a significant influential mechanism through which power was exercised and diffused in rationalising program decisions. This is related by Participant-1B, a Senior Project Manager, from Infra-GB:

We did a procurement and implementation plan, which was signed off. So, after that really the only bind was when there was an issue on site, you know, school was upset at what they were getting or progress or whatever and that didn't happen very often either, that they decided to escalate the issue up through government or through MPs, but we had very few of those. And again, that was because we had information sessions for schools, we got all the principals coming to a session across their area and they could bring along a member of their school council. So, again it was that early communication consultation explaining the framework I think went along way to helping get a relatively smooth delivery of the program (Participant-1B).

This is further related by Participant-4C, a Senior Project Manager, from Infra-GC:

[…] it wasn't exactly like a war but there was a job to be done and everybody knew it had to be done and I think there was a lot of cooperation at a horizontal level right through. I don't think there was any power playing. […] there was this learning experience that everyone was participating in and there was good fundamental knowledge and good thinking around. There was a lot of sharing […] of knowledge and opinions. […] it was really informal (Participant-4C).

Although politics, or political power, could have significantly constrained the relational actor space in rationalising decisions i.e., escalating issues with the education authorities, ministers or a member of parliament, which is seen as the bureaucratisation of relations (Gohler 2009), such hierarchical and bureaucratic decision-making was relatively tamed due to the allocation of informational resources that made program relations more integrative, effective and collective. This enabled the emergence of a collective program identity i.e., strong identification in the relational actor space and a strong esprit de corps of a temporary ‘action team.’ Actors were able to see and make program decisions through the one lens – a collective means to an end – which besides developing a high level of stakeholder trust in governing relations (Dietz et al. 2010), which is a ‘lubricant’ to high performing temporary ‘action teams’ (Wildman et al. 2012), were also able to show commitment (Mintzberg and Westley 2010) to program policy strategies and benefits.
Although situated associational and instrumental institutionalisations are essential to governing the relational actor space, the data also shows that it is highly dependent on informal trust and risk relations between organisational and agency actors. For example, if an organisational actor trusts another actor i.e., a strong sense of empathy, integrity and identification in the relational actor space, it enables the emergence of an unique temporary organising institutionalised program reality, which significantly decreases relational risks and increases program performance. This tends to be due to the fact that as experience grows between actors in a relationship, communication patterns will develop i.e., high relational cues, and norms will emerge and embed over time thus reflecting the level of trust and performance of a relationship (Dowell et al. 2015), which is a typical representation of a high performing temporary ‘action team’ (McKinney et al. 2005). What this suggests is that the way actors see informal trust and risk relations, especially in the early phase of a relationship, is not only imperative in creating and maintaining positive relationship outcomes, but a powerful influential factor in the means-end relationship in rationalising decisions. This is particularly related by Participant-1B:

[…] we were able to work with Infra-GA because of our, I guess years of experience in delivering their projects. We're able to very quickly provide some very sound information on the buildings that had worked well. […] So, it was very much a governance structure by trust […] I think probably the main reason for its success was the fact that the two departments worked together as one unit of work (Participant-1B).

However, such positive relations were not always created nor maintained in the program, which is related by Participant-7C, a Senior Project Manager from Infra-GC:

The culture of it there is no trust, because everybody doesn't want to take the chance if something goes wrong. […] it's become such a thing within the culture that everyone is so busy watching their back and their position that it's created inefficiencies of great scale (Participant-7C). This was similarly related by Participant-4C: I think then down to an [executive level] who was highly pragmatic and engaged in program delivery but then supported by two at the time [senior managers]; one who had a leadership role […] and operational responsibility. I think tactical level and a small power and political level, that mix never quite worked, there was never a level of trust and transparency within the organisation for it to be a well-run program (Participant-4C).

A substantive insight taken from the data shows that horizontally, or laterally, intertwined decision-making had a significant positive effect on the level of trust and risks in governing program relations. Here actors tended to rely on the past actions in program relations, maturity of individual program actors and the fast pace of implementation which effected relationship performance: signifying a truly formed high performing temporary ‘action team’ (Hollenbeck et al. 2012, Jacobsson and Hällgren 2016, Katzenbach and Smith 1994). Integrity trust i.e., norms, values and morals was the main enabling factor that strengthened the
relational actor space in rationalising program decisions. This also tends to be seen in rich cultures with a deep net of interactions (Langley et al. 1995). This was particularly evident at the front-end phase of the program. However, when decision behaviour is vertically intertwined, it is an impetus for politics (Eisenhardt and Lii 1988, Pfeffer 1992b), which the data reveals, had a negative effect on program performance relations and in rationalising program policy decisions. Here the positive relational characteristics of situated associational and instrumental institutionalisation were practically non-existent i.e., high relational trust and identification in the relational actor space. Actually, the negative characteristics of the mechanisms i.e., lack of trust and weak identification, appeared to be concealed and surfaced in the latter phases of program relations. This absence of commitment to strengthening relations significantly constrained and corroded relational actor space (inter)actions, representing relational spaces as ‘cold,’ and led to ‘boundary work’ or disrupting institutional program relations aligned with the temporary uniqueness of the organisational change through acts of manipulation and deception: a significant deficit in actioning the uniqueness of temporary organising i.e., towards a high performing temporary ‘action team,’ or action-based entrepreneurialism. Without such a ‘powerful’ relational actor space, ‘the necessary confidence in a partner to meet obligations would not be met, ensuring the relationship does not continue’ (Dowell et al. 2015, p. 126). With such low-quality connection between actors, there is death in every interaction (Dutton and Heaphy 2003).

**Formal Mechanisms of Institutional Project Work.** The literature on formal or regulative governance mechanisms tends to focus on organisations as a mechanical, long-driven and engineered system of interactions (Baligh 2006, Lorange 1998). As with informal mechanisms of institutional project work, these formal mechanisms influence and reflect organisational and agency relations – its identity for the better or worse (Ashkanasy et al. 2014, Pratt and Rafaeli 2001) in rationalising decisions on the implementation of mega infrastructure program of projects. Although the literature discusses the importance of regulative governance mechanisms in strengthening organisational relations (Bijlsma-Frankema and Woolthuis 2005, Edelenbos and Eshuis 2009, 2012, Inkpen and Currall 2004, Klijn et al. 2008, Klijn and Snellen 2009, Teisman et al. 2009b, Vlaar et al. 2006, Woolthuis et al. 2005) it is particularly distant, as with the previous construct, on the literature of power and its influence on governing relations in rationalising decisions for project policy implementation. This study begins to address this gap in the literature.

Similar patterns emerged from the data as with informal power relations with the difference being in the spatial nature of power. Here power is exercised at a distance and less tangible. This led me to induct the constructs of distant associational institutionalisation and distant instrumental institutionalisation. I define these constructs as shaping relational actor space (inter)actions based on prescribed power, trust and risk relations. These are now discussed in more detail.
The data shows that distant instrumental institutionalisation was particularly evident during the front-end and execution phases of program implementation. The Commonwealth used contracts, program guidelines and administrative decisions to govern the relational actor space with the education authorities in the execution phase, but with minimal facilitation of sensemaking aligned with the temporary uniqueness of the organisational change at the front-end phase of the program. Additionally, education authorities used standard industry contracts to establish rules for projects with contractors. Such formal mechanisms of institutional work serve a number of principal functions in a partnership. This includes binding parties to carry out actions, specifying rules, providing evidence of the nature of the agreement and its enforcement (Blomqvist et al. 2005), and the facilitation of sensemaking in organisational relationships (Vlaar et al. 2006). The data also shows that these formal arrangements were the dominate and least abstract mechanisms governing program-based relations, particularly during program execution. Thus, signalling a relatively weak temporary organising institutional environment. It was seen as the ‘third’ actor, an authoritative and hierarchical actor, acting as a communicative and governance (i.e., transmission of information for sensemaking and sensegiving) tool amongst and between actors. Such formal mechanisms are seen as transactional contracts, an illusion or misrepresentation of organisational reality (Wierdsma 2004), which tend to focus more on outputs or outcomes (Das and Teng 2001) and little on ‘personal’ activities or relational contracting (Camen et al. 2011) to form strong relational or social bonds. Where such bonding is an absolute necessity for the temporary uniqueness of the organisational change i.e., high performing temporary ‘action team.’ Additionally, these mechanisms signal and communicate hierarchical or ‘top-down’ relationships (Pratt and Rafaeli 2001), and predominately incorporate structural bonding to reduce uncertainties in relationship outcomes (Camen et al. 2011, Gounaris 2005). Such formal mechanisms of institutional work also tend to threaten the well-being and stabilisation of relationships, as organisational actors do not strive to equalise the distribution of power in relations (Ling et al. 2014), which tends to deplete social bonding as an important trait in fostering trust in partner relationships (Gounaris 2005). Such governance mechanisms, are also a basis for partner asymmetries, opportunistic behaviour, and Machiavellianism (Heath 2009).

In an effort to drive the rapid delivery of the program, the Commonwealth assumed a greater authority than was envisaged under the national partnership agreement i.e., taking an authoritative stance on program relations. This is illustrated by Participant-1C:

The [education authority] made a number of decisions to ensure that we could meet the Commonwealth’s requirements which were primarily about expenditure and shortness of time. There were decisions made around much less consultation, so communities were not engaged, they were basically told: ‘You’ve got this amount of money, this will get you this project we’re putting in this spot and you don’t need to worry about the budget and the engagement, we’ll just take care of that for you. […] a lot of communities didn't feel a great sense of ownership of what they were getting and felt it was imposed on them meant that no
matter how good a design or how timely or how well the budget was managed, they were never going to feel a sense of connection to what was delivered. So I think the fact that the organisation made a conscious decision not to consult, and that was done for a legitimate reason around time limit. I think it actually cost more time in the end through wrangling with local governments, communities and local members and the Commonwealth throughout all the iterations [...] than if the consultation had just been done right the first time (Participant-1C).

This resulted in rapid tensions between the Commonwealth and the education authorities i.e., disidentification in the relational actor space. Participants also expressed that the program was delivered on a more traditional or relationship model i.e., the ‘permanent’ structures of the hybrid project networks, rather than on a partnership or relationship model as envisaged in the national partnership agreement i.e., temporary alliance. This resulted in weak social bonds and increased transaction costs, which is a sign of relatively weak institutional logics in partnership arrangements (Adobor 2011). Additionally, the Commonwealth adopted structural bonding i.e., financial sanctions to closely monitor the relational behaviour of the education authorities. Such mechanisms foreshadow the emergence of a collective identity or institutionalised reality through interactions (Ashforth et al. 2011) which affects rationalising decisions.

What the emerging pattern in the data shows is that distant instrumental institutionalisation significantly influenced the relational actor space in rationalising decisions. It tended to constrain the emergence of strong relationships and a collective identity to achieve an unique temporary organising institutionalised program reality. Such emergence of strong relations is an impetus for making rational decisions, especially at the front-end phase of program implementation.

The data also revealed that distant associational institutionalisation significantly influenced institutional project work. With the program, the Commonwealth and the education authorities delegated organisational actors with certain responsibilities in delivering the program. Such arrangements, that is delegating some decision-making authority to inter- and intra-governmental agents is beneficial to the principal as he or she is bound rationally and unable to engage in all activities or tasks in a timely and effective way (Barney and Hesterly 2006). Additionally, this facilitates an enabling program environment, for example, empowering actors to make faster decisions, more social interactions, sensemaking and sensegiving, information flows and knowledge diffusion, which enables the emergence of a collective program identity. However, such a formal governance mechanism adopted for the program does also have a number of problems, which can and tends to constrain the emergence of an unique temporary organising institutionalised program reality. This centres around the notion of behavioural rationality with policy implementation processes, in particular, information asymmetries, adverse selection and moral hazard in rationalising decisions (Jones et al. 2006).
The Commonwealth has a well-grounded history with the education authorities in implementing programs aimed at improving school-based infrastructure. This suggests that there is a relatively high level of inter-organisational antecedent trust in relations for program policy implementation. However, the Commonwealth has never implemented such a rapid temporary program with the education authorities, even though there are partner similarities and common understandings (i.e., government agencies, similar portfolios and institutional arrangements). This is related, once again, by the Prime Minister: ‘…we were in uncharted, unprecedented times … It won’t be just business as usual for our bureaucracies’ (Rudd 2009). Subsequently, the Commonwealth did not know a priori the exact qualifications or competencies of the education authorities to deliver such a fast pace program. Being in such a position, agents may exaggerate their ability to attain contracts (Jones et al. 2006).

The data shows that such adverse selection was present in the program. The national partnership agreement set out arrangements, agreed by governments, including project implementation plans submitted by the education authorities outlining their rapid delivery approaches. Although the education authorities provided, to a limited extent, explicit strategies used to fast track processes, they also provided little assurance on their competencies to deliver such a rapid program – as aforementioned, adopting predominately a ‘business as usual’ approach i.e., instrumental technocratic processes. This tends to be seen in highly institutionalised organisational routines or logics (i.e., government agencies), that is, regularly and habitually performed programs of action (Mollering 2006, Nooteboom 2007). In other words the Commonwealth was unknowingly in a ‘competency trap’ (see Patzelt and Shepherd 2008), persisting with partnerships in an underperforming program. Being in such a position (i.e., Commonwealth’s reputation or identity on the line), may motive managers to lower performance aspirations and persist with a partnership despite underperformance (Patzelt and Shepherd 2008). The data shows that such a situation transpired in the program.

The Commonwealth lowered the program performance aspirations, changed unachievable project milestones and increased funding resources, and persisted with the ‘business as usual’ partnership approach with the education authorities in an underperforming program. The sunk and reputational costs for terminating the program would have been too great for the Commonwealth, thus it continued with the underperforming program. Secondly, the Commonwealth lacked the necessary resources and ability to constantly monitor the education authorities. This shows an absence of competence-based trust and complexity in integrity-based trust (Connelly et al. 2015) with the education authorities to fulfil their agreement obligations. To resolve such problems including continuing with the underperforming program, the Commonwealth developed a monitoring and performance information plan, or more accurately labelled as a monitoring regime, to assess the extent to which the program was implemented successfully, met its identified priorities and effectively achieved its strategies and benefits. Although it tends to be seen in a
negative light, such program formalisation does have an advantage, being in that is facilitates sensemaking among participants in inter-organisational relationships (Vlaar et al. 2006). However, an absolute impetus here is that organisational actors make sense of equivocal inputs and enact this sense back into their world to make it more orderly (Vlaar et al. 2006, Weick et al. 2005). But the data shows that such sensemaking for program ‘orderliness’ to transcend into an unique temporary organising institutionalised program reality was farfetched, practically non-existent, and significantly plagued with Machiavellianism and tribalism. This includes data integrity issues and an absence of reliable program performance information to make rational decisions i.e., program outcomes of economic stimulus and job creation in local communities, and modern teaching and learning environments for school and community use. Sensemaking continually dominated the intrasubjective or individual cognitions about identity (‘Commonwealth implementing the program’) with minimal transcendence to the intersubjective or shared cognitions (‘governments implementing the program’) and into the temporary uniqueness of an institutionalised program reality (‘the stimulus program’). There was minimal discourse reciprocity within the discursive resources adopted for the program (i.e., program information flow and knowledge diffusion) between the actors, or the ‘relational actor space for enabling action’ orientated towards program strategies and benefits, to achieve a collective identity or an unique temporary organising institutionalised program reality. As Mckinney et al. (2005, p. 216) state that ‘to successfully accomplish an interaction, the sender must correctly signal and the respondent much appropriately reciprocate.’ There was a lot of action, but minimal interaction in the relational actor space.

The decision to focus predominately on competence-based trust and authoritative control (i.e., output, outcome and behavioural) with the education authorities, ‘forced’ the Commonwealth to persist with an underperforming program. The Commonwealth was in a highly intractable position: continue with the underperforming program and believe that ‘favourable’ adjustments will be made in the future to achieve the desired program strategies and benefits; or terminate the program and ‘absorb’ sunk and reputational costs. However, this would also require decision consensus with the education authorities and COAG – a highly unlikely scenario especially considering the overriding strategic objective of the program was to stimulate the Australian economy. Thus, the Commonwealth decided with the former, continue with the underperforming program. In addition, the implementation of such a monitoring regime increased program transaction costs (i.e., costs in monitoring) and timeframes (i.e., time spent drafting and renegotiating commitments, and resolving conflicts), and thus negatively impacted program performance. For example, the monitoring regime showed inconsistencies or misrepresentations with the national partnership agreement, conflicts with interpretation, and minimal consultation with key program stakeholders including the education authorities on the implementation of the plan, particularly at the front-end. Such arrangements tend to diminish the benefits of ‘noncalculative’ trust, that is the values and norms in a relationship (Nooteboom 2002), including knowledge sharing and learning outcomes (Fulmer and Gelfand 2012) that
are essential to achieve an unique temporary organising institutionalised program reality and make rational program decisions. This could be seen as the ‘achilles heel’ in the program, a disjointed means to achieve the desired end, and being in such a non-transcending state is practically impossible to conceive a strong collective identity (Ashforth et al. 2011), which was required for the temporary uniqueness of the program. This is where most of the action and enabling action was orientated towards – the survival of the Commonwealth as an entity. This phenomenon can be seen as ‘structural program manipulation’ within a dysfunctional persisting program.

However, such agency problems were not so prevalent with the education authorities. For example, Infra-GA and Infra-GB (both state government agencies) have a well-grounded history on infrastructure program delivery, or hybrid project networks, thus demonstrating relatively high individual, team and organisational institutional-based trust antecedents and identity i.e., high level of institutionalisation for the delivery of school-based infrastructure. In addition, their program tasks are reciprocally interdependent, which enables the generation of constructive or enabling feedback loops (i.e., sensemaking and sensegiving), learning and knowledge diffusion, and the increased need for relational coordination in rationalising decisions to achieve program strategies and benefits. This is illustrated by Participant-1B:

‘…we were able to work with Infra-GA because of our … years of experience in delivering their projects. We're able to very quickly provide some very sound information…’. And reciprocated by Participant-1A: ‘…Infra-GB and Infra-GA worked really well and from program delivery point of view we utilised their services…’.

Being embedded in such strong partner relations each partner ‘begins to use the mind of the other as it were an extension of his own’ (Patzelt and Shepherd 2008, p. 1221). These cross-level or institutional ripple effects were also experienced with some schools. However, such cross-level institutionalisation ripple effects were distant with Infra-GA and its program manager and other project management firms. It had similar contagion effects i.e., authoritative decision-making, minimal facilitation of sensemaking and sensegiving in the relational actor space, as the Commonwealth had with the education authorities. In addition, such institutionalisational effects cascaded from Infra-GA to the program manager and to project management firms. The more the micro-institutional effects cascaded the more the program become weaker and volatile to disruptions. It entered a state of perpetual deinstitutionalisation.

