

IT Outsourcing Decision Processes and Related Decision Models

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ABSTRACT

This research was triggered by reports that management is uncertain about the process to be undertaken when deciding to outsource. A study published by Gartner (2008) shows that a surprisingly large number of organizations that decide to outsource are not following a structured approach, sometimes the decision is even found to be ad-hoc. The same empirical research also suggests that many organizations are not satisfied with their outsourcing arrangements with managers' expectations not being fulfilled.

This thesis is an exploratory study that is divided into two phases. Phase 1 adopts a multiple case study approach (Yin, 2009) subscribing to the interpretive paradigm, followed by a longitudinal case study for Phase 2. The thesis explores two main research questions: 1) How do real world decision makers approach an outsourcing decision, and what influences the adoption of decision frameworks and decision models?; and 2) What is the connection between the outsourcing decision-making process and the outcome of the outsourcing decision? Related sub-questions are explored.

The thesis reviews the Information Technology Outsourcing (ITO) literature to find that there is a plethora of decision models, which is in conflict with Gartner's finding that outsourcing decisions are often made without a clear strategy, and with other researchers who find that models are not known by practitioners (Brannemo, 2005). A taxonomy of decision models is developed to provide insights on the applicability and limitations of the various decision-making models prescribed in the academic literature.

Moreover, from the review of the ITO literature it is also found that there is a lack of empirical research on actual ITO decision processes and the effect they might have on outsourcing outcomes. In an attempt to better understand ITO decisions by researching decision-making, the strategic decision-making literature is reviewed, and from the literature a research framework is developed that is based on a seminal paper by Bell, Bromiley and Bryson (1997).

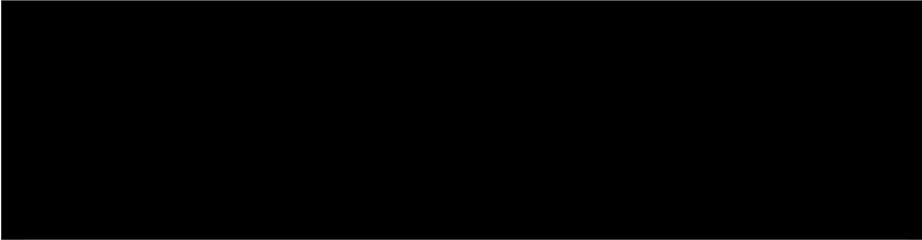
In Phase 1, outsourcing decisions by six large, Australian-based companies are reviewed. Of the six organisations reviewed, three organisations were outsourcing for the first time. At these organisations, a powerful stakeholder, who pushed the idea from inception through to implementation, triggered the decision, which according to Nutt (2008) can be classified as *Idea Imposition* process.

The three other organisations studied were *Routinieres* at outsourcing decision-making through prior outsourcing experience. At these organisations, decision makers followed a more rigorous and formalised decision process, which according to Nutt (2008) can be classified as a *Discovery* process.

The thesis finds that the adoption of *Discovery* processes leads to better results than *Idea Imposition* processes. We conclude that decision makers should adhere to more rational and formalized *Discovery* process resulting in better decision outcomes.

DECLARATION

The work presented in this thesis, to my knowledge and belief, contains no material which has been previously published or written by another person, except where due reference is made in the text of the thesis. I hereby declare that I have not submitted this material, either whole or in part, for a degree or diploma in any university or other institution.



Peter Westphal

DEDICATION

I dedicate this thesis to my wife, Minjuan, and our two little children, Heidi and Albert, for all their support during my studies, and who inspired me to continue through my most challenging moments.

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PUBLICATIONS

Publications Resulting from this Research

Journals

Westphal, P., Sohal, A. S. (2013). Taxonomy of outsourcing decision models. *Production Planning & Control: The Management of Operations*, 24(4-5), 347-358.