Such enabling relational co-ordination is imperative in fast paced environments (Gittell 2012). For example, the rapid implementation of the program, where organisational actors needed to make decisions ‘on the fly’ and ‘adjust their actions rapidly in response to each other and newly emergent information, without wasting additional time referring problems upward for resolution’ (Gittell 2012, p. 402). Such relations were highly beneficial for achieving program performance outcomes. Additionally, organisational, or program-based,
actors operating under such strong institutional environments tend to choose trust and other normative traits as the dominate governance mechanism for co-ordinating expectations and (inter)actions between individuals and organisations. Thus it can be argued that the organisational environment of some state government agencies created a credible program identity i.e., became institutionalised, self-referential for and aligned with the collective (see Ashforth et al. 2011) to achieve the program strategies and benefits, and validating its existence as an entity.

However, such a micro-institutional program identity, or the intersubjective identity within a state, had minimal affect in influencing the actual program (macro-institutional program identity). The data shows that this is due to the absence of social interaction for sensemaking, sensegiving, knowledge diffusion, a constraining policy environment, bureaucratic and weakness in temporary organising the uniqueness of the program including the construction of other state collectives of the program. It was in a continuous state of dysfunctional temporary organising institutional program reality. The necessary level, and the fundamental traits, of the temporary uniqueness of the organisational change was never achieved. This can also be seen as ‘identity foil’ (Ashforth et al. 2011), where the Commonwealth partly disidentified itself from the states. Under the national partnership agreement, the states were ultimately responsible and accountable for the way they delivered the program. However, each state’s program delivery decisions were predominately constrained by the Commonwealth, thus causing a level of institutional program dissensus amongst the education authorities. Showing signs of ‘two-faced politics,’ or more accurately structural program manipulation, which is a sign of Machiavellianism i.e., the lion and the fox (Benner 2009). Here the education authorities found it challenging to form an allegiance, or a temporary alliance with the Commonwealth. They also believed that the Commonwealth boundaries were rather impermeable and insecure, and thus began to identify and build a consensus with fellow state government program actors i.e., forming an allegiance to and embedding an unique temporary organising micro-institutionalised program reality. Such allegiance identification also transcended, or rippled, across to other state education authorities, as related by Participant-1A:

The Commonwealth government has always been an issue in terms of what they want and they would say that it's prescribed. But then states have a way of manipulating the prescription and then states ...[are]... talking to one another to find out how the other states are going to deliver in case someone else has got a better idea. So there is collaboration going on at a national level and sometimes depending on what's happening with the Commonwealth the states may meet outside of that Commonwealth meeting just to hear what's going on as well. Or the states will individually ring up one another, ...[so]... there's behind the scenes stuff going on (Participant-1A).

This need for collective action and transcendence of allegiance to other state government authorities enabled the emergence of a stronger temporary organising micro-institutionalised program reality,
increasing program performance and their collective power as an unique temporary organising micro-institutionalised program. Such micro-institutional forces were felt by the Commonwealth. This also gave the education authorities a stronger sense of agency and program control, but such ‘dynamics’ also threatened the integrity of the program and the Commonwealth as a legitimate actor. Participants saw that the centralisation and bureaucracy of decision-making was hindering program performance – its integrity and viability – and decision-making decentralisation emerged amongst the education authorities. In the process the education authorities were also validating and maintaining their existence as a legitimate entity. Such a phenomenon can be seen as cognitive-behavioural restructuring, where ‘mutual social influence and the achievement of normative consensus are grounded in shared social identity’ (Haslam and Reicher 2007, p. 145) to form a collective identity. However, in order to reassure program integrity and alliance to program strategies i.e., deliver projects to stimulate the Australian economy, the Commonwealth implemented a monitoring regime, which was seen as ever-more onerous on the education authorities, and as a consequence, began to create deinstitutionalisation and insurmountable problems for the Commonwealth and its monitoring regime. The Commonwealth utopian for program policy implementation was turning into a dystopian nightmare.

From a rather inflated realist perspective, if the Commonwealth and the education authorities focused more on trust based relations (i.e., integrity-based trust and competence-based trust) to achieve an unique temporary organising institutionalised program reality, then the Commonwealth could have potentially saved Australian taxpayers AUD $4.6 million in program management fees for *ex post* transaction costs per education authority (22 separate education authorities delivered the program, thus a cumulative figure of AUD $101 million), and each education authority could have potentially saved taxpayers AUD $42.9 million (cumulative figure of AUD $943 million) in program management and other embedded services fees. This equals to an approximate potential taxpayer saving of 42 percent on program and project management fees. Overall the potential program savings to taxpayers would have been AUD $1.0 billion or 6 percent of the program cost (based on calculating the actual impact that an increase in trust has on transaction costs as described by Connelly *et al.* 2015). Even though this may seem like a rather arbitrary figure, it does show that trust, or more so distant associational institutionalisation is an essential mechanism for project policy implementation.

What the emerging pattern in the data shows is that distant associational institutionalisation can significantly influence the relational actor space in rationalising decisions. It enables project- and program-based actors to make rapid program decisions through delegation and decentralisation of decision-making authority. This is an impetus for an enabling program environment, including social interaction, sensemaking and sensegiving, information flows and knowledge diffusion to make rational program decisions. This is especially true for innovative project policy solutions, seen as socio-epistemological
technology (Peschl and Fundneider 2014). Here meanings materialise which enables transcending to a collective, and at times innovative, program identity or an unique temporary organising institutionalised program reality. However, such a mechanism does have a dark side, a ‘double-edged sword,’ which can generate undesirable and unanticipated benefits and constrain the emergence of an unique temporary organising institutionalised program reality. A program owner that fails to achieve a ‘balanced’ (i.e., trust and control) environment can enter an intractable and ill-fated position. An allocation of too much power with minimal sense back into a program can lead to an underperforming program and the formation of micro-institutions. Here program actors tend to continue with a dysfunctional program while distancing themselves from the program owner, but not necessarily the program, to survive as an entity.

Although distant associational and instrumental institutionalisations are essential to governing the relational actor space, the data also shows that it is highly dependent on formal trust and risk relations between organisational and agency actors. In implementing the program, the Commonwealth incorporated overly prescriptive outputs, outcomes and behavioural control clauses in the national partnership agreement and program guidelines. Although such prescriptive controlling mechanisms make the outcome of relationships more predictable (Patzelt and Shepherd 2008), and enable the facilitation of sensemaking between organisational actors (Vlaar et al. 2006) to form a collective identity (Ashforth et al. 2011), it can also corrode relationships with its rigidity, loss of flexibility, and diminish trust (Vlaar et al. 2006). The data shows that these traits were evident in the program which significantly constrained the relational actor space to form a collective identity. The national partnership agreement was overly prescriptive and not done in partnership with the education authorities. It used authoritative program rules to influence the delivery activities. Education authorities expressed concern on the level of prescription imposed by the Commonwealth in its management of the program. However, through the devolvement of the program, flexibility was given to the education authorities with a reduction of prescriptive rules, and the ability to determine the most appropriate delivery approaches to achieve strategies and benefits i.e., procurement approach. Such an authoritative and prescriptive approach corroded macro-institutional and strengthened micro-institutional program relations. This is particularly related by Participant-1C:

To really be able to manage a major project you’ve got to understand the relations and manage them carefully and also throw your weight around when you need to, but I think there was a sense from the Commonwealth that they didn't trust us, they didn't trust the information we were giving them and I think that meant that when things got difficult everything was that bit harder because there wasn't the basis of trust (Participant-1C).

The participant saw that the Commonwealth did not trust their ability to deliver the program with the imposition of authoritative control. Such authoritative control is also illustrated by Participant-2C and then similarly afterwards by Participant-1A:
[...] Yeah. Commonwealth putting unreasonable deadlines around things; that's just a fact of life, we have to live with that, but at the same time we don't want to compromise our standards to get what we need (Participant-2C). This was similarly related by Participant-1A: ‘… the Commonwealth government has always been an issue in terms of what they want and they would say that it's prescribed.’

In addition, such authoritative control which significantly constrained the development of relations was related by Participant-9C:

[...] the Commonwealth and State were in opposition; it became a football game [...] there was a lot of political pressure [...] there was ‘one-voice’ [being the Commonwealth]’ (Participant-9C).

What emerged from the data was a pattern of authoritative control and its effect on trust to achieve an unique temporary organising institutionalised program reality. When an organisational actor, such as the Commonwealth, uses highly prescriptive outputs, outcomes and behavioural control clauses it tends to constrain the development of trust and social interactions (or social bonds) needed to achieve an unique temporary organisinginstitutionalised program reality. Such control mechanisms tend to decrease trust i.e., integrity-based trust in partner relations, and impair knowledge sharing and learning outcomes (Fulmer and Gelfand 2012), which is an essential basis for action to form a collective identity (Ashforth et al. 2011). All in all, the Commonwealth saw the relational risk too high (i.e., uncertainty in partner’s willingness to co-operate or achieve program strategies and benefits, potential reputational or identity loss etc.) in the partnership, and opted for highly prescriptive control mechanisms thinking that it is an impetus to achieve program strategies and benefits. However, this is far from the ‘truth.’ It was actually an impetus for tribalism and Machiavellianism: organisational actors forming micro-institutions to achieve program strategies and benefits and survive as an entity, while questioning the legitimacy of the Commonwealth as a viable program actor.

Figure 6-11 provides an institutional project governance framework based on the four mechanisms of institutional project work. As shown in the data, the relational actor space between the Commonwealth and state government agencies was associated more with distant-based institutional project governance mechanisms i.e., authoritative decision-making, representations of space as ‘cold,’ asymmetrical and low trusting relations. This leads to constraining influences in the relational actor space with other outcomes such as high transactions costs, low stability, weak identification and sense of morality, disidentification, and exacerbates Machiavellianism. However, the data shows that the relational actor space between state government agencies and their program managers was associated more towards situated-based institutional project governance mechanisms i.e., transverse decision-making, representational spaces as ‘lived,’ symmetrical, and high trusting relations. This leads to enabling influences in the relational actor space with other outcomes such as low transaction costs, high stability, strong identification and sense of morality, and
tames Machiavellianism. The institutional governance framework also shows that to achieve an unique temporary organising institutionalised program reality, the Commonwealth’s institutional program work should have focused more towards situated institutionalisation.

Figure 6-11: Institutional Project Governance Framework

**Rational Agent**

The literature on rationalising decisions tend to focus on decision-making as a process (Langley et al. 1995, Mintzberg and Westley 2010, Parkin 1996), or as strategic and characterised by plurality (Buijs et al. 2009, Jean-Louis et al. 2007, Klijn and Snellen 2009, Kriger and Barnes 1992, Little 2015, Pettigrew 2003). This also includes organisational and political strategic decision-making (Child et al. 2010, Eisenhardt and Iii 1988), strategic decision-making in professional and public organisations (Morris et al. 2010, Rainey et al. 2010), and the importance of quality decision-making in project environments (Cooke-Davies 2009, Miller and Hobbs 2009, Mullay 2015, Parliament of Victoria 2012, Productivity Commission 2014, Victorian
Auditor-General's Office 2012b, Williams et al. 2009). Following the work by Almendares and Landa (2016), Ansar et al. (Forthcoming), Bakker et al. (2016), Burke and Morley (2016), Connelly et al. (2015), Dietrich and List (2013), Fast et al. (2012), Flyvbjerg (2008a, 2009a), Flyvbjerg et al. (2009), Klossek et al. (2015), Patzelt and Shepherd (2008), Weick (2009), Yarritu et al. (2014), I define a rational agent as minimising cognitive biases (i.e., systematic errors) in the decision-making process, aligned at the front-end with the temporary uniqueness of the organisational change initiative, based on strategic equilibrium-based reasoning, including reason-based explanations (motivating) and reason-based justifications (normative). As motivations and justifications structure practical reasoning may change, a critical factor here is the way actors process information (i.e., sensemaking, sensebreaking, sensegiving, information flows, governance mechanisms, knowledge diffusion etc.) towards a joint intention. This is based on strategic equilibrium-based reasoning i.e., in the reasoning of decisions or committing to courses of action. When actors achieve a ‘level of social reality,’ or a sense of jointness (Almendares and Landa 2016), transcendence to an institutionalised reality or collective identity (Ashforth et al. 2011, Weick 1995, Weick et al. 2005) they identify the best courses of action and optimise choices (Landa 2006), thus, achieving a state as a rational agent. Being in such a state, agency actors can successfully achieve program strategies and benefits.

Cognitive biases in rationalising decisions was beleaguered with mal-governance from program initiation, or the front-end of the program. On 5 February 2009, COAG announced the rapid delivery of the program: this commenced a ‘plague’ of Machiavellianism and tribal program behaviours. The Prime Minister, State Premiers and Territory Chief Ministers decided and agreed to implement the national partnership agreement, and rapid arrangements thereof, in a rather authoritative way. Education authorities had 18 months, from date of approval, to design, procure, construct and complete projects. This contrasts with traditional timeframes applied to education authorities’ capital programs, where it can take up to 12 months to execute a construction contract, and an average timeframe between 38 to 45 months to complete projects. No program exemplar exists. Additionally, COAG provided minimal opportunities for the Commonwealth and state government agencies to provide input in drafting the national partnership agreement. Here COAG entered a state known as ‘discursive closure,’ when ‘a particular view of reality is maintained at the expense of equally plausible ones’ (Deetz 1992, p. 188) and precluded a licence to critique which could have ‘stimulated sensitivity, quick adaption, and innovative solutions’ (Christensen et al. 2015, p. 135). This significantly constrained the relational actor space, especially the process of sensemaking, sensebreaking, sensegiving, and knowledge diffusion required to achieve an unique temporary organising institutionalised program reality, and identify the best courses of action in achieving program strategies and benefits. Leaders being in such a powerful and salient structural or relational position tend to pay more attention to positive and rewarding information (for example, with the program, stimulate the economy by supporting employment and growth, and foster a more resilient Australia), rather than the process to make reasoned
decisions, which shape institutions towards an unique temporary organising institutionalised program reality. This leads to an overestimation of one’s accuracy in decision-making (Fast et al. 2012), and ‘blind rule following’ by agency actors (Christensen et al. 2015, Deetz 1992, Landa 2006). What is more, making such essential decisions in the ‘absence of adequate information hinders not only one’s own performance and ability to maintain power, but often hurts stakeholder communities’ (Fast et al. 2012, p. 249). Being in such a position, agency actors fall into a state of ‘irrationality’ (Landa 2006), and being unable to identify the best courses of action and optimise program choices.

Such overconfidence in decision-making with corroding effects was a contagion in the program until its ‘completion.’ For example, the national partnership agreement clearly states that the Commonwealth will develop the program guidelines in consultation with the states. However, such a partnership arrangement i.e., temporary alliance, especially consultation and knowledge diffusion, was practically non-existent. With the program guidelines, the Commonwealth imposed a powerful position, or sense of power, (i.e., greater control over how the program will be delivered) with overly prescriptive rules, or input controls, on the education authorities for governing the delivery of the program. This was not in spirit with previous arrangements nor initiatives. Additionally, the Commonwealth did not consult with other intergovernmental agencies (i.e., finance or treasury) on the content of the program guidelines. The data shows that such a constraining narrative was evident throughout the program. All in all, the education authorities and other intergovernmental agencies i.e., hybrid project network, where given minimal input, such as, sensemaking into the design of the program (i.e., capitalising on existing practices and knowledge), which significantly constrained relations and led to an underperforming program, and a deinstitutionalised temporary organising program reality. The Commonwealth’s rationale for such authoritative decision-making with minimal consultation was the tight program timeframes and diverse stakeholder interests, which precluded the ‘normal’ consultation processes associated with such a large and complex initiative. However, no government agency including the Senate Committee saw this as a reasoned nor rational decision.

Organisational actors in such powerful positions tend to make overconfident or ill-informed decisions, engage in less advice taking, exhibit less willingness to revise their decisions in the direction of an advisor, and have significantly less accurate final judgements than lower power participants (See et al. 2011). Such cognitive bias traits were evident in the case study. This is also applicable to COAG and the decision to implement the program, as people who associate themselves with powerful individuals tend to exacerbate their confidence in decision-making and performance outcomes (Fast et al. 2012, See et al. 2011). Besides overconfidence in decision-making, another cognitive bias that effected program performance was the illusion of control. Such illusory control, or a perceived control over outcomes, tends to be seen in powerful leaders and in environments of power asymmetries (Fast et al. 2009, Vlaar et al. 2006), which, therefore,
significantly effects performances and the formation of an unique temporary organising institutionalised program reality, and thus, the rationalising of decisions. In addition, this tends to be seen in powerful actors who have a personal involvement in obtaining an outcome, and their self-esteem is at risk (Yarritu et al. 2014). The data shows that this was the most dominate cognitive bias in the program, which made it practically impossible to form a collective program identity, and thus, the best courses of action for program implementation. A significant program implementation fallacy. For example, the education authorities submitted implementation plans outlining their rapid delivery approaches. However, the implementation plans provided little assurances on the education authorities competencies to deliver such a temporary rapid program – adopting predominately on a ‘business as usual’ approach or program narrative: an old mind set approach to program delivery. The Commonwealth was under the illusion that the education authorities could competently deliver the rapid program. However, this was far from the truth. Education authorities apparently had the relevant expertise and knowledge to deliver the program, where the Commonwealth rightfully devolved such roles and responsibilities to the states, but it was the process of forming a temporary institutionalised program reality aligned with the rapidity of the program – making reason-based justifications towards joint intentions – that led to the illusion of control, and other cognitive biases in the program.

Being in such a state of illusion, the program experienced delays in meeting construction commencement and completion milestones, including revised milestones, and cost overruns which required the Commonwealth to reallocate funds from other programs. This illusion also led to a phenomenon known as escalation of commitment (Staw 1976). Here the Commonwealth had to decide to either invest more (i.e., 14 percent or $1.7 billion) and continue with the underperforming program, or terminate the program. The Commonwealth was in ‘no-man’s land’ (see Brockner 1992). The Commonwealth decided the latter, as quitting here would have been prohibitively expensive and there would have been formidable political exit barriers (Drummond 2014). Also, the Commonwealth was time constrained to explore other viable investment options, especially considering Australia was about to fall into recession. This is also the most vulnerable time for erroneous project abandonment, and is most likely to be murky, as costs have been incurred, but other benefits are distant (Drummond 2014), and social identities, especially political, are at risk (Dietz-Uhler 1996). In addition, through a constructive dialogue process of sensemaking, sensebreaking and sensegiving with the education authorities, the Commonwealth revised the program guidelines and targets twice within about six months of program commencement: one-sixth of a way into the program. Such a program fallacy could have been prevented if the Commonwealth engaged with the education authorities at the front-end of the program (i.e., facilitation of organisational sensemaking, sensebreaking and sensegiving), prior to public announcement, to identify the best courses of action and optimise choices, and thus, potentially achieving a state as a rational agent. Such a myopic and unscrupulous vision can be traced back to COAG – an unique temporary organising institutionalised program reality.
aligned with the rapidity of the program never came to realisation. Although such program revisions looked extremely favourably on ‘paper,’ it was too little too late. The program ‘plane’ had already taken-off, with landing now being compulsory. At this stage of the program, both the Commonwealth and the education authorities were continuing with a underperforming program, nowhere near the temporary uniqueness i.e., a high performing temporary ‘action team,’ needed to achieve the program strategies and benefits. All parties to the program intentionally continued with the underperforming program. This reinforces the theory that individuals who identify strongly with a group or project (i.e., ‘program binding’) will remain committed to a failing course of action (Dietz-Uhler 1996).

Additionally, the program costs were strategically misrepresented by the Commonwealth from program initiation. The data shows that the original costing of the program, hastily, unilaterally and ‘irrationally’ made within one week, was based on an assumed 90 percent utilisation rate of total potential funding by schools, but the utilisation rate was close to 100 percent, even though a number of agencies raised concerns with the Commonwealth on the viability of such program funding (Australian National Audit Office 2010). Such a situation significantly enhances the escalation of commitment (Drummond 2003). In addition, such illusions, strategic misrepresentations and an absence of constructive consultations i.e., lack of action from a wider, multilateral or non-partisan standpoint, to form an unique temporary organising institutionalised program reality, and thus, reasonings as a rational agent were also felt on the project front-lines. For example, schools were not given the right or appropriate infrastructure, projects continually being descoped, failure to receive value for money, schools dissuaded from having a voice, and even at times, funds being used for corrupt purposes. Such failure to achieve value for money on school based infrastructure was systemic in nature. Giving the appropriate information or learning, individual agents could have made optimal decisions and avoided significant sunk costs (see Navarro 2007). This significantly reinforces the value of achieving a ‘relational actor space for enabling action,’ where actors make sense of situations for the best courses of action orientated towards program strategies and benefits – achieving a state as a rational agent, a rational program agent. Besides being strategically misrepresented – fallen into ‘irrationality’ – and in a state of illusory control, the Commonwealth lowered performance targets and persisted with the partnership based on the belief that with competence and goodwill the ‘partnership’ will ‘ride out’ the current storm. Such a phenomenon can been seen as cognitive dissonance (Patzelt and Shepherd 2008), or even optimism bias (Meyer 2014). Both the Commonwealth and the education authorities were powerful actors leading the program. They were personally involved in obtaining the desired outcomes in their jurisdictions, as opposed to forming an unique temporary organising institutionalised program reality aligned with the organisational change and achieving a state as a rational program agent. If either partner discontinued the program it would have significantly affected their self-esteem, their reputations as a legitimate organisational entity, and the social costs of admitting failure would
have been too high (a phenomenon known as self-presentation theory, see Drummond 2014), which all in all, would have eventually led to their demise.

However, the Commonwealth decided to ‘soldier on,’ strategically avoiding the ‘sunk cost fallacy’ (McAfee et al. 2010, emphasis added), even with an underperforming program, sunk costs and wider economic benefits: a delusional rational agent. In addition, program funding was conditional on the states agreeing to be fully responsible for all ongoing recurrent costs and maintenance of the new and refurbished infrastructure. Therefore, future sunk costs matter on the rationality of the program (see McAfee et al. 2010). For example, program funding was conditional on the education authorities, wherever possible, incorporating sustainable building principles to help reduce environmental impacts. These requirements are important as it minimises energy consumption and reduces ongoing infrastructure maintenance (i.e., electricity and water). However, the Commonwealth exempted projects from adhering to traditionally adopted ‘global area standard’ requirements. Even though states agreed to incorporate sustainable building principles, and the education authorities submitted implementation plans outlining how they would incorporate such principles, it was rarely implemented nor controlled by the Commonwealth – thus reinforcing the illusion of control. Such a limited focus on sustainable building design is going to significantly increase annual operating costs in the millions for the education authorities, not to mention the direct and indirect increase in environmental pollutants. Thus it was rather irrational for the Commonwealth and the education authorities to ignore future sunk costs i.e., long-term management approach in implementing the program (see McAfee et al. 2010). This places another question mark on the program’s value for money outcomes or benefits. However, as Drummond (2014, p. 437) puts it ‘in practice, a project really fails only when people will no longer support it.’ The data shows that the program, always, maintained enough support to be deemed a success, even though there is no evidence that the program strategies and benefits were nor ever will be achieved. Although the program can be deemed a success, the people of Australia were under the illusion that the program was a success, that is, achieving its strategies and benefits: a delusion of program success. Thus, conceptualising another cognitive bias: delusional program success.

A significant insight taken from the data is the absolute necessity to focus predominately on creating a collective identity or a legitimate and an unique temporary organising institutionalised program reality aligned at the front-end with the organisational change initiative based on strategic equilibrium-based reasoning – a rational program agent – prior to the commitment of significant resources or prior to the program plan taking off. Figure 6-12 illustrates the emergence of program (or project) (de)institutionalisation. Had COAG, the Commonwealth and the education authorities achieved a deeper movement from the intrasubjective (‘the Commonwealth implementing the program’) to an intersubjective (‘governments implementing the program’) and then into an unique temporary organising institutionalised
program reality (‘the stimulus program’), especially at the front-end phase, they would have most likely have then made reasoned and more optimal decisions. They would have entered the state as a rational program agent. Decisions would have been made earlier, options explored and justified, especially on the viability of the program to achieve its strategies and benefits. However, another essential point taken here is the need for someone to make fast and painful program decisions. Such decision-making was absent in the program; when it was made, it was highly questionable. In the case of the program, COAG seen as the program initiator or sponsor, should have made an earlier decision to either persist with the program or discontinue with the program: either decision is going to be painful and costly. However, such a program framework (i.e., multiple actors), or overvaluing the existing ‘dysfunctional partnership’ which is rooted in cognitive biases emerging from multiple institutional levels (Klossek et al. 2015), made making rational program decisions practically impossible – a state as a rational program agent – and eventually led to program deinstitutionalisation and failure: major program or megaproject fallacy.

![Emergence of Temporary Program (De)institutionalisation](image-url)

**Figure 6-12: Emergence of Temporary Program (De)institutionalisation.** Figure partially adapted from Lawrence *et al.* (2001).
6.4 Summary

This chapter presented the key findings that emerged from this study. Findings were organised into mechanisms and project action-based activities (or categories and themes) towards conceptual abstraction i.e., conceptual model, which then enabled the generation of new theory i.e., newly generated theoretical constructs, relationships, conceptual framework and proposition. Data from individual interviews, documents and the modified Delphi technique revealed participants’ perceptions of external and internal environmental factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. As is common in qualitative research, quotations were taken from interview transcripts to support researcher aims, illustrate ideas, illuminate experience, evoke emotion and provoke response (Sandelowski 1994). The primary finding of this study is that strategically shaping institutional project reality aligned at the front-end with the temporary uniqueness of the organisational change initiative is essential for the successful implementation of mega public sector infrastructure program of projects. Additionally, the findings show that although the decision to implement a strategic governance framework is based on a combination of trust, power and control mechanisms, the key mechanisms to alleviate the risk of cognitive biases in rationalising decisions is a strategic governance framework predominately associated on situated-based institutional project governance mechanisms. This is particularly relevant and highly influential at the front-end of project policy implementation, or temporary organising, where the ‘trigger’ for sensemaking transpires. This finding emerged from the descriptions of almost all the participants.

The findings also revealed that strategically shaping institutional project reality aligned at the front-end with the temporary uniqueness of the organisational change initiative is determined by four principal mechanisms: collective institutional leadership, informal and formal mechanisms of institutional project work, project reality, and rational agent. With collective institutional leadership, all the participants expressed that such a phenomenon involves creating, maintaining and disrupting institutional project relations aligned at the front-end with the temporary uniqueness of the organisational change initiative. Here the focus is on achieving a relatively stable state of (inter)actions. The participants also articulated that informal and formal mechanisms of institutional project work influenced the relational actor space (inter)actions to form an unique temporary organising institutionalised project reality. This includes four distinct mechanisms of distant associational institutionalisation, distant instrumental institutionalisation, situated associational institutionalisation, and situated instrumental institutionalisation. Most the participants expressed an opinion that a program environment dominated by distant-based institutional project governance mechanisms led to ‘cold,’ asymmetrical and low trusting relations. While a program environment dominated by situated-based institutional project governance mechanisms led to ‘lived,’
symmetrical and high trusting relations. This significantly influenced the level of cognitive biases in rationalising decisions – a rational agent – particularly at the front-end of program policy implementation.
CHAPTER SEVEN: VALIDATION OF FINDINGS BY QUALITATIVE RIGOUR

7.1 Introduction

Chapter Seven Prologue

What the previous chapter did:
Provided the data analysis and interpretation of the case study including grounded theory as the analytic strategy, an inductive top-down approach to theorising, and entering a dialogue for the generation of new theory.

What this chapter does:
Provides the validation of the case study research through ‘qualitative rigour,’ which includes four rigour dimensions of construct validity, internal validity, external validity (or generalizability), and reliability.

What the remaining chapters do:
- Chapter Eight will provide evidence and reflections of the research process.
- Chapter Nine will provide the findings, insights and recommendation for practice and future research.

This aim of this research is to investigate factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. Particularly, with a focus on the muddled and strategic context i.e., complex, dynamic, plural and emergent properties of organisational strategic decision-making, intertwined in often unforeseen ways between different agency and actor (inter)actions. The researcher believed that a better understanding of this phenomenon would enable project managers to implement an effective governance mechanism at the front-end of project policies to eradicate potential ‘hijacking’ of the project shaping process.

This chapter discusses the most critical aspect of qualitative research: the validation of research findings. Firstly, it discusses the dimensions of ‘qualitative rigour’ including reliability, validity and generalizability to enhance qualitative rigour which is researcher centered. At the other end of the spectrum, it also discusses trustworthiness as a mode of validation which includes credibility, transferability, dependability and confirmability. As this is a case study approach, the ‘natural science model’ is discussed as the most appropriate and influential model used to ensure rigour. This model includes construct validity, internal
validity, external validity and reliability as rigour dimensions. Additionally, to ensure high quality rigour, the research as adopted ‘talk the walk’ as a strategy which focuses on the priority ordering of validity types.

### 7.2 Strategies for Qualitative Rigour

The most critical aspect of qualitative research, ‘qualitative rigour’ (or formerly referred to as trustworthy), is heavily debated among the community of qualitative researchers (see Barusch et al. 2011, Bloomberg and Volpe 2008, Morse 2002, Morse 2015, Thomas and Magilvy 2011). For example, Morse (2015) recommends qualitative strategies of reliability, validity (or internal validity), and generalizability to enhance qualitative rigour. In her opinion, strategies for ensuring reliability, which have some caveats, are the development of a coding system and inter-coder agreement (i.e., only for semi-structured interviews), member checks, peer review debriefing (i.e., not usually a reliability issue, except for team research), triangulation, and external audits (i.e., do not ensure reliability). For validity, which all have caveats and limits their application, are prolonged engagement, persistent observation, think and rich description; negative case analysis; peer review or debriefing; clarifying researcher bias; member checking (which is not recommended); external audits; and triangulation. She provides a detailed rationale for the strategies, for example, with external audits she states that ‘external audits may reveal internal linkages as the theory develops, but it is not a routine strategy, and it is of limited use as a tool to achieve validity, not reliability’ (2015, p. 1219). All in all, she states that rigour is achieved through the process of data collection and analysis, which is researcher centered.

At the other end of the spectrum, Thomas and Magilvy (2011) focus on the mode of trustworthiness as proposed by Guba and Lincoln (1989), Lincoln and Guba (1985). This includes the criteria of truth-value (credibility), applicability (transferability), consistency (dependability), and neutrality (confirmability). With credibility, a researcher aims to capture an accurate description or interpretation of participants’ experiences. Strategies include reflexivity, member checking, clarifying bias that a research brings to a study, peer debriefing or peer examination. Transferability focuses on the applicability of research findings or methods in other contexts or with other subjects. Strategies include the richness of the descriptions i.e., thick description, and the amount of detailed information provided by the researcher regarding context. Dependability, which parallels reliability, focuses on the processes and procedures used to collect and interpret the data. Strategies include an audit trail (e.g., discussing how and why the participants were selected for the research study), inter-rater reliability, and confirmability which occurs when credibility, transferability, and dependability have been established. The main strategy here is reflexivity, where a research maintains a sense of awareness and openness to the study. Their rationale is that researchers and their audiences need to have confidence and trust in the research findings, where such criteria facilitates the judging of the quality of a research. Taken together, what all the literature has in common is that
qualitative rigour, or the credibility of ‘scientific research,’ depends on reliability and validity, and the application of the ‘best’ strategies depends, as emphasised by Seale (2002, p. 108), on craftsmanship and ‘methodological awareness,’ that is, the ‘thoughtful application of relevant criteria throughout the research project’ (Barusch et al. 2011). Morse (2015) comes to a similar conclusion with the statement that the ‘best’ strategies are the ones that ‘fit qualitative inquiry while also remaining consistent with concepts used by the larger social science community’ (2015, p. 1220).

As the researcher has undertaken a case study approach, the most appropriate and influential model used to ensure rigour is the ‘natural science model’ (see Eisenhardt and Graebner 2007, Gibbert and Ruigrok 2010, Gibbert et al. 2008, Piekkari et al. 2009). Although the model takes a positivist worldview, researchers tend to use the model as it focuses on concrete research actions, being construct validity, internal validity, external validity, and reliability, rather than abstract criteria to ensure rigour in case study research (Gibbert and Ruigrok 2010), such a view is also adopted from interpretivist scholars (Silverman 2011, 2016, Yin 2014). For example, Yin (2014) argues that researchers should follow systematic procedures, rather than ‘subjective’ judgments, to ensure rigour in case study research. Patton (2002, p. 571) takes a similar view, in that, although there are ‘no clear-cut rules about how to do a credible, high-quality analysis,’ to ensure rigour, researchers should engage in systematic analysis. This includes engaging in systematic search for alternative themes, divergent patterns, and rival explanations, which is similarly advocated by Silverman (2011). Subsequently, this research adopts the four rigour dimensions of construct validity, internal validity, external validity (or generalizability), and reliability to ensure qualitative rigour, or more commonly called the ‘natural science model’ (Gibbert and Ruigrok 2010, Yin 2014). These dimensions have also served as a framework for assessing rigour in case studies in the field of strategic management (see Gibbert et al. 2008), which is highly applicable to this research topic. Table 7-1 provides an outline of the strategies and dimensions adopted for this research.

In addition, other strategies that are imperative for ensuring rigour in case study research are: (a) talk the walk: report concrete research actions rather than abstract criteria; (b) priority ordering of validity types: internal and construct validity over external validity; and, (c) necessity is the mother of rigour: creatively use setbacks and make best use of existing resources (Gibbert and Ruigrok 2010). The authors recommend that with the ‘talk the walk’ strategy, researchers should focus on ‘concrete research actions taken, carefully relaying them to the reader so that he or she may appreciate the logic and purpose of these actions in the context of the specific case study’ (Gibbert and Ruigrok 2010, p. 727). With the ‘priority ordering of validity types’ strategy, researchers should focus on getting the priorities right and demonstrating the relationship among the four validity and reliability criteria. For example, prioritising internal validity and construct validity over external validity and demonstrating relationships among them. The third strategy, ‘necessity is the mother of rigour,’ researchers should focus not only on the ‘talk the walk’ and ‘priority
ordering of validity types,’ but also describing some of the challenges and problems that emerged during the research process. For example, unexpected findings or the way researchers ‘problematized trade-offs and compromises in ensuring rigour in an often disarmingly honest and open way’ (Gibbert and Ruigrok 2010, p. 730). Such qualitative rigour for each dimension will be discussed next.

### Table 7-1: Strategies for Qualitative Rigour adopted for this Research

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Dimensions</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Triangulation (i.e., different data sources including modified Delphi technique), thick description, transcripts and drafts of the evolving case study reviewed by peers (i.e., supervisors), audit trail or clear chain of evidence, and reflexivity.</td>
<td>Construct validity</td>
<td>Procedure leads to an accurate observation of reality (Gibbert and Ruigrok 2010, Patton 2002, Yin 2014), aided by reflexivity to check ‘constructions’ of meaning (Schwartz-Shea 2014).</td>
</tr>
<tr>
<td>Negative case analysis (i.e., rival explanations, falsification or refutation, examining competing views or voices), and reflexivity.</td>
<td>Internal validity</td>
<td>Presence of casual relationships between variables and results, avoid anecdotalism (Gibbert and Ruigrok 2010, Patton 2002, Yin 2014), aided by reflexivity by evolving understandings of purpose and theory (Schwartz-Shea 2014), that are powerful and compelling to defend the research conclusions (Gibbert et al. 2008).</td>
</tr>
<tr>
<td>Use of theory to generalize (i.e., analytic generalization, case-to-case transfer), and rationale for case study selection.</td>
<td>External validity</td>
<td>Generalizability, theories must be show to account for phenomena in other settings (Gibbert and Ruigrok 2010, Patton 2002, Yin 2014), which can also be case-to-case transfer (Onwuegbuzie and Leech 2010, Patton 2002).</td>
</tr>
<tr>
<td>Case study database (i.e., interview transcripts, electronic documentation, etc.), and case study protocol.</td>
<td>Reliability</td>
<td>Absence of random error, transparency and replication (Gibbert and Ruigrok 2010, Patton 2002, Yin 2014).</td>
</tr>
</tbody>
</table>

#### 7.2.1 Construct Validity

With this dimension, I used the strategies of triangulation, thick description, transcripts and drafts of the evolving case study being reviewed by peers, audit trail or a clear chain of evidence, and reflexivity.
Triangulation. Triangulation helped me to identify different realities in order to obtain a ‘true’ picture and thus reduce bias and improve convergence of the data. This included a combination of qualitative (i.e., semi-structured interviews) and quantitative research (i.e., modified Delphi technique) designs, or methodological triangulation, to strengthen the research findings and enrich the interpretations. Such a strategy best matched the research questions. For example, the semi-structured interviews enabled me to control but not lead the interviews for in-depth interviewing (i.e., probing to keep discussions, obtain in-depth information, and clarifications) and develop stronger trustful relationships with participants. Additionally, I gave participants an opportunity to continue the discussion, including adding any other insightful data, by sending participants a copy of the transcribed interview. For example, I asked the following question: ‘Would you like me to send you a copy of the transcribed interview, so you can see if I got it straight or if there is anything you would like to add?’ Participants were also happy for me to continue the interview, if needed, at another convenient time. This was a constructive experience for both the researcher and participants as it enabled both parties to reflect on the research questions asked, and if needed, obtain additional information. From the 17 candidates that decided to participate in the research, three pursued this avenue and provided additional information.