Conference Proceedings (Referred)

Westphal, P., Sohal, A. S., (2012). Outsourcing Decision-Making: A Multiple Case Study, *Proceedings of the 2012 Academy of Management Annual Meeting*, Boston, MA, August 3-7

Westphal, P., Sohal, A. S. (2009). Taxonomy of IT/IS Outsourcing Decision Models, *Proceedings of the 20th Annual Conference of the Australian and New Zealand Academy of Management*, Melbourne, Australia, December 2-4

Conference Proceedings (Non-Referred)

Westphal, P., Sohal, A. S., (2012). IT Outsourcing decisions of four Australian-based Companies, *Proceedings of the 10th Annual Operations, Supply Chain & Services Management Symposium 2012 of the Australian and New Zealand Academy of Management*, Melbourne, Australia, June 14-15

GLOSSARY

A

AHP, Analytic Hierarchic Process (Yang & Huang, 2000)

application, is software which performs data processing or workflow tasks

application outsourcing, is a form of outsourcing whereby an organisation is receiving application development, support and/or maintenance services from an external service provider (Gartner, 2013)

asset, can be any item of computing equipment, software, and related objects

availability, is the portion of a defined period that a service is available

B

C

CEO, Chief Information Officer

CIO, Chief Executive Officer

CMM, the Capability Maturity Model is a framework developed by the Carnegie Mellon University that provides a maturity assessment of IT processes. The scale spans from 1 (lowest) to 5 (highest) (see also <http://cmmiinstitute.com/>)

COBOL, is a procedural 3rd generation programming language that was developed in the 1960s and is still in use in many organisations (Mitchell, 2012)

D

data centre, is a facility that is specifically designed to house and allow operation of computer equipment, often in a highly secure and controlled environment

E

enterprise architect, is a role within an organisation that develops the enterprise architecture

enterprise architecture, is a discipline that develops a blueprint of the organisation's structure and operations (Gartner, 2013)

ERP, Enterprise Resource Planning

F

facility, is a building with a function

G

GFC, Global Financial Crisis

H

hosting, is the housing and operation of computing equipment in a data centre

I

insourcing, is the process of bringing the provision of a service that was previously performed by an external party, back in-house (Dibbern, Goles, & Hirschheim, 2004)

IT, Information Technology

IT asset, is the same as an asset

IT asset lifecycle, covers the entire lifespan of an asset, including the stages of an asset, from procurement, setup, operation to decommissioning (Gartner, 2013)

IT infrastructure, includes all IT hardware assets, for example the LAN, WAN, and server equipment

ITO, Information Technology Outsourcing

IAOP, International Association of Outsourcing Professionals (see also <http://www.iaop.org/>)

J

K

L

LAN, Local Area Network

M

mainframe, is a high performance computer that exceeds the performance of PCs and midrange computers, completing all data processing for connected terminals in a centralised architecture (Gartner, 2013)

master service agreement, is a contract that sets out general terms and conditions between parties, which then allows parties to quickly establish transactions (often in the form of statements of work) relying on the terms in the master service agreement (Blair, O'Connor, & Kirchhoefer, 2011)

N

O

ODM, Outsourcing Decision-Making

offshore outsourcing, is a form of outsourcing, whereby the service provider is located in a different geographical area than is the organisation that procures the services (Gonzalez, Gasco, & Llopis, 2006b)

offshorer, is a service provider that delivers offshore outsourcing services

onshore, is a form of outsourcing, whereby the service provider is located in the same geographical area as the organisation that procures the services (Gonzalez et al., 2006b)

outsourcing, is the process of externalizing the provision of a service that was previously delivered by an in-house function (Loh & Venkatraman, 1992)

P

prime source, is a service provider that is accountable for delivering an end-to-end service, but may sub-contract part or all of the service delivery to other service providers (Cullen, Seddon, & Willcocks, 2005)

Q

R

RFP, Request for Proposal

RFI, Request for Information

S

SAP, is a German software company

SCM, Supply Chain Management

SDM, Strategic Decision-Making

server, is a high performance computer that performs data processing services for a connected client computer

service level, describes the target performance levels for a service (Gartner, 2013)

SLA, a Service-Level Agreement is a contract that defines service level for a range of services (Gartner, 2013)

service provider, is an organisation that provides services to a receiving organisation (Grover, Cheon, & Teng, 1994)

selective sourcing, is the sourcing of some, but not all services from an external services provider (Dibbern et al., 2004)

sole source, is the exclusive sourcing of services from a single service provider (Cullen et al., 2005)

T

total sourcing, is the outsourcing of all IT services to one or many external service providers (Dibbern et al., 2004)

U

V

vendor, is the same as service provider.