In addition, most participants were known to me either from working together on previous projects or programs, or close colleagues. This included participants at executive level, middle management, and front-line project management ‘troops,’ which provided diversity in the data. Being in such a position was also highly beneficial for data enrichment. For example, participants opened-up more as there was already a high level of antecedent trust, and participants provided or directed me to primary data documents. This saved me significant time searching or requesting for primary data documents under government legislation. For example, access to documents under the freedom of information act in the relevant jurisdiction. Furthermore, I used snowball sampling, via informants, to locate other research participants. This was more troublesome, as participants’ unknown to me through this process were unwilling to participate in the research, especially in a sensitive environment such as government portfolios. I overcame this hurdle through a number of mechanisms. Firstly, some unwilling participants had written memoirs and other similar publications which were rich in data and were seen as a primary data source. Secondly, participants were given the opportunity to contact the primary supervisor if he or she had any questions. One participant decided to exercise this right, and subsequent to reassurance of confidentiality by the primary supervisor, decided too participate in the research. I also encountered times when senior management used time demands as a convenient excuse for not participating. When this happened, I minimised participant’s time demands, made it clear why their investment of time is worthwhile, and gave the option to continue the interview at a later date, if needed. Participants were happy with this flexibility.
I also used archival records as evidence. The rationale being that the case study focused on the past, and that such analysis of evidence, in this case, provided valuable information. For example, considering the significance of the case study there were a number of auditor general reports, independent taskforce reports, and other parliamentary inquiries on the case study. All of these were seen as high quality data sources, as they are open and transparent (i.e., open to public scrutiny). However, such a process does have limitations. For example, some records requested under the relevant freedom of information legislation were not accurately stored. To overcome this, I was persistent and keep referencing the relevant legislation to gain access to the documents. However, upon retrieval of the documents it came with caveats. For example, a government agency imposed a search fee. Such a fee was outside the scope of the research funding, and consequently, I had to get an independent agency to review the imposed search fee. After arguing the significance of the research findings to the wider project management community and references to precedent legal cases, the government agency revised their decision, removing the search fees – almost one year after the initial request. In addition, other limitations are that some aspects of reality reflected in the archived records differed from the reality experienced by the participants that lived it. Government reports were also limited to scope including purpose, time and funding, which also tends to have an element of bias towards the government agency that procured the report. However, these archival records were used together with independent information to shed light on the case study. This is where thick description was beneficial to the research process, which will be discussed later. In addition to archival records, I also obtained other primary data documents including drawn maps and diagrams of organisational facilities, and other secondary data documents including organisational records and program information readily available on the internet.

In addition, to validate the research findings, I also used a modified Delphi technique (which is similar to focus group interviews), as described in section 4.6 Collection of Evidence. Using the modified Delphi technique for this case study had significant advantages. Although conducting the number of rounds is variable and dependent upon the purpose of the research (Skulmoski et al. 2007), in line with the technique’s fundamental rationale, achieving consensus measurement, including group stability and rigour, are key components of the Delphi technique (Von der Gracht 2012). For this research study, the modified Delphi technique included the following: round one, 11 participants or SMEs were handpicked by me, as opposed to random sampling, due to my knowledge about the population based on predetermined criteria. A cover letter was then provided inviting them to participate in the Delphi outlining the rationale for the Delphi, their requirements including timeframe for completion, and benefits associated with participation. Seven participants or SMEs accepted (55 percent response rate) to participate, were then provided with a briefing paper outlining the main research findings with a conceptual framework, definitions, and articulated propositions. SMEs were encouraged to provide written feedback, as suggested by Loo (2002), this reduces intentional and unintentional noise, for example, irrelevant and non-productive communication
(Strauss and Zeigler 1975). They were then directed to an online questionnaire (i.e., SurveyMonkey). Both quantitative (i.e., distribution statistics) and qualitative data (i.e., extraction of themes) were then analysed and returned to participants via a feedback report. To enhance rigour, I defined group stability and consensus prior to conducting the modified Delphi technique. These criteria were as follows: mean rating of $\geq 3.5$, a coefficient of variation of $\leq 30\%$, and with $\geq 75\%$ agreement (percentage of panel members scoring ‘4’ = Agree or ‘5’ = Strongly Agree on a 5 point Likert scale. Termination of the Delphi from further rounds, or stopping criterion, was determined when another round would not significantly add to the results, based on the predefined criteria. Consensus was achieved over round one and thus no further rounds were necessary. Participants were provided with the following propositions that emerged and were articulated from the research findings:

**Proposition 1.** Creating, maintaining and disrupting institutional project relations requires collective institutional leadership.

**Proposition 2.** Creating, maintaining and disrupting institutional project relations requires a relatively stabilised and strategic governance framework of formal or regulative (e.g., contracts, agreements, program guidelines, formal meetings, etc.) governance mechanisms, and informal or normative (e.g., norms, values, beliefs, morals, casual meetings, etc.) governance mechanisms.

**Proposition 3.** The decision to implement a strategic governance framework is based on a combination of trust, power and control mechanisms. In a project environment with a relatively weak institutional governance framework, power and regulative (or formal) control tend to be the dominate governance mechanisms to co-ordinate expectations and (inter)actions between individuals and organisations.

**Proposition 4.** The decision to implement a strategic governance framework is based on a combination of trust, power and control mechanisms. In a project environment with a relatively strong and stabilised institutional governance framework, trust and informal (or normative) control tend to be the dominate and coevolving governance mechanisms to co-ordinate expectations and (inter)actions between individuals and organisations.

**Proposition 5.** When a relatively strong and stabilised institutional governance framework is legitimately (e.g., change in human resources, change in project scope, etc.) or illegitimately (e.g., self-serving interests, hidden agendas, opportunistic behaviour, etc.) disrupted, collective institutional leadership and informal (or normative) control with collaborative co-creation tend to be the dominate mechanisms to co-ordinate expectations and (inter)actions between individuals and organisations.

**Proposition 6.** A project environment with a strategic governance framework which is dominated by power i.e., powerful decision makers and regulative (or formal) control tends to increase the risk
of cognitive biases (e.g., overconfidence, illusory control, strategic misrepresentation or manipulation, outcome etc.) in rationalising decisions.

**Proposition 7.** A project environment with a relatively strong and stabilised institutional governance framework tends to alleviate the risk of cognitive biases (e.g., overconfidence, illusory control, strategic misrepresentation or manipulation, outcome etc.) in rationalising decisions.

Consensus was achieved over round one and thus no further rounds were necessary, as illustrated in table 7-2. Following the final round, I prepared a comprehensive report (i.e., debrief) and distributed it to all group participants with the Delphi findings, and thanked them for their contribution to the research (see Appendix C).

**Table 7-2: Modified Delphi Results**

<table>
<thead>
<tr>
<th>Proposition no.</th>
<th>Comments (aggregated, if and when needed)</th>
<th>Round 1 Score (mean, (σ), median, coefficient of variation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Project relations usually involves a team of people. Leadership at the corporate level feeds down to CEO's, senior managers and project managers. If all are aligned relations can flourish, if not, a small number of people are not aligned, can disrupt projects and lead to delays, cost overruns, damage to corporate branding and failure.</td>
<td>4.33, (0.52), 4.0, 0.12</td>
</tr>
<tr>
<td>P2</td>
<td>Projects need the right mix of hard and soft project controls to be successful. The tendency to try to manage projects and control risks through contracts is flawed. Similarly, a complete reliance on informal relationships creates a lack of accountability and reduces ability to affect great outcomes.</td>
<td>4.67, (0.52), 5.0, 0.10</td>
</tr>
<tr>
<td>P3</td>
<td>Organisations look to contracts, hard policies and processes to manage where trust and relationships are weak. However in situations where there is too much trust (and not enough formality), accountability is diminished. The development of governance frameworks need to be inclusion of key stakeholders or else it will not be embraced by the numbers.</td>
<td>4.00, (0.63), 4.0, 0.16</td>
</tr>
<tr>
<td>P4</td>
<td>I don't necessarily think this is the norm as organisations seek to maintain accountability across project participants, even when there is a degree of trust.</td>
<td>4.00, (0.63), 4.0, 0.16</td>
</tr>
</tbody>
</table>
Roles and expectations are defined. This enables the project to be reviewed against defined milestones and individuals to be accountable.

**P5**

People turn to relationships when they lose faith in the governance mechanisms.
The aim is to create a work environment for all to flourish.

**P6**

Some projects need strong leadership and people who can make hard decisions. There is a balance as to how this is communicated to ensure people are aligned.

**P7**

Well established and accepted governance mechanisms should act as quality assurance mechanisms to test and reframe cognitive biases and rationalising behaviour.

This provides clear corporate direction, an environment for individual to flourish and their work to be valued. It is still up to the leaders to ensure those values are respected and implemented. If not commence a review cycle of the governance framework.

Following the final round, I prepared a comprehensive report (i.e., debrief) and distributed it to all group participants with the Delphi findings, and thanking them for their contribution to the research. However, this strategy also had limitations. For example, I had to extend the first round by a further two weeks as a number of expert panellists were unable to complete the first round by the deadline. Reasons included work commitments or on leave. In addition, I sent reminder emails to participants that had not completed the survey prior to the end date. All in all, I had to be on ‘top of my game,’ thinking proactively with the establishment of predefined criteria and sending reminder emails to participants.

**Thick description.** With this strategy, I focused on thick description-as-inscription including micro thick description, macrohistorical thick description, relational, and interactional (Denzin 2001), as described in section 6.3 Interpretation. This was achieved through the triangulation of data to capture real-life experiences or meanings present in the sequence of experiences. With micro thick description, I described small slices of (inter)action, for example, with the program announcement by the Prime Minister. With respect to macrohistorical thick description, I brought earlier parts of the case study alive and in realistic
detail, for example, the description of the national partnership agreement. I also brought relationships alive in the case study by describing partner (inter)actions from a macro- and micro-institutional level. Finally, with interactional thick description, I focused on the interactions between multiple individuals and organisations. All in all, I aimed to capture and describe the ‘true’ meanings, as a real narrative, of individual and organisational (inter)actions. Such a narrative for this case study was achieved from describing the initiation of program implementation, the macro- and micro-institutional (inter)actions, mechanisms and activities thereof, of individuals and organisations, through to program ‘completion.’ However, as with other strategies, limitations were evident. Such limitations were in the data gathering process, which is highlighted in the triangulation strategy. For example, I could have potentially gained richer information if certain actors were willing to participate in this research. However, to overcome this I deployed other tactics, as described in the triangulation strategy.

*Transcripts and drafts of the evolving case study reviewed by peers.* With this strategy, I undertook a ‘peer review’ process by having my supervisors review transcripts and the evolving cases study. For example, during the data gathering and interpretation process, I would email my supervisors a description of the ‘real-time’ findings of the case study. Such a process, seen as reflexivity, also enabled me to check ‘constructions’ of meaning (i.e., true reflections of reality). Even though my supervisors may have been passive, at times, and proactive at other times by reviewing the ‘real-time’ findings, they provided constructive feedback and recommend a strategy or tactic to enrich the data gathering process. Having such expertise and leadership, ‘constructive behaviour,’ offering alternative points of view was invaluable to the research process. However, such a strategy does have a limitation. Supervisors and other ‘peer reviewers,’ are not closest to the data nor responsible for the analysis, thus they cannot offer nor gain the true meaning of reality or the participants experience – the thick description, and the ‘best’ they can do is offer alternative points of view. The final responsibility for the results rests with the researcher.

*Audit trail or clear chain of evidence.* This strategy was implemented right from the start of the research process. I complied with the university’s ethics process including the retention and storage of data i.e., an audit trail or clear chain of evidence, on the university’s secure systems where access is limited i.e., to me and my supervisors. I embraced the mindset that such a clear chain of evidence should be able to be presented in ‘court,’ should the need arise. In addition, as I have experience in managing major projects and programs in the government sector, my project files were randomly audited by the auditor-general’s office, thus I have a deep appreciation of this process.

### 7.2.2 Internal Validity

With this dimension, I used the strategies of negative case analysis, sometimes referred to as deviant case analysis, (i.e., rival explanations, falsification or refutation, examining competing views or voices), and
reflexivity. I developed a theoretical proposition and achieved good-quality analysis when a pattern of independent variables became mutually exclusive. This also included achieving objectivity. For example, I looked for differences, looking for deeper processes, searching for similarities and differences, comparing data fragments, and writing in a reflective journal, see section 8.2 Research Reflections. In addition, this is where grounded theory provided significant value, as a constant comparative method of data analysis. With this process, I went through a number of interactive stages, forwards and backwards, with the aim to gain insightful understanding of the case study and topic under investigation. I read and reflected, explored and played, coded and connected, reviewed and refined, worked backwards and forwards through various data sources. This was aided by a reflective journal where I wrote notes, generated ideas and insights, asked questions of relationships, and draw models. Theoretical ideas or propositions where revised and redesigned and compared with the data. I continued this until I achieved theoretical saturation i.e., a coherent and compelling explanatory story. This enabled me to avoid anecdotalism, and unable to falsify or refute the relationship between the variables or mechanisms. This analysis, although exhaustive at times, provided richness in understanding the phenomenon and the related constructs and the opportunity for wider theoretical resonance or the transferability of the research findings.

7.2.3 External Validity

With this dimension, I used the strategies of use of theory to generalize (i.e., analytic generalization, case-to-case transfer), and the rationale for case study selection. I achieved analytic generalization through refining and advancing the theoretical concept or mechanisms i.e., inferences derived from the typical case study. This means that generalization is ‘limited to those cases that are identified as similar: qualitatively identical’ (Rohlfing 2012). The objective of this case study is to investigate factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. The population of interest involves, hereinafter, three boundary dimensions: an institutional dimension (project institutionalisation), a temporal dimension (implementation), and elements of a substantive dimension (successful and mega public sector infrastructure program of projects). Subsequent the empirical analysis, the proposition was refined with a change in the scope conditions (see Rohlfing 2012). The case study showed that ‘collective institutional leadership,’ rather than a ‘project institute,’ and ‘informal and formal mechanisms of institutional project work,’ rather than ‘institutional-based governance,’ leads to the successful implementation of mega public sector infrastructure program of projects. While the other mechanisms of ‘project reality’ and ‘rational agent’ remain. Consequently, the scope condition ‘project institutionalisation’ is relaxed and extends to relational embeddedness as a ‘collective’ leading the relational actor space through ‘front-end institutional project work,’ and the four distinct mechanisms of institutionalisation in rationalising decisions. For example, relational embeddedness that is predominately associated with an emergent and situated institutional phenomenon will increase the strength and project performances, whereas, relational embeddedness that is predominately associated with
a bureaucratic and distant institutional phenomenon will decrease the strength and project performances. While the temporal boundary and substantive conditions remain. Table 7-3 provides case-to-case transferability or extrapolation for a selection of cases of the population that support the causal inferences.

Table 7-3: Case-to-Case Transferability or Extrapolation

<table>
<thead>
<tr>
<th>Case</th>
<th>Institutional Dimension</th>
<th>Temporal Dimension</th>
<th>Substantive Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Australia</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australian National</td>
<td>Predominately associated with bureaucratic, distant-based institutional project governance mechanisms and consequentialist reasonings (Parliament of Australia 2016), suggesting weak project institutionalisation i.e., insufficient alignment at the front-end with the temporary uniqueness of the project, and behaviour that is less than optimally rational.</td>
<td>Authorised by the Commonwealth government in 2009, planned to be delivered over an eight-year construction period (Commonwealth of Australia 2011).</td>
<td>Budgeted at AUD $43 billion, affecting Australia’s national population of about 23 million people including businesses (The Treasury 2009), failing to achieve most of its strategies and benefits (Wilson 2014).</td>
</tr>
<tr>
<td>New Royal Adelaide Hospital PPP Project</td>
<td>Predominately associated with bureaucratic, distant-based institutional project governance mechanisms and consequentialist reasonings (Auditor-General's Department of South Australia 2015), suggesting weak project institutionalisation i.e., insufficient alignment at the front-end with the temporary uniqueness of the project, and behaviour that is less than optimally rational.</td>
<td>Authorised by the South Australian government in 2007, planned to be delivered over nine years (Auditor-General's Department of South Australia 2015).</td>
<td>AUD $2.3 billion, affecting South Australia’s population of about 1.6 million people, failing to achieve most of its strategies and benefits (Auditor-General's Department of South Australia 2015).</td>
</tr>
<tr>
<td>Western Sydney Infrastructure Plan</td>
<td>Predominately associated with bureaucratic, distant-based institutional project governance mechanisms and consequentialist reasonings (Roads &amp; Maritime</td>
<td>Authorised by the New South Wales government in 2014, planned to be delivered over ten years (Roads &amp; Maritime</td>
<td>Budgeted at AUD $3.6 billion, affecting New South Wales population of about seven million people</td>
</tr>
</tbody>
</table>
## Case | Institutional Dimension | Temporal Dimension | Substantive Dimension
--- | --- | --- | ---
**Australian Future Submarine Program** | Predominately associated with bureaucratic, distant-based institutional project governance mechanisms and consequentialist reasonings (Roos 2015, Spong 2015), suggesting weak project institutionalisation i.e., insufficient alignment at the front-end with the temporary uniqueness of the project, and behaviour that is less than optimally rational. | Authorised by the Commonwealth government in 2015 (Commonwealth of Australia 2015), planned to be delivered late 2040s to 2050 (Department of Defence 2016a, 2016b). | Budgeted at AUD $50 billion, affecting Australia’s national population at about 23 million people (Department of Defence 2016b), failing to achieve most of its strategies and benefits. |
**Nuclear Fuel Cycle Project** | Predominately associated with bureaucratic, distant-based institutional project governance mechanisms and consequentialist reasonings (Government of South Australia 2016), suggesting weak project institutionalisation i.e., insufficient alignment at the front-end with the temporary uniqueness of the project, and behaviour that is less than optimally rational. | Authorised by the Governor of South Australia in 2015 (Government of South Australia 2015), planned to be delivered between 2035 to 2045 (Government of South Australia 2016). | AUD $41 billion, affecting South Australia’s population of about 1.6 million people (Government of South Australia 2016), failing to achieve most of its strategies and benefits. |
**Hong Kong** | Predominately associated with bureaucratic, distant-based institutional project governance mechanisms and consequentialist reasonings | Authorised by the Government of Hong Kong in the late 1990s, planned to be delivered | Budgeted at HKD $65 billion, affecting a population of about seven million people, |

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<table>
<thead>
<tr>
<th>Case</th>
<th>Institutional Dimension</th>
<th>Temporal Dimension</th>
<th>Substantive Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Express Rail Link Project</td>
<td>reasonings (Hong Kong Government 2014), suggesting weak project institutionalisation i.e., insufficient alignment at the front-end with the temporary uniqueness of the project, and behaviour that is less than optimally rational.</td>
<td>2015 (Hong Kong Government 2014).</td>
<td>failing to achieve most of its strategies and benefits (Hong Kong Government 2014).</td>
</tr>
<tr>
<td>Hong Kong – Zhuhai – Macao</td>
<td>Predominately associated with bureaucratic, distant-based institutional project governance mechanisms and consequentialist reasonings (Wikipedia 2016b), suggesting weak project institutionalisation i.e., insufficient alignment at the front-end with the temporary uniqueness of the project, and behaviour that is less than optimally rational.</td>
<td>Authorised by the Government of Hong Kong in 2002, planned to be delivered 2016 (Wikipedia 2016b).</td>
<td>Budgeted at HKD $83 billion, affecting a population of hundreds of millions of people in Hong Kong, Macau and Zhuhai, failing to achieve most of its strategies and benefits (Wikipedia 2016b).</td>
</tr>
<tr>
<td>West Kowloon Cultural District</td>
<td>Predominately associated with bureaucratic, distant-based institutional project governance mechanisms and consequentialist reasonings (Wikipedia 2016c), suggesting weak project institutionalisation i.e., insufficient alignment at the front-end with the temporary uniqueness of the project, and behaviour that is less than optimally rational.</td>
<td>Authorised by the Government of Hong Kong in 2001, first phase planned to be delivered 2015 and second phase 2026, respectively (Wikipedia 2016c).</td>
<td>Budgeted at HKD $21.6 billion, affecting a population of about seven million people (Wikipedia 2016c), failing to achieve most of its strategies and benefits (Lee 2015).</td>
</tr>
<tr>
<td>Cyberport</td>
<td>Predominately associated with bureaucratic, distant-based institutional project governance mechanisms and consequentialist reasonings (LegCo 2014b),</td>
<td>Authorised by the Government of Hong Kong in 1999, planned to be delivered in 2004 (LegCo 2014b)</td>
<td>Budgeted at HKD $13 billion, affecting a population of about seven million people (Wikipedia 2016a),</td>
</tr>
</tbody>
</table>
Improving the Link between Project Management and Strategy to Optimise Project Success

<table>
<thead>
<tr>
<th>Case</th>
<th>Institutional Dimension</th>
<th>Temporal Dimension</th>
<th>Substantive Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kai Tak Cruise Terminal</td>
<td>Suggesting weak project institutionalisation i.e., insufficient alignment at the front-end with the temporary uniqueness of the project, and behaviour that is less than optimally rational.</td>
<td>Authorised by the Government of Hong Kong in 2006, planned to be delivered in 2016 (LegCo 2014a).</td>
<td>Failing to achieve most of its strategies and benefits (LegCo 2014b).</td>
</tr>
<tr>
<td>Authorised by the Government of Hong Kong in 2006, planned to be delivered in 2016 (LegCo 2014a). Budgeted at HKD $2.4 billion, affecting a population of about seven million people (LegCo 2006), failing to achieve most of its strategies and benefits (LegCo 2014a).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hong Kong International Airport Master Plan 2030</td>
<td>Predominately associated with bureaucratic, distant-based institutional project governance mechanisms and consequentialist reasonings (LegCo 2008), suggesting weak project institutionalisation i.e., insufficient alignment at the front-end with the temporary uniqueness of the project, and behaviour that is less than optimally rational.</td>
<td>Authorised by the Government of Hong Kong in 2012, planned to be delivered in 2023 (LegCo 2015).</td>
<td>Budgeted at HKD $86.2 billion, affecting a population of about seven million people (LegCo 2015), failing to achieve most of its strategies and benefits.</td>
</tr>
<tr>
<td>Authorised by the Croatian government in 2000, planned to be delivered in 2020 (Croatian government). Budgeted at HRK kn11.23 billion, affecting a population of about four million people (Croatian government).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Croatia</td>
<td>Predominately associated with bureaucratic, distant-based institutional project governance mechanisms and consequentialist reasonings (LegCo 2008), suggesting weak project institutionalisation i.e., insufficient alignment at the front-end with the temporary uniqueness of the project, and behaviour that is less than optimally rational.</td>
<td>Authorised by the Croatian government in 2000, planned to be delivered in 2020 (Croatian government).</td>
<td>Budgeted at HRK kn11.23 billion, affecting a population of about four million people (Croatian government).</td>
</tr>
<tr>
<td>Case</td>
<td>Institutional Dimension</td>
<td>Temporal Dimension</td>
<td>Substantive Dimension</td>
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<tr>
<td></td>
<td>reasonings (Legac et al. 2014), weak project institutionalisation i.e., insufficient alignment at the front-end with the temporary uniqueness of the program, and behaviour that is less than optimally rational.</td>
<td>delivered in 2003 (Legac et al. 2014).</td>
<td>people, failed to achieve most of its strategies and benefits (Legac et al. 2014).</td>
</tr>
<tr>
<td><strong>Germany</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berlin-Brandenburg Airport Project</td>
<td>Predominately associated with bureaucratic, distant-based institutional project governance mechanisms and consequentialist reasonings (Fiedler and Wendler 2016), suggesting weak project institutionalisation i.e., insufficient alignment at the front-end with the temporary uniqueness of the project, and behaviour that is less than optimally rational.</td>
<td>Authorised by the German government, subsequent German Reunification in 1990 and planned to be delivered in 2011 (Fiedler and Wendler 2016).</td>
<td>Budgeted at EUR €2.4 billion, affecting a population of about 80.6 million people, failing to achieve most of its strategies and benefits (Fiedler and Wendler 2016).</td>
</tr>
<tr>
<td><strong>Qatar</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hamad International Airport Project</td>
<td>Predominately associated with bureaucratic, distant-based institutional project governance mechanisms and consequentialist reasonings (Senouci et al. 2016), suggesting weak project institutionalisation i.e., insufficient alignment at the front-end with the temporary uniqueness of the project, and behaviour that is less than optimally rational.</td>
<td>Authorised by the ruling Emir of Qatar in 2003, planned to be delivered in 2009 (Doha News Team 2013).</td>
<td>Budgeted at QAR ﷼ 5.5 billion, affecting a population of about four million people, failing to achieve most of its strategies and benefits (Doha News Team 2013).</td>
</tr>
</tbody>
</table>

Although the selection of cases is limited, which can be expanded globally, they are highly generalizable to the population of cases. What the selected cases show is that they are experiencing the contagious effects...
of malpractice in project policy implementation i.e., tribalism and Machiavellianism, and in the process, failing (or failed) to achieve most of their strategies and benefits. This is predominately due to a project environment being associated with bureaucratic, distant-based institutional project governance mechanisms i.e., insufficient alignment at the front-end with the temporary uniqueness of the organisational change initiative, and consequentialist reasonings – thus signalling a low performing temporary project environment – which leads to unsuccessful implementation. Such processes are typical of project management seen as an instrumental technocratic process – ‘iron-cage’ of project management, rather than project management as an institutional emergent process. With the consideration of the theoretical constructs, such project policy contagious effects can be significantly minimised, as individuals and agency actors would be ‘seeing’ the emergent reality through one lens i.e., a temporary alliance or an unique temporary organising institutionalised project reality rationalising decisions, instead of multiple lenses where the project world is opaque and at times ‘murky,’ and thus, a breeding ground for the project plague.

The selection of case study selection, which focused on cross-case characteristics and adopted the typical case method, was thoroughly presented in section 4.4 Research Methodology.

7.2.4 Reliability

With this dimension, I used the strategies of case study database (i.e., interview transcripts, electronic documentation, etc.), and case study protocol. My aim here was to achieve transparency and ‘replication’ i.e., that a later investigator could, as reasonably as possible, arrive at the same findings and conclusions). During this process, I asked myself: ‘Could I repeat my own work?’ This is where a case study database and protocol were invaluable. Throughout the whole research process, I created and maintained a database with all the research data (e.g., field notes, case study documentation, memos, narrative compilations) – which is also in-line with the university’s ethics approval. Although a time-consuming process, it was invaluable, for example, for the retrievable of documents including ‘lost’ documents. With the case study protocol strategy, I presented to the university’s panel at my confirmation of candidature the following: purpose and objectives of the research, research questions, relevant readings on the topic, theoretical framework and methodological approach for the research, potential participant organisations, timetable of expected research tasks, and ethics approval to conduct the research – this also includes procedures for protecting human subjects. This strategy continually co-evolved during the research process i.e., asking supervisors questions.

7.3 Summary

This chapter discussed the most critical aspect of qualitative research being the validation of research findings. This included an overview of ‘qualitative rigour,’ trustworthiness, and the ‘natural science model’
as strategies for validation. I adopted the ‘natural science model’ as this is the most appropriate strategy for case study research. This included a discussion on the four dimensions of validity: construct validity, internal validity, external validity, and reliability. Construct validity leads to an accurate observation of reality which was achieved through triangulation, thick description, transcripts and drafts of the evolving case study reviewed by peers, audit trial and reflexivity. Internal validity leads to the presence of casual relationships between variables and results, and avoids anecdotalism which was achieved through negative case analysis and reflexivity. External validity leads to generalizability which was achieved through use of theory to generalize, and rationale for case study selection. Reliability leads to an absence of random error, transparency and replication which was achieve through the case study database and case study protocol. Additionally, a deeper sense of rigour this was achieved through ‘talk the walk’: priority ordering of validity types: internal and construct validity over external validity.
CHAPTER EIGHT:
RESEARCH REFLECTIONS (INTELLECTUAL RIGOUR)

8.1 Introduction

Chapter Eight Prologue

What the previous chapter did:
Provided the validation of the case study research through ‘qualitative rigour’ which included four rigour dimensions of construct validity, internal validity, external validity (or generalizability), and reliability.

What this chapter does:
Provides evidence and reflections of the research process (‘intellectual rigour’) this includes linking theory to practice and documenting my development as a researcher.

What the remaining chapters do:
- Chapter Nine will provide the findings, insights and recommendation for practice and future research.

This aim of this research is to investigate factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. Particularly, with a focus on the muddled and strategic context i.e., complex, dynamic, plural and emergent properties of organisational strategic decision-making, intertwined in often unforeseen ways between different agency and actor (inter)actions. The researcher believed that a better understanding of this phenomenon would enable project managers to implement an effective governance mechanism at the front-end of project policies to eradicate potential ‘hijacking’ of the project shaping process.

This chapter provides evidence and reflection of the research process, taken from an ‘intellectual rigour’ perspective. This includes the research supervision, critical thinking, relationships with participants, gaining access to freedom of information data, journal publication, linking theory to practice, post-PhD, and documenting my development as a researcher. I begin a discussion on research reflection and then deeply discuss the process of emerging as a researcher. I adopt the reflective approach of ‘intellectual rigour,’ which is an essential part of methodological rigour i.e., trustworthiness, and the research process (Diefenbach 2008, Ortlipp 2008, Pyett 2003, Sinkovics and Alfoldi 2012).
8.2 Research Reflections (Engaged Scholarship)

No research journey can start without a researcher asking: Why am I undertaking this research project? Generally, from a PhD perspective, there are a number of reasons or motivations. For example, acquiring a research credential for academia or industry, a drive to find a solution to a long-held question or a need to prove oneself (Petre and Rugg 2010). Whatever motivates a researcher to undertake a research journey, a number of factors are clear. Firstly, every journey is different, and secondly, it is a transitional journey to becoming a researcher (Brydon and Fleming 2011), or engaged scholarship (Van De Ven 2007). In particular as part of the qualitative research process (Ortlipp 2008). Although there is plethora of literature on the research ‘journey,’ for example, books written by experts on conducting the research process with pre-determined steps and phases, although helpful, it is an abstract of PhD research reality. For it fails to fathom and hides the truth, and the craftsmanship needed, of becoming a researcher. Brydon and Fleming (2011, p. 996) succinctly describe it as ‘a journey fraught with twists and turns, with few defined signposts and the need to constantly adapt to unexpected events.’ And as aptly described by Richards (2009, p. 133) the ‘ultimate terror of a research project is that you can’t know at the start where it will end.’ For this implies, as stressed by Etherington (2004), that the means to achieving the end, the ‘becoming,’ is fundamental to a PhD research project. This is especially true for research quality and reflexivity (Schwartz-Shea 2014). Here a researcher keeps a reflective journal, a ‘kind of diary in which the investigator on a daily basis, or as needed, records a variety of information about self (hence the term ‘reflective’) and method’ (Lincoln and Guba 1985, p. 327, emphasis in original). Subsequently, the reflective approach adopted for this research is ‘intellectual rigour’ (Diefenbach 2008). According to Diefenbach (2008, p. 877) in qualitative research ‘one can only draw analytical but not practical lines between research and researcher, ‘reality’ and making sense of it, data and their interpretation, social science and social practice.’ This enables a researcher to make implicit assumptions (i.e., issues that are close to a researcher’s own experiences and daily life), interests, and objectives concerning the research process as explicit as possible, thus, adding another way to see ‘things’ and increasing the validation of the research process and findings (Diefenbach 2008, Ortlipp 2008, Pyett 2003, Sinkovics and Alfoldi 2012).

8.2.1 Emerging as a Researcher

Why start a research journey which according to Wright and Cochrane (2000) calls for a high degree of emotional and financial investment? Where you will spend hours, days or even weeks isolated from the ‘real’ world. Such a journey can be seen from a number of perspectives: (a) research as the gathering of information; (b) research about the discovery of the truth; (c) research as an insightful process; (d) research viewed as re-search; and (e) research as finding solutions to problems (Meyer et al. 2005). From my perspective, the research journey is seen as an ‘insightful process’ and ‘finding solutions to problems,’ as my research journal illustrates.
When I think about the research journey including the emotional investment and spending hours, days and even years isolated from the ‘real’ world, let alone the most important people in my life, my family, I ask myself: Why? Why do you really want to undertake a PhD research project? Surely there are other ways? Are you insane? This is an easy question to answer. Perhaps I can break it down which may make it clearer. Firstly, my passion for PM and finding solutions to problems, which I gained some experience in while working on major projects and programs within the government sector. I want to master the art of finding solutions to problems in PM including deeply understanding the concept of ‘influential factors on strategic decision-making for the implementation of mega public sector infrastructure program of projects.’ This will create new PM insights, knowledge and advance the profession. Secondly, although I will be spending a significant portion of my time away from the ‘real’ world and my family, in the medium to long term, such an investment will be worth it! As I am following my passion. Lastly, because of the professionalism, expertise and influence of my primary supervisor, which I was fortunate to see during my MPM at RMIT University. (Research Journal 01/10/2012)

The single most important factor in doctoral students’ candidature is their relationship with their supervisor (Halbert 2015). According to Franke and Arvidsson (2011, p. 8) research supervision ‘can be regarded as a knowledge and relational process which takes place in the encounter between doctoral student and supervisor.’ Such research supervision can be described as research practice-oriented supervision and research relational-oriented supervision (Franke and Arvidsson 2011). With research practice-oriented supervision the supervisor and student participate in common research practice i.e., student learns by participating in a research practice with his/her supervisor, and with research relational-oriented supervision the supervisor and student lack a common research practice i.e., student often works alone on a research project under the supervision of a more experienced researcher. My research supervision was predominately seen as research relational-oriented supervision with some elements of research practice-oriented supervision as a reflection in my research journal illustrates.

Considering that I am studying externally i.e., interstate, I expect that the supervisory relationship to be less practice-oriented. However, my primary supervisor does get me involved in some practice-oriented supervision, such as peer reviewing articles. Although I am not ‘really’ participating in the research process, for example, a research project initiated by the school, it does provide me with the opportunity to explore the research/academic field. Additionally, it gives me an opportunity to see the world from an academic or senior researcher perspective. However, I do reflect now and then about how good it would be to actually work on a research project with my supervisors and apply some of the lessons learnt to my research project. For example, the chapters on research design and analysis. I would also get to see how the ‘masters of the research field’ apply their knowledge and skills. But then again, reality hits. Where would I get time to commit to another research project? I am already bombarded with all the work of writing my research project including conference papers and journal articles. A way around this would be to read the latest papers published by my supervisors and learn – breaking down the article into
sections. However, achieving a better balance between research practice-oriented and research relation-oriented supervision would have been the pinnacle of my PhD research journey. (Research Journal 04/07/2016)

Critical reflection of my research journey began to have an effect on my research process i.e., questioning how I could improve my research design and analysis process. Such a process goes beyond achieving methodological rigour (Ortlipp 2008). This was the beginning of 'writing as a method of inquiry' (Richardson and Pierre 2005) with the linking of theory to practice. I was beginning to learn more about myself and my research topic. Such a reflective process was particularly evident in my literature review and case study selection. Ultimately, the intention of the literature review is to ‘demonstrate a professional grasp of the background theory’ (Bruce 1994, p. 218) which continues throughout the thesis. Examiners expect candidates to demonstrate coherent and substantive use (Holbrook et al. 2007). With coherent use, examiners focus on a candidate’s (in)ability to select literature and position it to advance an argument, and the use of references to support an argument. While with substantive use, examiners focus on substantial familiarity with and systematic treatment of the literature. This also includes ‘critical engagement and sustained depth of immersion throughout the thesis’ (Holbrook et al. 2007, p. 346). Additionally, as part of the research development process doctoral students are expected to do this independently (Franke and Arvidsson 2011). Such scholarly work and disciplined inquiry is illustrated in my research journal.

As I began my research journey, I read a number of books on writing a thesis. An emerging theme that surfaced from the books is that conducting and writing a literature review requires ‘mastership.’ The art of critical thinking and analysis. But, how do I master the literature review process? I begin by reading more books and papers on the literature review process including argumentation theory. I also enrol into the university’s online module ‘critical and creative thinking,’ which aims to improve students’ understanding of the role and nature of critical and creative thinking within their research practice. This should be enough for now and I continue the writing process. However, during this process I pause and tell myself: You do not need to master it straight away, it is a learning process, and expect to make a number of amendments as you proceed with the literature review. As with perhaps other doctoral students it is a ‘vehicle for learning’ (Bruce 1994). (Research Journal 02/08/2013)

What the books, papers and module on ‘critical and creating thinking’ taught me was the essentiality of ‘critical thinking and making inferences.’ Such a process can be seen as ‘acquiring, developing, and exercising the ability to grasp inferential connections holding between statements’ (Mulnix 2012, p. 464). However, prior to grasping inferential connections, a researcher should decide on the research approach (Creswell 2014). According to Creswell (2014, p. 4) qualitative research focuses on ‘exploring and understanding the meaning of individuals or groups ascribe to a social or human problem, and quantitative research focuses on testing objective theories by examining the relationship among variables.’ Consequently, and taking-into-account the research objectives, the most appropriate research approach is a
qualitative case study, as it will shed light on a population of cases (Gerring 2007), which is illustrated in my research journal.

Prior to submitting my research proposal, I need to think deeply on the research approach. Which approach is the most appropriate for this project? After reading a number of books on ‘developing research proposals,’ and considering my background, research objectives, rationale and questions, and resource constraints, I believe that a qualitative case study approach is the best methodology. Additionally, as gaining access to data is essential for this research project, or any other qualitative research, I believe the most ‘fit’ case study that encapsulates the dimensions and is an excellent ‘qualitative’ representation for the population of cases is the BER program. (Research Journal 2/12/2012)

Continuing the critical thinking paradigm, from another perspective, Klein (2011, p. 210) paraphrasing Sternberg (1996) states that critical thinking involves ‘analytical thinking, such as analysing, critiquing, judging, evaluating, comparing and contrasting, and is different from creative thinking and practical thinking.’ Although there are competing definitions of critical thinking, what the authors stress is that the fundamental trait of critical thinking is the ability to analyse and make accurate and informed inferences. Such critical thinking is illustrated in my research journal.