W

WAN, Wide Area Network

X

Y

Z

ZDNET, is an online journal for IT professionals that can be accessed through www.zndet.com

1 INTRODUCTION

1.1 BACKGROUND OF THE RESEARCH

This research was triggered by reports that management is uncertain about the process to be undertaken when deciding to outsource. A study published by Gartner (2008) shows that a surprisingly large number of organizations that decide to outsource are not following a structured approach. The decision is often even ad-hoc:

“More than 70% of organizations make sourcing decisions without a sourcing strategy or any kind of methodical, systemic approach.” (Gartner, 2008, p. 1)

The same research firm also finds that many organizations are not satisfied with their outsourcing arrangements with manager’s expectations not being fulfilled:

“More than 50 percent of Outsourcing contracts have been renegotiated pre-term due to the lack of a well documented baseline, absence of change mechanisms and misalignment of expectations.” (Gartner, 2008b, p. 2)

Information Technology Outsourcing (ITO) as a management practice can be traced back as early as the mid 1960’s, when Service Providers were offering data processing services to run programs for their clients (Apte & Sobol, 1997; Costa, 2001; McFarlan & Nolan, 1995). Since its emergence, ITO has been the subject of academic literature and an extensive body of research on the topic exists.

However, despite the large number of papers that exist on the subject, including the area of Outsourcing Decision-Making (ODM), which is the core focus of this proposed research, the literature review conducted by the author finds that whilst a number of outsourcing decision models exist, only a few appear to have the potential to support the outsourcing decision process.

This perceived lack of useful outsourcing decision models is confirmed by practitioners as well as researchers who state that there is a lack of a holistic, complete, prescriptive outsourcing decision model (Brannemo, 2005; DeBoer, Gaytan, & Arroyo, 2006; Gottschalk & Solli-Saether, 2006), thus providing further justification for this research.

Further, Harrison and Pelletier (2001) also identify a lack of research around the efficacy of process models to make a strategic choice, testing the hypothesis that a formal decision-making process is more likely to result in strategic decision success. This further supports interest into researching this area, however applied to ITO.

1.1.1 Definition of Outsourcing

A crisp, yet comprehensive definition of ITO is not available in the existing literature, despite the fact that there is a vast number of definitions on outsourcing available (Yang & Huang, 2000). In fact, there is not only a lack of such a definition, but in general, terminology in outsourcing seems “*far from clear*” (DeLooff, 1995, p. 281). DeLooff (1995) further writes: “*Authors and practitioners use different terms for different concepts. This leads to non-comparable research results and to disagreement between clients and suppliers*” (p. 281).

Most definitions of outsourcing focus on the handover of whole or part of an organization’s IT (business function) and / or the management of it by an outsourcing services provider (Grover et al., 1994; Ketler & Walstrom, 1993; Willcocks, Fitzgerald, & Feeny, 1995; Zhu, Hsu, & Lillie, 2001). Zhu et al.’s (2001) definition of outsourcing is different to the others. Their definition builds on Loh and Venkatraman’s (1992a) definition, which posits that outsourcing is the “*significant contribution by external vendors in the physical and/or human resources associated with the entire or specific components of the IT infrastructure in the user organization*” (p. 9), adding that outsourcing is a process. The result is a more comprehensive, and all encapsulating definition of outsourcing, one which includes a wide range of outsourcing types along the outsourcing continuum.

For the purpose of the research, and in absence of a crisp and more comprehensive definition, this research suggests a new definition:

Outsourcing is the process of externalizing the provision of a service that was previously delivered by an in-house function. A number of outsourcing types exist. Variables characterizing the type of outsourcing include, but are not limited to: the service scope ranging from a discrete IT/ IS function to an end-to-end business process; and the degree of externalization ranging from spinning-off the in-house IT department into a new entity [spin-off],

partnering with a third party [ally], creating a joint venture [joint venture], to outsourcing the service provision to a 3rd party [contract out].

The advantages of this definition are:

- A clear demarcation between outsourcing as the procurement of a service, not hardware or software, and
- Allowing for an all encompassing understanding of outsourcing that can include many sub-types, including in terms of the scope and type of relationship between the entities.

1.1.2 Outsourcing IT – A Strategic Decision Without Adequate Support

Decision makers can find in the ITO literature a plethora of decision models that are aimed at improving decision comprehensiveness, formality and rationality by guiding them through the decision process. The question must be asked, why according to Gartner's (2008b) research the majority of ITO decisions are made without a clear strategy, when there are so many decision models available in the literature to support the decision-making? The findings seem to indicate that ITO decisions are made without the use of any of these decision models, as the decision processes appear to lack rationality and formality. From the review of the academic literature a lack of empirical research into actual ITO decisions was noted, and in particular, descriptions of the adopted decision processes and their outcomes (Alsudairi & Dwivedi, 2010; Dibbern et al., 2004; Lacity, Khan, Yan, & Willcocks, 2010).