After thinking deeply and analysing a number of papers, I believe that I have finally come to an answer about project reality which is based on the doctrines of power, rationality and control: power defines reality but not what reality ‘really’ is. People create the reality they want. Also, actors that reveal rationality as rationalisations come to grief and must use persuasion (rhetoric) or illusions to continue to possess power. As they say, ‘truth is the first casualty of war.’ Propagating the rationalisation of rationality defines reality and hence is an essential feature of the rationality of power. As a number of scholars say ‘up front rationality dominates, frequently as rationalisation presented by rationality. Backstage hidden from public view, power and rationalisation dominate.’ This is especially potent with the implementation of project policies: when reality starts or the beginning of the hidden plague of project reality. And the only way that the power of rationality can be maintained is through governing stable power relations. And I must also add that rationalisation is necessary to survival. Although different degrees of rationalisation exist and which can be challenged, this seldom occurs as they are difficult to identity and penetrate. As in doing so may lead to confrontations and destabilisation – causing an institution to be incapable of functioning and surviving – of the decision-making process. However, I must add a further twist in this argument and that is ‘the greater the power, the less the rationality.’ As he who possess strength divests himself of mind.’ Nietzsche identified this in the German Reich, which he accurately predicted and as we know it as the fall of the Reich, which we see and have seen in political leaders and organisational executives.
And supposedly, it is ‘uncovering and governing’ the rationalisation of rationality (factors that influence organisational strategic decision-making to optimise project success) that is at the heart of my research project and future doctrines of project power, rationality and control. (Research Journal 28/08/2015)

I continue this with another journal entry.

It was an emotional and time consuming process: searching, reading, highlighting, note taking, critical thinking and analysis until I reached the point of saturation. I was mentally exhausted after every process. However, such motivation and dedication to the literature review process proved to be worthy with the following comment from my supervisor in an email: ‘Wow Duro! I’m plodding through your lit review very slowly. That is because it is the best I’ve seen as a supervisor or examiner. Not only do you seem to have covered all the bases comprehensively but also there are very good references cited that I did not have or know about that is useful to me…’. I was not expecting such a comment from my supervisor but it made me feel really proud of the hard work I have put into the literature review. (Research Journal 03/03/2016)

Such constructive supervisor feedback is essential to a student’s well-being and the supervisor-student relationship (de Kleijn et al. 2014). Such a relationship is also reciprocal where students should be seen as ‘active agents in the feedback process; that is, teachers can provide very constructive and possibly helpful feedback, but when students do not process it or act upon it, feedback is unlikely to lead to learning’ (de Kleijn et al. 2013, p. 1014). I perceived such constructive feedback as I was on the ‘right’ track with my PhD research project, and understood that it was not a one-way supervisor-student relationship as my research journal illustrates.

Thanks and greatly appreciate the support! One thing (from many) that I really like about the supervision that I am receiving is that you (as supervisors) really challenge me to push my boundaries. Although it may feel (un)comfortable, such a ‘supervision pedagogy’ is a highly rewarding space to be in. (Research Journal 04/08/2016)

Supposedly, I understand the value of constructive feedback in maintaining sound relations, as I am undertaking a research project which focuses on mechanisms to strengthen relations in a project and program environment. However, a lot of it comes to the values my parents ingrained into me as I was growing up. I also understand the significant value my supervisors are providing in the research relational-oriented supervision, particularly their time, knowledge, experience, and mentoring which is shaping me as a researcher and ‘scholar.’ Such quality supervisory commitment is invaluable to doctoral student outcomes (Halbert 2015).

Similarly aligned with the relational-oriented supervision is the relationship with participants, or the researched, on the research journey. Such a relationship can be seen as egalitarian, reciprocal and evolving.
where the researcher and researched engage in the co-construction of knowledge (Karnieli-Miller et al. 2009, Zajano and Edelsberg 1993). Although it can have a number of benefits and pitfalls, in particular, when doing research in familiar settings amongst peers (Hockey 1993), and change in the course of the different stages of the research process, in practice, there is ‘no correct or optimal relationship’ (Karnieli-Miller et al. 2009, p. 280). I saw the researcher-researched relation as a partnership approach which had a number of benefits and pitfalls as my research journal illustrates.

How am I supposed to involve participants in the research study? I am collecting data on a rather sensitive matter i.e., organisational strategic decision-making on Australia’s largest program in history. Will the potential participants, many of which are known to me as we have worked together, share the truth or will they bend the truth? I am going to have to work closely with my supervisors to gain a better understanding on the best way to approach potential candidates. (Research Journal 03/03/2014)

I continue this with another journal entry.

Subsequent university ethics approval, I send a letter to potential participants inviting them to participate in my research project. Supposedly, the aim is to persuade potential participants to participate in the research and share their experience and knowledge. In this initial participant recruitment stage, I am relying on their passion for the PM industry and our previous working relationship. Majority of the participants decide to participate, which is a huge relief. I am also excited with the prospect of developing a strong research partnership with these participants. These are the ones who met my pre-determined criteria i.e., PM passion and previous working relationship. The other potential participants, which would have provided a significant but different perspective, did not participate. I did not have a close working relationship with them. Upon reflection, these are the ones who potentially had the most to lose by participating – their reputations and future careers were most probably on the line. Although their identities would have been protected. Still, I am rather ‘lost’ why they did not want to participate. However, there are other research strategies that I can employ, for example, reading memoirs. (Research Journal 31/10/2013)

The process of developing and maintaining a strong researcher-researched relation continued throughout the research process. This includes during the data collection process i.e., interviews to capture the participants’ wealth of knowledge; and with the validation of the research findings i.e., participants to review and comment on their transcripts (member checking), and participate in the Delphi technique. However, such a partnership was constraining when it came to gaining access to Commonwealth information under the freedom of information (FOI) legislation. Although governments are moving to more openness, FOI legislation does not guarantee free and unlimited access to information (Shepherd 2015). Information may be made ‘deliberately inaccessible or inadvertently hard to find due to poor record-keeping’ (Shepherd 2015, p. 717). Other challenges associated with the process include reading and
comprehending legislation and regulations, unfamiliarity with an authority’s internal structures and processes, public authorities may charge a fee for dealing with requests, and exemptions may apply. Accessing FOI documents for this case study, in particular, cabinet-in-confidence information was not an easy process as my research journal illustrates.

After thoroughly reading the FOI legislation, I submitted a request to the relevant agency to gain access to specific documents associated with my case study. A good thing with a request is that the responsible agency must reply within a statutory timeframe. I receive a reply on the last day, basically stating that they do not have the requested documents but it is with another agency. So I send a request to the other agency, and they reply stating they do not have the requested documents as it is with the initial submitting agency. The first thought that comes into my head is: What poor record management! How can a government agency ‘lose’ such important documents? Decisions made that affected millions of Australians. So after a couple of more months, the initial agency finds the documents. However, they attach a huge fee to gain access to the documents, which I believe is absolutely unjustifiable and unaffordable in my case. I argue the importance of the documents against the significance of my research findings without resolution with the governing agency. I then submit my argument to my local federal member of parliament to argue on my behalf without much success. I then request to have the matter internally reviewed – do not really believe this to be a just and fair system but it is part of the formal process. After a couple of more months, the internal review supports its initial decision. Surprise, surprise! I then submit a request with the Australian Information Commissioner arguing my case to gain access to the documents. A major drawback with this process is that there is no statutory response timeframe. After almost one year later, the Australian Information Commissioner rules in my favour and the government agency release the requested documents. However, a significant proportion of the documents have been blacked-out with the government agency using a legislative exemption, which in my opinion is invalid and illegitimate. I submit an argument with the Australian Information Commissioner once again arguing the validity and legitimacy of the exemption. (Research Journal 12/07/2016)

Although such a process in the public sector can seem tedious and draining, I focused on establishing a strong relational partnership with the government agencies. At the end of the day, we were on the same team, kicking for the same goal. By doing this I accepted the paradox in public relations that managing relating makes more sense than managing relationships (Stoker 2014). Such a paradoxical view has been consistent throughout my PhD research journey. While the emerging as a researcher has been challenging throughout my research journey, I am entering perhaps an even more challenging phase which academia refers to as ‘publish or perish’ (McGrail et al. 2006, Wilkinson 2015). From the beginning of my research journey, my supervisors ingrained into me that publishing is an essential part of my candidature, in particular from the perspective when examiners assess my thesis with published work. Such a philosophical mindset is also echoed by Sharmini et al. (2015). The authors state that such a process can assist candidates to ‘foster certain attributes and skills that are essential in academia such as responding to constructive
feedback, communicating effectively, perseverance, confidence and a sense of independence’ (2015, p. 97) which can enrich the doctoral experience (Robins and Kanowski 2008). Although I agree with my supervisors and the literature on ‘publish or perish,’ I question the process of where to publish and the strategies of getting my thesis published in a high-ranking journal, particularly and subsequent the course of ‘writing for publication’ that I enrolled into at the university as my research journal illustrates.

What do they mean by lower impact journal when publishing? Do I really want to publish my work in a lower impact journal? What do they mean by journal politics? Does this mean the quality of your research output? Criticism from journal examiners? So it appears I have to implement a strategy for journal publication, which has connections with the theory on strategic networking or alliancing. After finishing the course, I realise that there appears to be a lot of covert and overt strategic work when it comes to publishing. Where to publish? Who to publish with? It appeared I saw such strategic work at my last conference: well renowned academics quietly discussing their next ‘big’ research paper. However, the bigger question is: Why publish in journal articles? Is this the way of the future or is there another publication path that is more beneficial or valuable? Is this the best way to diffuse my research findings? How are candidates institutionalised within this scholarly community? Why do we write researcher-journal-reader instead of researcher-reader? I am beginning to see a lot of research written from the researcher-reader perspective on social media. Cutting-out the journal ‘middle-man.’ However, upon deep reflection on the whole publication process, I decide to take my supervisors guidance and publish for conferences and in journals. I also believe this will provide a higher quality thesis, and enrich my doctoral experience in becoming a better researcher. (Research Journal 01/09/2015)

As my research journal states, I had to think deeply about implementing a strategy for journal publication. So I begin to read papers on strategies for getting published in peer-reviewed journals. One paper that particularly caught my attention is ‘winning at the publication game’ by McDaniel and Childers (2011). In their article, the authors focus on the publication game and offer some ‘athletic advice’ to improve the chances of publication (2011, p. 171) which rather resonates with me:

- **To catch a fish, set the hook.** Start with a short, strong and interesting title to catch the attention of the readers.
- **Start fast, finish strong.** Focused introduction to set the direction of the article.
- **Drive for show, putt for dough.** Focus on the details (the ‘putts’) that provide specificity to the thesis.
- **One of a kind beats a royal flush.** Focus on a novel or unique manuscript.
- **Play the odds.** Know the odds that your submission will be accepted.
- **Go for style points.** Abided by established conventions of writing styles, and preview previous issues of the journal to see what seems to work.
Chapter Eight: Research Reflections (Intellectual Rigour)

- **Practice makes perfect.** Review manuscripts for any errors to make sure it is ready for publication.
- **There is no ‘I’ in ‘team.’** Writing is a team sport and involve co-authors and colleagues on your manuscript. Think of winning as collaboration.
- **Never up, never in.** Make bold and accurate decisions in the publication game.
- **Listen to the coach.** Pay close attention to the reviewers of your manuscript and learn from the process.

Another important quality, besides originality, rigour and significance is: coherence (Badley 2009). According to the author, it is imperative to achieve a sense of ‘togetherness,’ including:

- Displays coherence of structure when conclusions clearly follow from the data.
- Skilfully organises a number of different angles.
- Is cogently organised and expressed.
- Possesses a definite agenda and an explicit structure.
- Presents a sense of the researcher’s learning as a journey, as a structured incremental progress through a process of both argument and discovery (Badley 2009, p. 339).

Although I am at the beginning of the ‘publication game’ i.e., learning the ‘tricks of the trade,’ I apply McDaniel and Childers (2011) and Badley (2009) ‘publishable athletic advice’ as my research journal illustrates.

I am working on (or co-authoring) a conference paper and journal manuscript for publication. Supposedly, a significant advantage is that my primary supervisor is an editor of a PM journal. He would have a significant dyad understanding of ‘playing the publication game.’ Additionally, most of the academics on the editorial team, I have either referenced in my thesis or have a deep understanding of their area of expertise and latest publications. I understand the publication game is rather ‘tricky’ and strategically based i.e., write with a winning team. However, I want to know more about what happens behind the scenes. This is where I am relying on the experience of my supervisors. They can show me some of the ‘tricks of the trade’ which I am unable to learn from published papers.

I begin writing my abstract for a high impact journal which topic significantly aligns with my thesis. I do not want to mess this up! I write about five drafts of an extended abstract, until I submit a polished abstract as requested by the journal. I think critically in particular capturing the readers’ attention and reading pervious publications based on McDaniel and Childers (2011) paper on ‘winning at the publication game,’ and Badley (2009) suggestion on publishable coherence. Although I am excited about the opportunity to submit, which my supervisors fully support, the chances look rather slim i.e., first journal submission on a special edition on megaprojects. But the one thing that motivates me is knowing there is a great team behind this submission. (Research Journal 28/01/2016).
After about a few days, the editor replies with an email accepting our abstract and requesting a full manuscript for publication: We did it team! Well done! Through the process of emerging as a researcher, I have submitted two conference papers and one manuscript for a journal: all accepted for publication. In my opinion, gaining the winning edge for journal publication is not written on a paper but instead placing trust in my ability and trust in my supervisors. Such a view of trust is essential in the research relation-oriented supervision approach to the supervision of doctoral students (Franke and Arvidsson 2011).

Now that I am close to submitting my thesis, where from here? How will my knowledge and skills be perceived in the Australian and global project management community? Do I go into academia or the private sector? After all, I am emerging as a researcher and about to be seen as a fellow ‘scholar.’ I remember the first face-to-face meeting I had with my primary supervisor, and he asked: Why do you want to undertake a PhD? This is a very important question which still resonates with me today and goes back to the initial part of this reflective journal, and I replied: I want to advance my career in research and advisory towards a leading global academic. He gave me his full backing and we were off. The research plane had taken-off and now we are about to land! As I begin to see the tarmac approaching in rather misty and foggy conditions, deeper questions are surfacing: Am I entering a world where my knowledge and skills will be appreciated? Have I distanced myself too far from the ‘real’ world? This requires further exploration.

PhD researchers are entering a knowledge economy (Jackson and Michelson 2015, Neumann and Tan 2011). According to Jackson and Michelson (2015) doctoral-qualified graduates and the quality of doctoral education are ‘key drivers in knowledge creation, innovation and national competitiveness.’ Although less than half of doctoral graduates move into academia (Neumann and Tan 2011), many are regularly utilising their research knowledge and skills in a range of careers following graduation (Barnacle and Dall’Alba 2011). Additionally, many doctoral graduates attain full-time employment subsequent graduation (Jackson and Michelson 2015). Considering a significant proportion of doctoral candidates take up non-academic employment, particularly in developed economies (Neumann and Tan 2011), which rely on a highly skilled workforce for innovation and national competitiveness, another question surfaces: What factors influence the initial full-time employment of PhD graduates? Although there is no perfect answer, Jackson and Michelson (2015) study reveals the following factors that account for post-PhD employment outcomes: previous work experience; attendance at a research-intensive university; and access to a research culture and networking opportunities. My research journal illustrates such a transition, or ‘tarmac approach,’ into the post-PhD space.

During the last year of my PhD candidature, I begin to apply for positions in academia and non-academia. I really want to enter the ‘research, scholarly and advisory space’ and know my knowledge and experience
will provide significant value to the Australian and global PM community. I believe that academia would be an excellent place to advance my career. I apply for a number of university lecturer positions in PM but I am ‘unsuccessful.’ I respectfully request for valuable feedback on my applications and the main themes are: ‘PhD completion’ and ‘academic teaching experience,’ which is fair and reasonable, and I am working on gaining these qualifications – keep at it, you will get there! It does not leave a rather sour taste in my mouth. I even respectfully request the assistance of my supervisors, which they were happy to abide-by. I then apply for a number of senior contract PM positions within the government sector on the implementation of major projects, as I need to survive financially and it can aid as a rather ‘buffer’ and advance my networking power until a suitable academic position arrives; however, and as with the academic positions, I am ‘unsuccessful.’ I also request for valuable feedback and the overwhelming responses are: ‘you are too qualified,’ ‘people fear your qualifications,’ and ‘employers will feel threatened by your presence.’ I am rather surprised by such comments. However, I discover that my situation is not uncommon with post-PhDs (Boulos 2016). Moving on a more positive note, through my networking and selling my skills, experience and knowledge that I gained during my PhD candidature, I met senior government and non-government officials working on mega infrastructure and defence sector projects. It is clearly evident that these people saw the benefits my skills, experience and knowledge could bring their agencies – we were in the early stages of creating a partnership. Consequently, it makes sense to me to continue this career path – advance myself as a global leading researcher, scholar and advisor in my field of expertise (Research Journal 12/08/2016)

Supposedly, I was entering or entered the knowledge economy, networking to improve the interface between industry and research to solve problems and advance organisational goals (Bastalich 2010). Such a phenomenon can be seen as ‘networking in the knowledge economy,’ the promotion of economic growth and social well-being through university research (Kearney and Lincoln 2013, p. 313). The research relational-oriented supervision adopted for my research journey, my networking, skills, experience and knowledge, in particular the contribution of ‘new’ knowledge in my thesis, is preparing me to succeed within the PM industry and profession. I can confidently say that I am about to emerge as a researcher.

8.3 Summary

According to the Australian Qualifications Framework (2013), part of the expected PhD outcome is for the successful candidate to be a critical thinker. In light of this, and to better inform the reader, I included in this thesis this chapter. The purpose of this chapter has been to demonstrate critical thinking insights through my reflections to supplement my critical examination and use of literature in other chapters. It therefore forms a core and important part of the thesis – intellectual rigour – as it gave me the opportunity to explain to examiners and other readers how my own personal experience in my past role in the domain
under study and how that shaped, together with my study and critical consideration of the relevance and import of the literature, my perspective.

This chapter discussed perhaps the most sensitive and exposed part of the research process: me emerging as a researcher. Evidence was provided through a reflective journal. Firstly, I discussed the motivations for undertaking a PhD and the reflective approach adopted for this research: intellectual rigour. Then I discussed me emerging as a researcher through main themes that emerged during my research journey which were grounded by my research reflections. My research journey revealed eight themes that were essential in emerging as a researcher. This included my perspective of the research journey, the relationship with my supervisors, the literature review, critical thinking, relationships with participants, gaining access to freedom of information documents, journal publication, and post-PhD. This significantly enhanced methodological rigour i.e., internal validity, and the research process i.e., changes were made to the literature review and data collection, which is at the ‘heart’ of qualitative research, that is, exploration.
9.1 Introduction

Chapter Nine Prologue

What the previous chapter did:
Provided evidence and reflections of the research process including reinterpreting ideas and concepts, linking theory to practice, and documenting my development as a researcher.

What this chapter does:
Provides the findings, insights and recommendations for practice and future research.

The prince must be ready to imitate the behaviour of the fox, who can ‘recognise traps,’ and the lion, who can ‘frighten wolves.’ To obtain and maintain power, he needs a calculating attitude without any sense of guilt or shame. The prince should rely more on being feared than on being loved. If cruelty is required, it should be done all at once, not over an extended period. Although the prince does not need to have a moral character, he must seem to have one; he should appear to be merciful, faithful, humane, sincere, and religious, and avoid being despised. He has to uphold his dignity ‘which must never be allowed to fail in anything whatever.’ He should not pay attention to advice unless he has asked for it. (Bass and Bass 2008, p. 135, quoting Machiavelli)

In this research, I applied the leading themes from the literature on project strategy and the front-end, decision-making theory, ethics, external and internal environmental factors that influence organisational strategic decision-making, governance and policy implementation to analyse the empirical case of organisational strategic decision-making on the Building the Education Revolution (BER) program. In doing so, I aimed to advance current understanding to what extent and how do external and internal environmental factors influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. The findings highlight that strategically shaping institutional project reality aligned at the front-end with the temporary uniqueness of the organisational change initiative is essential for the successful implementation of project policies i.e., achieving project strategies and benefits. Based on the findings, I formulate three theoretical contributions and three implications for practice including paradoxes. In addition, I suggest possible avenues for future research.
9.2 Research Conclusions

The ideas leading to this research are partly built from my background as a steering committee member on an Australian state government mega infrastructure project taskforce fulfilling objectives of an overarching crisis program. Although the megaproject failed to achieve most of its strategies and benefits, which led me to question the reasoning behind mega infrastructure project policy ‘failure,’ it also led to the development and articulation of the following research aim:

Investigate factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects including the exploration of coping mechanisms to optimise its success. Particularly with a focus on a muddled and strategic context i.e., complex, dynamic, intricate, plural and emergent properties of organisational strategic decision-making, intertwined in often unforeseen ways between different agency and actor (inter)actions.

The aforesaid research aim has been achieved and the respective findings make three specific contributions to the research on factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. The first contribution is that collective institutional leadership, an emergent phenomenon, aligned at the front-end with the temporary uniqueness of the organisational change initiative, is critical in achieving a relatively stable state of (inter)actions for project policy success: the means-end relationship. Such a phenomenon in the relational actor space is seen as front-end institutional project work (sensemaking) which includes: (1) creating institutional project relations, (2) maintaining institutional project relations, and (3) disrupting institutional project relations, aligned with the temporary uniqueness of the organisational change initiative, through the purposive action-meaning cycles of sensemaking between organisational actors to achieve an unique temporary organising institutionalised project reality in rationalising decisions. This phenomenon is novel in the literature, being factors that influence organisational strategic decision-making on the implementation of mega public sector infrastructure program of projects. Moreover, despite the contextual embeddedness of the actions in the relational actor space, they highlight the significant value of the normative and cognitive frames in achieving a collective identity or an unique temporary organising institutionalised project reality in rationalising decisions – that is, a hybrid project network temporarily changing their ‘permanent’ structures aligned with the temporary uniqueness of the organisational change initiative. Although such a phenomenon is an effortful and time consuming process, particularly at the front-end of project policy implementation, once legitimised, it is a strong pillar to prevent illegitimate behaviour, enabling project institutions and hybrid project networks to co-ordinate complex, flexible behaviour and respond to changes (including innovative practices) in the project environment. Thus, I argue that achieving a strong sense of collective institutional leadership is essential for the successful implementation of project policies.
This takes us to the second contribution showing the important characteristics of informal and formal mechanisms of institutional project work that influences the relational actor space to achieve (or fail to achieve) an unique temporary organising institutionalised project reality in rationalising decisions. I identified four distinct influential mechanisms based on the concepts of power and governance in the relational actor space: (1) distant associational institutionalisation, (2) situated associational institutionalisation, (3) distant instrumental institutionalisation, and (4) situated instrumental institutionalisation that are essential in rationalising project policy decisions. The constructs acted as either constraining or enabling mechanisms in the relational actor space to achieve (or fail to achieve) an unique temporary organising institutionalised project reality. When the relational actor space is associated with more distant-based institutional project governance mechanisms, it leads to constraining influences in the relational actor space with outcomes such as high transaction costs, low stability, weak identification and disidentification, weak sense of morality, low project performances, and exacerbates Machiavellianism. This is seen as failure in temporary organising as a process and form i.e., inability to truly transform the relational actor space towards an unique temporary organising institutionalised project reality. This also appears to initiate a ‘plague’ of project malgovernance. However, when the relational actor space is associated more towards situated-based institutional project governance mechanisms, it leads to enabling influences in the relational actor space with outcomes such as low transaction costs, high stability, strong identification, strong sense of morality, high project performances, and tames Machiavellianism.

The third contribution of the research summarises the significance of creating a legitimate and an unique temporary organising institutionalised project reality prior to the commitment of significant resources in rationalising project policy decisions. It is imperative to achieve this at the front-end of project policy implementation to identify the best courses of action and optimise choices – thus minimising cognitive biases – in the decision-making process with a focus on motivations and justifications which structure practical reasoning. Being in such an institutionalised state of social reality, individuals and institutions can interact as rational agents and prevent project fallacies. The strength of rationalising project policy decisions is principally determined by the mechanisms of institutional project work. A relational actor space that is primarily associated with situated-based institutional project governance mechanisms and deontological reasonings is considered to achieve a relatively strong temporary institutional project environment and high project performance i.e., fast pace of temporary organising and high stability in the relational actor space. In addition, being in such a strong relational actor space, decisions are made earlier and options explored on the viability of a project policy to achieve strategies and benefits. On the other hand, a relational actor space that is primarily associated with distant-based institutional project governance mechanisms and consequentialist reasonings is considered to significantly increase the risk of cognitive biases in rationalising project policy decisions. In addition, organisational actors being in such a relatively weak temporary institutional project environment enter a state of low project performance i.e.,
deinstitutionalisation of temporary organising and low stability in the relational actor space. Such a state of project fallacy is seen about one-sixth of the way into a project policy i.e., after sponsor authorisation. This adds significantly to the literature on the importance of ‘vision,’ for example the work by Christenson as reported in Christenson and Walker (2008), by explaining why and how a clear vision may act as an enabler for project delivery success.

The contributions highlight the absolute imperative of achieving a temporary organising institutionalised project reality, aligned at the front-end with the temporary uniqueness of the organisational change initiative, predominately associated with situated-based institutional project governance mechanisms. In doing so, organisational actors can significantly minimise cognitive biases in rationalising decisions – rational agent – in a high performing temporary project environment towards the successful achievement of project policy strategies and benefits.

9.3 Insights and Recommendations for Practice and Further Research

According to Morris (2010, p. 140), ‘when we go to the doctor we are more interested in being cured than knowing whether the doctor followed current best practices and procedures (though these are important).’ Such a metaphor is highly applicable to traditional project management schools of thought: an instrumental technocratic process (Walker and Lloyd-Walker 2016), particularly for the implementation of project policies. Politicians tend to adopt an utilitarian outcome view – consequentialism – where the means justifies the end taken from a Machiavellian perspective for the implementation of mega infrastructure program policies. Rightfully so, as such ‘high impacting’ policies can provide significant direct social and economic benefits (Dimitriou et al. 2015), and generate other ‘spillover’ effects, such as creating employment opportunities, and revitalising industries and precincts (Copeland et al. 2011, Van Der Westhuizen 2007). The positive impact of these spillover effects on the electability and career trajectory tends to be seen as irresistible to politicians and their advisors as any positive goodwill resulting from a program can enhance and legitimise their image (Steinberg 1987, Van Der Westhuizen 2007). In this sense, mega infrastructure projects can be seen as political symbols: symbolising political legacy (Flyvbjerg 2014). For example, the pyramids with the Egyptians (Morris 1994). However, there is a dark side to sponsoring such programs. Political elites, politicians and their advisory and public relations groups, use language and symbols as instruments to manipulate social realities, especially through the implementation of policies to maintain their stature and relevance (Flyvbjerg 2014, Flyvbjerg and Molloy 2011). However, this research shows that the ‘dark side’ to sponsoring such programs can be significantly ‘enlightened’ by changing the project management paradigm to an institutional emergent process. Consequently, this research presents eight paradoxes, which have implications for the theory of project management and practice, as illustrated in table 9-1. Simply stated, the term paradox is a ‘thought construction, which leads
Chapter Nine: Conclusions and Recommendations

to an unexpected contradiction’ (Łukowski 2011, p. 1). Such a view is highly relevant as ‘contradiction and paradox are the ‘new normal’ in this volatile, rapidly changing landscape of organisations’ (Putnam et al. 2016, p. 66), particularly, in the field of temporary organising (Bakker et al. 2016). Much of this thesis dealt with the paradox of the means-end paradox of project success and the paradox of who may be considered the rightful beneficiary of a successful project outcome.

Table 9-1: Means-End Project Paradoxes

<table>
<thead>
<tr>
<th>Paradox</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The project management paradox:</strong> Project management, seen as an instrumental technocratic process, is in fact an institutional emergent process which leads to the successful implementation of mega public sector infrastructure program of projects.</td>
<td>Project institutions identified primarily with bureaucratic, regulative and cognitive power relations and consequentialist reasonings is considered to lead to the unsuccessful implementation of project policies. However, as the findings show, institutions identified primarily with collective, normative and cognitive power relations and deontological reasonings leads to the successful implementation of project policies.</td>
</tr>
<tr>
<td><strong>The project partnership paradox:</strong> Project partnerships, seen primarily based on contractual relationships, are in fact primarily based on institutional relations.</td>
<td>Project partnerships are primarily based on contractual relationships – oriented towards outcomes (Cruz and Marques 2013, Van Marrewijk et al. 2008). However, as the findings show, in reality they are primarily based on institutional relations – oriented towards the emergent phenomenon – through the process of front-end institutional project work (sensemaking). For example, rather than Public-Private Partnerships, which abstracts project relationships, a more accurate representation, which abstracts project relations is: Institutional Partnership Projects.</td>
</tr>
<tr>
<td><strong>The project front-end paradox:</strong> The front-end phase of megaprojects, which is considered to take years to conceptualise, can in fact take a few months to conceptualise.</td>
<td>The front-end phase of megaprojects is based on the presumption that it typically takes 3-5 years (Samset and Volden 2016) and even on average 6-7 years (Miller and Lessard 2000) to conceptualise. However, as the findings show in reality the front-end phase of megaprojects can take a few months to conceptualise.</td>
</tr>
<tr>
<td>Paradox</td>
<td>Description</td>
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<td>---------------------------------------------</td>
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<tr>
<td><strong>The project performance paradox</strong>: Megaproject performance, embodied with low stability and slow pace, is in fact embodied with high stability and fast pace which leads to high megaproject performances.</td>
<td>Megaproject performance is primarily based on the presumption that it is embodied with an environment of low stability i.e., structural complexity, and slow pace (delays in initiation and delivery), which leads to underperforming projects (Patanakul et al. 2016). However, as the findings show in reality megaprojects are embodied with an environment of high stability and fast pace which leads to phenomenal delivery on strategies and benefits.</td>
</tr>
<tr>
<td><strong>The project governance paradox</strong>: Project governance, which is associated with the 'steering' of individual and organisational actors, is in fact associated with the 'shaping' of individual and organisational actors.</td>
<td>Project governance is primarily associated with the ‘steering’ of individual and organisational actors (Bekker 2015). However, as the findings show in reality project governance is associated with the ‘shaping’ of individual and organisational actors.</td>
</tr>
<tr>
<td><strong>The project uniqueness paradox</strong>: The temporary uniqueness of the task attribute in project organising, which is primarily associated with the ‘permanent’ organisation, is in fact primarily associated with the temporary organisation.</td>
<td>The temporary uniqueness of the task attribute in project organising is primarily associated with the ‘permanent’ organisation’s repetitive or routine technical components i.e., repeatable and predictable patterns of project action-based activities (Engwall 2003). However, as the findings show in reality the temporary uniqueness of the task attribute in project organising, in particular on megaprojects, is primarily associated with the temporary organisation’s unique technical components i.e., unrepeatable and unpredictable patterns of project action-based activities.</td>
</tr>
<tr>
<td><strong>The rational decision-making project paradox</strong>: Project decision-making, which is considered either rational or irrational, is in fact illusionary and the degree of illusion or rationality ultimately determines the success in achieving project strategies and benefits.</td>
<td>Individuals and organisational actors are considered to make either rational or irrational project decisions (Flyvbjerg 2008b). However, as the findings show, in reality individual and organisational actors are under the illusion they are making either rational or irrational project decisions. And it is the degree of</td>
</tr>
</tbody>
</table>
Paradox Description

**The project success paradox:** Project success, which is primarily considered outcome oriented, in fact primarily process oriented which leads to the successful implementation of mega public sector infrastructure program of projects.

Project success is primarily considered outcome oriented i.e., benefit realisation and consequentialism, where politicians and their advisors lead projects, which leads to underperforming projects. However, as the findings show in reality project success is primarily process oriented i.e., just, open and transparent processes (deontological ethics), where people lead projects, which leads to high performing projects. And thus, a rational agent implementing projects.

All in all, the paradoxes suggest that the implementation of mega infrastructure program of projects are trapped in the ‘iron cage’ of project management. From Max Weber’s (1958) classic analysis of the rationalisation of modern society in *The Protestant Ethic and the Spirit of Capitalism:* ‘In modern society, we are trapped in a cycle in which accumulation and efficiency serve not as means but as self-justifying ends. We thus find ourselves in an iron cage of ever-increasing technical rationality and bureaucratisation’ (Britton 2003, p. 236). However, this need not be the case. According to Klagge (1997, p. 70) the iron cage can also be reconstructed as a ‘playground’ structure where:

The bureaucratic structure is a neutral backdrop requiring the action of human beings before outcomes can emerge. If those actions are unethical, stifling, lazy, or inhumane, negative outcomes will result. If, on the other hand, those human actions are ethical, creative, energetic, and humane, positive outcomes will result. Activity will be productive and enjoyable, more like creative play than laborious toil. […] In sum, the iron cage of bureaucracy, being a neutral structure, calls for the creative, ethical, energetic play of adults that most of us know by the name of ‘work.’

This reinforces the strategic importance of achieving an unique temporary organising institutionalised project reality, aligned at the front-end with the organisational change initiative, to successfully achieve project strategies and benefits. Managers need to work more towards the ‘management of projects’ ethos: managing the front-end of projects (Edkins *et al.* 2013), rather than the ‘project management’ ethos which tends to focus on project execution. In execution, the ethos is ‘typically about completion on time and budget to a given set of specifications and scope’ instead of the front-end where the ethos is on strategic project shaping (Edkins *et al.* 2013, p. 82). This critical phase is the most prone to experiencing the adverse
effects of the ‘iron law’ and the ‘iron cage’ through a Machiavellianism lens – constituting an iron cage of megaproject law – which not only causes tremendous cost and time overruns, but demoralises project environments, and brings us closer to a plague-like demise. Once in motion, it is practically impossible to terminate without prohibitive expenses and formidable political exit barriers i.e., foreseeable death to politicians. However, paradoxically it is also the phase that can significantly enhance project value. From a practical point of view, managers should focus on strategically shaping the relational actor space with the aim to achieve an unique temporary organising institutionalised project reality, aligned at the front-end with the organisational change initiative, in rationalising decisions. Three empirical management actions were identified to achieve such a state of project reality.

The first management action is achieving a strong sense of collective institutional leadership in the relational actor space. This is of fundamental importance at the front-end of project policy implementation, or temporary organising, prior to the significant commitment of resources, or project sponsor approval. Here a manager needs to be a ‘statesman,’ an agent of institutional project work, acting strategically and shaping institutional project reality – the emergent terrain – through critical and character-defining decisions. Such decisions include embedding strategic intent or recommending to a project sponsor to abort a project or explore other viable options. This role should be assigned to an institution or institutional leader i.e., institutional entrepreneur, able to capture the emergent actions of individuals and organisational actors in creating, maintaining and disrupting institutional project relations aligned with the temporary uniqueness of the organisational change initiative. This type of work, although effortful and time consuming, is the most valuable in constituting the emergence of collective institutional leadership in the relational actor space. Managers should also be constantly aware of legitimate and illegitimate disruptions which can be destructive and significantly constrain relations and detract from the emergence of an unique temporary organising institutionalised project reality; or it can be constructive and significantly enable relations and enact the emergence of an unique temporary organising institutionalised project reality.

The second management action further underlines the importance of institutional project work at the front-end of project policies to achieve an unique temporary organising institutionalised project reality in rationalising decisions. The results suggest that managers need to work more towards situated-based institutional project governance mechanisms in the relational actor space to achieve an unique temporary organising institutionalised project reality. Such relational characteristics include transverse power (exercising power with others), high relational cues, representational spaces as ‘lived,’ low relational risks, high relational trust, strong sense of morality, and face-to-face discourse. Being in such a situated space, organisational actors can achieve congruence, fast pace of institutionalisation and high stability in the relational actor space – a high performing temporary ‘action team’ – which significantly influences the strength of relations in rationalising project policy decisions.
The third management action emphasises the importance of minimising cognitive biases in the decision-making process to achieve a state as a rational agent. Managers need to focus on the motivations and justifications which structure practical reasoning, including the diffusion of information and knowledge in the relational actor space, towards joint intentions. Being in such a rational state, agents are able to make reasoned decisions and commit to the best courses of action to achieve project strategies and benefits. Being in such an unique temporary organising institutionalised project reality or environment, also generates rich networks of constructive feedback loops where actors’ meanings materialise through sensemaking that inform and constrain identity and (inter)actions. It provides ‘clear questions and clear answers’ (Weick 1993) and enables organisational actors to comprehend the project world and act collectively in rationalising decisions. It is of upmost importance for the project manager to create the right team i.e., high performing temporary ‘action team,’ with the right expertise that ‘gel’ together to deliver project policies. Without achieving such a state of utopian value, a project sponsor or manager should seriously consider proceeding with project policies.

Taken together, as is professed by leading scholars (Dalcher 2016, Morris 2013, Turner et al. 2010, Turner et al. 2012, Walker and Lloyd-Walker 2016), projects are about people. People are the main drivers of project success or failures. The data shows that this is particularly prominent at the front-end of project policies i.e., the formation of a high performing temporary action-based project team. Today’s project managers should take seriously the human element in the management of projects. Although such competencies go beyond ‘traditional’ project management practices, learning the right actions to strategically shape institutional project reality can provide significant tangible and intangible value to the project sponsor and manager.

This study also revealed areas of limitations and areas for further research including the implementation of megaprojects in other industry sectors such as the pharmaceutical or the financial sector, and developing countries such as Africa and Latin America. Areas for further research also include the exploration of other unknown cognitive biases, examining the interplay of virtual institutions, technological advances or disruptions, other forms of temporary organising, and geopolitics, and how they may influence serving the real needs of society including meeting the expected surge in the demand for food, water, and energy. The larger the world gets the more (or less) demand on resources, and thus the more fractious it gets. Infrastructure is a key driver of such growth, demanding more rational and transformational approaches to megaprojects.

Although some researchers are heading down a similar path as this research, for example behavioural decision-making in projects (Stingl and Geraldi 2017), temporary organising processes and forms (Bakker
et al. 2016), swift starting action teams (Wildman et al. 2012), and factional interests on megaprojects (Van Marrewijk et al. 2016), this research shows solutions to such challenges and recommendations for further research.