The strategic advantages of outsourcing have been frequently the subject of academic literature, with empirical research providing long lists of potential benefits of outsourcing. However, market research shows that decision makers treat outsourcing more as an ad-hoc opportunity to reduce costs only.

One global study, undertaken by Deloitte (2008), has found that 64% of organisations seeking to outsource primarily want to reduce costs, followed by 56% of organisations admitting that they outsource because they do not have the necessary skilled personnel to undertake their IT operations or to implement new technologies and therefore want to leverage the Service Provider's technology expertise. Another

49% say that the Service Provider's labour is cheaper, followed by the drive to increase customer value (37%) and to gain a competitive advantage (27%).

On the other hand, while it appears that infrastructure services such as desktop, networks, etc. are of limited strategic value, and can be characterized as a commodity services that are strong candidates for outsourcing (Bhattacharya, Behara, & Gundersen, 2003), it is also undebated that the accuracy and timeliness of the information delivered through the IT infrastructure can provide strategic advantages to the organization (Ngwenyama & Bryson, 1999), and further that not all IT services are commodity services and therefore should be carefully examined to whether they are strategic differentiators (so called "core competency") or not (Willcocks et al., 1995). Thus, the decision to outsource becomes a strategic decision. In conclusion, outsourcing decisions must be considered strategic decisions.

1.2 RESEARCH OBJECTIVE

The underlying research objective of this study is to understand ODM. The following two main research questions and several related sub questions have been developed as an overarching guide for this thesis:

RQ 1: How do real world decision makers approach an outsourcing decision, and what influences the adoption of decision frameworks and decision models?

RQ 1.1: What decision models are used during each stage of the outsourcing decision-making process?

RQ 1.2: What are the inhibitors in adopting outsourcing decision models?

RQ 2: What is the connection between the outsourcing decision-making process and the outcome of the outsourcing decision?

RQ 2.1: What impacts the adoption of a decision-making process type?

RQ 2.2: How does the context influences the discovery of outsourcing decision dimensions?

RQ 2.3: What influence does the process have on determining the choices for each dimension of the outsourcing decision?

RQ 2.4: How do the choices for each dimension of the decision impact the overall outsourcing decision outcome?

RQ 2.5: How does the outsourcing decision process itself impact the outsourcing outcome?

1.3 JUSTIFICATION OF THE STUDY

1.3.1 Why study Outsourcing Decision-Making Models?

As previously mentioned (compare Section 1.1), outsourcing has been the subject of numerous publications over the past four decades since outsourcing first emerged. Research on outsourcing decision-making (ODM) can be divided into two categories. The first includes studies that propose prescriptive outsourcing decision models, which often only focus on one of many stages of the ODM process, describing steps for practitioners to follow in order to make an outsourcing decision.

The second includes studies that explore the dimensions of ODM, creating frameworks that are aimed at helping to decompose and understand the complexity of the decision.

Various authors, amongst them Kremic, Tukul & Rom (2006) and C  nez, Platts & Probert (2000) in the area of SCM, and Cheon, Grover & Teng (1995), Pati and Desai (2005) and Koong, Liu & Wang (2007) in the area of IT, provide input into such general decision frameworks.

Yet practitioners as well as researchers state that there is a lack of holistic, complete and foremost prescriptive outsourcing decision models (Brannemo, 2005; DeBoer et al., 2006; Gottschalk & Solli-Saether, 2006b), given that the vast amount of the literature is descriptive in nature and focuses on the empirical study of the outsourcing phenomenon only, particularly the pros and cons of outsourcing (DeBoer et al., 2006). DeBoer et al. (2006) writes: *“We suspect and argue that many managers find it difficult to transfer general frameworks for outsourcing into practical decision-making action”* (p. 445).

Moreover, because of the above mentioned large number of papers, confusion exists among practitioners which is a *“fundamental dilemma”* (C  nez et al., 2000, p. 1313). Kremic et al. (2006) say that *“there is an abundance of information related to outsourcing in the literature that is waiting to be put into a more structured form for better decision support”* (p. 467).