9.4 Overall Thesis Conclusions

City-builders should “mix and blend the various ways of life in the city” to produce “a human image [to andreikelon] based on what Homer too called ‘the divine form and image’ [theoeides te kai theoeokelon] when it occurred among human beings.” (Benner 2009, p. 493, quoting Socrates)

This research began with the aim to understand ways to optimise the successful implementation of mega public sector infrastructure program of projects. And such a way to achieve this objective is by strategically shaping institutional project reality aligned at the front-end with the temporary uniqueness of the organisational change initiative. Like city-builders, or painters who’s ‘aim is to sketch a divine model… they would take the city and the characters of human beings … and, as they work, they would look often in each direction, towards that which by nature is just, fine, moderate, and the like, on the one hand, and towards that which they are trying to put into human beings, on the other … until they produced the divine form and image’ (Fraenkel 2012, p. 62). Such a process takes ‘work,’ physical and mental work, understanding and interpreting the project policy ‘terrain’ towards achieving strategies and benefits.

Leading scholars tend to use the metaphor that organisational strategic decision-making is like being a chess master – a master decision-maker seeing emergent tensions (Nutt 2010b). However, this research has shown a more accurate representation would be a painter ‘mixing and blending various colours towards the divine form and image.’ Like the Creation of Adam by Michelangelo or the Mona Lisa by Leonardo da Vinci, they too stand as one of the greatest human achievements, similarly, as do the ancient Egyptian monuments and the Colosseum of the Roman Empire, but without the harsh means to justify the end.

9.5 Summary

This chapter provided the findings, insights and recommendations for practice and future research. Firstly, the achievement of the research objectives, including three contributions to project management research. Secondly, insights and recommendations for practice, including eight paradoxes and three management actions. And overall, it suggested that the implementation of mega public sector infrastructure program of projects is more like a city-builder or painter producing a divine form and image.
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APPENDIX A

Participant Consent Paper (Interview)
INVITATION TO PARTICIPATE IN A RESEARCH PROJECT

Project Title: Improving the link between project management and strategy to optimise project success

Investigators: Duro Kolar (Research Student, RMIT University)
Professor Derek H. T. Walker (Project Supervisor, RMIT University)

Dear ...

You are invited to participate in a research project being conducted by RMIT University. Please read this sheet carefully and be confident that you understand its contents before deciding whether to participate.

If you have any questions about the project, please ask one of the investigators.

Who is involved in this research project? Why is it being conducted?

The research project is being conducted by Duro Kolar as partial fulfilment of the Master of Applied Science (Built Environment) under the supervision of Professor Derek Walker. This research has been approved by the RMIT Human Research Ethics Committee.

Why have you been approached?

You have been identified as a senior manager/officer who has been involved in strategic decision-making of a project or a subsidiary project under the Building the Education Revolution (BER) program. Your details have been obtained from contacts known to the RMIT research team.

What is the project about? What are the questions being addressed?

The purpose of this study is to understand and describe external and internal factors that influence organisational strategic decision-making in project environments. The primary research questions are:

To what extent and how do the external factors of economy, social, political, and expert knowledge influence organisational strategic decision-making? To what extent and how do the internal factors of power and politics, information and knowledge, culture, and governance influence organisational strategic decision-making? About 20-30 people are expected to participate in the study.

If I agree to participate, what will I be required to do?

Participating in the study is completely voluntary. If you agree to participate we will require 60-90 minutes of your time to conduct a face-to-face or telephone interview, and a subsequent 1 to 2 hour focus group interview about your completed project or subsidiary project under the BER program. Duro Kolar will contact you on your preferred telephone number at a mutually agreed time. We would ideally seek an understanding of a project that your organisation may have completed and that you have intimate knowledge about as a senior manager/officer completed within the last two years.
What are the possible risks or disadvantages?

There is no perceived risk associated with participating in this study. The study does not seek any identifiable information from the participants. If you are unduly concerned about your responses to the questionnaire and find participating in the project distressing, you should contact Derek Walker as soon as convenient. Derek Walker will discuss your concerns with you confidentially and suggest appropriate follow-up, if necessary.

What are the benefits associated with participation?

As a senior management officer, you are making vital organisational strategic decisions that influence successful infrastructure project outcomes. While much attention has been paid to strategic decision-making as a whole, factors that influence organisational strategic decision-making in project environments has attracted much less attention, if any.

This study will, for the first time, provide data for the project management profession and for academia an insight into the factors that influence organisational strategic decision-making in project environments. Individuals participating in this study will, upon request, have subsequent access to published reports stemming from the research via industry magazine sources and indirectly through academic sources. The research outcomes will also benefit the community at large and the project management profession.

What will happen to the information I provide?

All the information you provide will be treated confidentially. Only the investigators will have access to the information. You will not be personally identified in any publication arising from the study. The information that you provide will only be accessible to authorised individuals within the School of Property Construction and Project Management at RMIT University. All electronic information will be stored on a secure server and will only be accessible to the researchers involved with this study. Any information that you provide can be disclosed only if (1) it is to protect you or others from harm, (2) if specifically required or allowed by law, or (3) you provide the researchers with written permission. Results may be published in journals and/or more widely or thesis in the RMIT Repository, which is a publicly accessible online library of research papers. Data may be used in aggregate form and the researchers plan to use pseudonyms or any other de-identifying techniques. The research data will be kept securely at RMIT University for 5 years after publication, before being destroyed.

What are my rights as a participant?

Participation in the study is voluntary and you have no obligation to be involved. You have the right to withdraw your participation at any time and request that any recording cease. You have the right to have any unprocessed data withdrawn and destroyed, provided it can be reliably identified. You have the right to have any questions answered at any time.

Whom should I contact if I have any questions?

If you have any questions about any aspect of this study please contact Derek Walker.

Yours sincerely

[Date]                  [Date]
Duro Kolari            Derek Walker
Research Student      Professor of Project Management
RMIT University       RMIT University
If you have any concerns about your participation in this project, which you do not wish to discuss with the researchers, then you can contact the Ethics Officer, Research Integrity, Governance and Systems, RMIT University, GPO Box 247E, VIC 3001. Tel: (03) 9925 2251 or email human.ethics@rmit.edu.au
(Project number: CHEAN B 000018522-03/14)
CONSENT FORM

1. I have had the project explained to me, and I have read the information sheet.

2. I agree to participate in the research project as described.

3. I agree:
   a. to be interviewed
   b. that my voice will be audio recorded

4. I acknowledge that:
   a. I understand that my participation is voluntary and that I am free to withdraw from the project at any time and to withdraw any unprocessed data previously supplied (unless follow-up is needed for safety).
   b. The project is for the purpose of research. It may not be of direct benefit to me.
   c. The privacy of the personal information I provide will be safeguarded and only disclosed where I have consented to the disclosure or as required by law.
   d. The security of the research data will be protected during and after completion of the study. The data collected during the study may be published, and a report of the project outcomes will be provided to the RMIT repository, which is a publicly accessible online library of research papers. Any information which will identify me will not be used.

Participant’s Consent

Participant: ___________________________ Date: ________________

(Signature)
APPENDIX B

Participant Consent Paper (Delphi)
INVITATION TO PARTICIPATE IN A RESEARCH PROJECT

PROJECT INFORMATION SHEET

Project Title: Improving the link between project management and strategy to optimise project success

Investigators: Duro Kolar (PhD Candidate, RMIT University)
Professor Derek H. T. Walker (Project Supervisor, RMIT University)

Dear...

Further to earlier contact, you are invited to participate in the second and final phase of a research project being conducted by RMIT University. Please read this sheet carefully and be confident that you understand its contents before deciding whether to participate. If you have any questions about the project, please ask one of the investigators.

Who is involved in this research project? Why is it being conducted?
The research project is being conducted by Duro Kolar as partial fulfilment of the PhD (Built Environment) under the supervision of Professor Derek Walker. This research has been approved by the RMIT Human Research Ethics Committee.

Why have you been approached?
You have been identified as an expert involved in strategic decision-making of a project or a subsidiary project under the Building the Education Revolution (BER) program. Your details have been obtained from contacts known to the RMIT research team.

What is the project about? What are the questions being addressed?
The purpose of this study is to understand and describe external and internal factors that influence organisational strategic decision-making in project environments. In the first of two phases of the research, some 17 participants from organisations were interviewed. In this second phase, a smaller group of about 10 people, all viewed as experts, are being asked to comment on the findings of the research. The collated views of all the participants will then be shared, albeit anonymously, with the rest of the group in the next round of the process. It is currently anticipated that there will be two rounds of the process.
If I agree to participate, what will I be required to do?

Participating in the study is completely voluntary. If you agree to participate in this second phase of the research, you will be forwarded a document with the research propositions or statements, model and a link to an online website where you will be asked to comment on the merits and possible failings of the research propositions or statements and model. The purpose of seeking comment individually and then sharing the collated feedback on an anonymous basis is to enable each participant to express their views freely and for their comments to be considered on their merits during later rounds of the process. It is expected that at the end of two rounds, a reasonable degree of convergence should occur in the position of the experts following the sharing of views as described above.

Your input is expected to take no longer than 30 to 45 minutes to complete for each round of the process.

What are the possible risks or disadvantages?

There is no perceived risk associated with participating in this study. The study does not seek any identifiable information from the participants. If you are unduly concerned about your responses to the questions or if you find participating in the project distressing, you should contact Derek Walker as soon as convenient. Derek Walker will discuss your concerns with you confidentially and suggest appropriate follow-up, if necessary.

What are the benefits associated with participation?

As an expert, you are making vital organisational strategic decisions that influence successful project or program outcomes. While much attention has been paid to strategic decision-making as a whole, factors that influence organisational strategic decision-making in project environments has attracted much less attention, if any.

This study will, for the first time, provide data for the project management profession and for academia an insight into the factors that influence organisational strategic decision-making in project environments. Individuals participating in this study will, upon request, have subsequent access to published reports stemming from the research via industry magazine sources and indirectly through academic sources. The research outcomes will also benefit the community at large and the project management profession.

What will happen to the information I provide?

All the information you provide will be treated confidentially. Only the investigators will have access to the information. You will not be personally identified in any publication arising from the study. The information that you provide will only be accessible to authorised individuals within the School of Property Construction and Project Management at RMIT University. All electronic information will be stored on a secure server and will only be accessible to the researchers involved with this study. Any information that you provide can be disclosed only if (1) it is to protect you or others from harm, (2) if specifically required or allowed by law, or (3) you provide the researchers with written permission. Results may be published in journals and/or more widely or thesis in the RMIT Repository, which is a publicly accessible online library of research papers. Data may be used in aggregate form and the researchers plan to use pseudonyms or any other de-identifying techniques. The research data will be kept securely at RMIT University for 5 years after publication, before being destroyed.

What are my rights as a participant?

Participation in the study is voluntary and you have no obligation to be involved. You have the right to withdraw your participation at any time. You have the right to have any unprocessed data withdrawn and destroyed, provided it can be reliably identified. You have the right to have any questions answered at any time.
Whom should I contact if I have any questions?

If you have any questions about any aspect of this study please contact Derek Walker or Duro Kolar.

How do I confirm that I am prepared to participate?

It is understood that you are willing to participate in this research and you are not required to respond further if that remains the case. If, however, having read this letter, you wish to withdraw please forward a brief response to the email which accompanied this letter.

Thank you for taking the time to read this letter and I look forward to your comments through the research process.

Yours sincerely

Duro Kolar
PhD Candidate
RMIT University
[Date]

Derek Walker
Professor of Project Management
RMIT University
[Date]

If you have any concerns about your participation in this project, which you do not wish to discuss with the researchers, then you can contact the Ethics Officer, Research integrity, Governance and Systems, RMIT University, GPO Box 247E VIC 3001. Tel: (03) 9925 2251 or email human.ethics@rmit.edu.au

(Project number: CHEAN B 0000018522-03/14)
APPENDIX C

Participant Debriefing Paper (Delphi)
PARTICIPANT BRIEFING PAPER

Dear ...

Firstly, thank you for participating in this research project. I received some highly useful and constructive feedback and this has been most helpful in advancing my thoughts and ideas on the propositions and model.

I closed off round one at midnight on Wednesday 4 November 2015 after an extension of the round due to a number of panel experts unable to commit to the survey by 21 October 2015. Subsequent the analysis of round one, the results revealed that a good degree of consensus was achieved for all propositions/statements (see Table 1 and Figure 1). This means that there is no need for an additional round.

Table 1: Summary of Round One Results

<table>
<thead>
<tr>
<th>Proposition no.</th>
<th>Comments (aggregated, if and when needed)</th>
<th>Round 1 Score (mean, (σ), median, coefficient of variation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Project relations usually involves a team of people. Leadership at the corporate level feeds down to CEO's, senior managers and project managers. If all are aligned relations can flourish, if not, a small number of people are not aligned, can disrupt projects and lead to delays, cost overruns, damage to corporate branding and failure.</td>
<td>4.33, (0.52), 4.0, 0.12</td>
</tr>
<tr>
<td>P2</td>
<td>Projects need the right mix of hard and soft project controls to be successful. The tendency to try to manage projects and control risks through contracts is flawed. Similarly, a complete reliance on informal relationships creates a lack of accountability and reduces ability to affect great outcomes.</td>
<td>4.67, (0.52), 5.0, 0.10</td>
</tr>
<tr>
<td>P3</td>
<td>Organisations look to contracts, hard policies and processes to manage where trust and relationships are weak. However in situations where there is too much trust (and not enough formality), accountability is diminished. The development of governance frameworks need to be inclusion of key stakeholders or else it will not be embraced by the numbers.</td>
<td>4.00, (0.63), 4.0, 0.16</td>
</tr>
</tbody>
</table>
I don’t necessarily think this is the norm as organisations seek to maintain accountability across project participants, even when there is a degree of trust. Roles and expectations are defined. This enables the project to be reviewed against defined milestones and individuals to be accountable.

People turn to relationships when they lose faith in the governance mechanisms. The aim is to create a work environment for all to flourish.

Some projects need strong leadership and people who can make hard decisions. There is a balance as to how this is communicated to ensure people are aligned.

Well established and accepted governance mechanisms should act as quality assurance mechanisms to test and reframe cognitive biases and rationalising behaviour. This provides clear corporate direction, an environment for individual to flourish and their work to be valued. It is still up to the leaders to ensure those values are respected and implemented. If not commence a review cycle of the governance framework.

Figure 1: A simplified illustration of the propositions.
Conclusion

This concludes the research study. The findings explain not only how the Building the Education Revolution (BER) program or subsidiary projects panned out (or came to reality) but also necessary transformations needed to optimise success for other government project or program policies.

Your input has been highly valuable and thank you once again for your participation.

Yours sincerely

Duro Kolar
PhD Candidate, RMIT University

[Date]
APPENDIX D

Participant Details
<table>
<thead>
<tr>
<th>Participant</th>
<th>Organisation</th>
<th>Position</th>
<th>Years of Public Sector Experience</th>
<th>Type of Interview</th>
<th>Length of Interview (Minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A</td>
<td>Infra-GA</td>
<td>Director</td>
<td>30 years</td>
<td>Face-to-Face</td>
<td>55</td>
</tr>
<tr>
<td>1B</td>
<td>Infra-GB</td>
<td>Principal Project Manager</td>
<td>40 years</td>
<td>Face-to-Face</td>
<td>74</td>
</tr>
<tr>
<td>1C</td>
<td>Infra-GC</td>
<td>Director</td>
<td>12 years</td>
<td>Face-to-Face</td>
<td>33</td>
</tr>
<tr>
<td>2C</td>
<td>Infra-GC</td>
<td>Director</td>
<td>5 years</td>
<td>Face-to-Face</td>
<td>50</td>
</tr>
<tr>
<td>3C</td>
<td>Infra-GC</td>
<td>Project Manager</td>
<td>40 years</td>
<td>Face-to-Face</td>
<td>55</td>
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<tr>
<td>4C</td>
<td>Infra-GC</td>
<td>Senior Project Officer</td>
<td>11 years</td>
<td>Face-to-Face</td>
<td>47</td>
</tr>
<tr>
<td>5C</td>
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<td>Face-to-Face</td>
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<tr>
<td>7C</td>
<td>Infra-GC</td>
<td>Senior Project Officer</td>
<td>3 years</td>
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<tr>
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<td>Infra-GC</td>
<td>Senior Program Manager</td>
<td>5 years</td>
<td>Telephone</td>
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<td>Deputy Director</td>
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<tr>
<td>10C</td>
<td>Infra-PB</td>
<td>Project Manager</td>
<td>1 year</td>
<td>Face-to-Face</td>
<td></td>
</tr>
<tr>
<td>11C</td>
<td>Infra-PB</td>
<td>Project Manager</td>
<td>2 years</td>
<td>Face-to-Face</td>
<td>70</td>
</tr>
<tr>
<td>1D</td>
<td>Infra-PA</td>
<td>Principal Consultant</td>
<td>3 years</td>
<td>Face-to-Face</td>
<td>45</td>
</tr>
<tr>
<td>1E</td>
<td>Infra-PC</td>
<td>Partner</td>
<td>20 years</td>
<td>Face-to-Face</td>
<td>34</td>
</tr>
<tr>
<td>1F</td>
<td>Infra-PB</td>
<td>Senior Program Manager</td>
<td>5 years</td>
<td>Face-to-Face</td>
<td>40</td>
</tr>
<tr>
<td>1G</td>
<td>Infra-GG</td>
<td>Project Manager</td>
<td>1 year</td>
<td>Face-to-Face</td>
<td>50</td>
</tr>
</tbody>
</table>
APPENDIX E

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APPENDIX F

RMIT University Ethics Approval
Notice of Approval

Date: 16 April 2014

Project number: CHEAN B 0000018522:03/14

Project title: Improving the link between project management and strategy to optimise project success

Risk classification: Low Risk

Investigator: Professor Derek Walker and Mr Duro Kolar

Approved: From: 16 April 2014 To: 02 September 2015

I am pleased to advise that your application has been granted ethics approval by the Design and Social Context College Human Ethics Advisory Network as a sub-committee of the RMIT Human Research Ethics Committee (HREC).

Terms of approval:

1. Responsibilities of investigator
   It is the responsibility of the above investigator/s to ensure that all other investigators and staff on a project are aware of the terms of approval and to ensure that the project is conducted as approved by the CHEAN. Approval is only valid whilst the investigator/s holds a position at RMIT University.

2. Amendments
   Approval must be sought from the CHEAN to amend any aspect of a project including approved documents. To apply for an amendment please use the ‘Request for Amendment Form’ that is available on the RMIT website. Amendments must not be implemented without first gaining approval from CHEAN.

3. Adverse events
   You should notify HREC immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.

4. Participant Information and Consent Form (PICF)
   The PICF and any other material used to recruit and inform participants of the project must include the RMIT university logo. The PICF must contain a complaints clause including the project number.

5. Annual reports
   Continued approval of this project is dependent on the submission of an annual report. This form can be located online on the human research ethics web page on the RMIT website.

6. Final report
   A final report must be provided at the conclusion of the project. CHEAN must be notified if the project is discontinued before the expected date of completion.

7. Monitoring
   Projects may be subject to an audit or any other form of monitoring by HREC at any time.

8. Retention and storage of data
   The investigator is responsible for the storage and retention of original data pertaining to a project for a minimum period of five years.

In any future correspondence please quote the project number and project title.

On behalf of the DSC College Human Ethics Advisory Network I wish you well in your research.

Suzana Kovacevic
Research and Ethics Officer
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RMIT University
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Website: www.rmit.edu.au/dsc