1.3.2 Why study Decision-Making Processes?

Decision making is a critical task of management, and must be exercised with great care, as bad strategic decisions can have an adverse impact on a firm's performance (Heracleous, 1994). Whilst decision-making models are important in providing an understanding of the outsourcing decision, and can support decision makers in summarizing and analysing data, the actual decision-making process that underpins the decision-making is equally, if not more important. Researching the underpinning decision-making processes can provide further insights into the factors that impact the adoption of a decision model. The strategic decision-making (SDM) literature provides a linkage between the adoption of a model and the decision process. In order to adopt a strategic view of ODM, the outsourcing decision must be classified as a strategic decision. Whilst Nutt (2008) suggests that researchers define strategic quite differently, there are a number of common characteristics for strategic decisions. Criteria to assess if a decision is strategic include: being executed infrequently (Eisenhardt & Zbaracki, 1992) and by top executives (Papadakis, Lioukas, & Chambers, 1998), being big and risky with great impact on organizational successes (Eisenhardt & Zbaracki, 1992; Mintzberg, Raisinghani, & Theoret, 1976; Papadakis et al., 1998), and being hard to reverse (Papadakis et al., 1998), the ITO decision must be classified as a strategic decision. The ITO literature has long posited that outsourcing decisions should be treated strategically (Heywood, 2001; Lacity, Willcocks, & Feeny, 1996; Lee, 2006; Pati & Desai, 2005), hence adopting a strategic view of the outsourcing decision and applying a SDM framework to research outsourcing decisions appears justified.

1.3.3 Why adopt a Qualitative Approach?

The body of literature on decision-making is large (Hutzschenreuter & Kleindienst, 2006; Nutt, 2011). Hutzschenreuter and Kleindienst (2006) go as far to say that one might get lost in the complexity of the field. This has prompted a number of authors to conduct structured reviews of the literature (e.g. Eisenhardt & Zbaracki, 1992; Hutzschenreuter & Kleindienst, 2006; Nutt, 2011; Papadakis, Thanos, & Barwise, 2010). Nutt (2011), identifies from the literature three approaches to researching decision-making, prescriptive research that provides an understanding of how decisions should be made (e.g. Friday-Stroud & Sutterfield, 2007; Harrison &

Pelletier, 2001; Nutt, 1989), descriptive research that investigates what decision makers do (e.g. Bourgeois & Eisenhardt, 1988; Mintzberg et al., 1976), and related research that uncovers what decision makers do and how it deviates from what they should do (e.g. Dean & Sharfman, 1996; Nutt, 2002, 2011). Considering the research objective, this thesis falls within the descriptive research category, by trying to uncover what decision makers do. Further, it appears from the literature review that in the field of SDM, quantitative methods are preferred with only few studies adopting qualitative methods (e.g. Bourgeois & Eisenhardt, 1988; Nutt & Wilson, 2010; Papadakis, Kaloghirou, & Iatrelli, 1999). This may be the result of the level of maturity of this field of research. Nutt (2011, p. 11) writes:

“To be published decision-making research, like all of management, must stress rigor. This has moved researchers away from the study of decisions to research questions that allow investigators to focus on factors that can be operationalized and deftly measured in a single study. This has forced researchers to study tangential aspects of decision-making, such as the number of participants, instead of larger questions that, by their very nature, resist precise measurements. The measure of a factor is not given by its measurability. To illustrate, a key factor in decision-making is process. One way to measure process is to codify the actions taken by a decision maker. Documenting these actions and determining their consequences pose many methodological challenges and call for qualitative methods. Such methods are often rejected because they lack rigor. Embracing this challenge should be the thrust of future work. Research is called on to seek a better balance of rigor with relevance.”

Further, from the review of both the ITO and SDM literature a lack of rich ITO decision-making stories is noted, and this study tries to address this gap. Eisenhardt and Graebner (2007) discuss the issue of presenting “*better stories vs. better theories*” (p. 29) at some length. Although admitting that some readers may be disappointed not to see rich stories, they argue that the objective is theory development and that well-crafted tables can be used to summarize the data. However, one of the best examples of rich stories is in fact provided by Bourgeois and Eisenhardt (1988) with their seminal paper on “Strategic Decision Processes In High Velocity Environments”, where four cases are described in some detail. This thesis follows this example and provides more detailed stories of the six cases as this aligns with the overall objective of building an in-depth understanding of real world decision-making processes in different settings.

1.4 THEORETICAL UNDERPINNINGS OF THE THESIS

A review of the outsourcing literature revealed that there is a plethora of decision-making models. However, as per quote of market research firm Gartner (Section 1.1), there seems to be a low adoption rate of these models. Brannemo (2005) explains the low adoption rate of existing models with their over-simplification:

“A questionnaire about sourcing decisions indicates that companies consider sourcing decisions as complex and companies tend to have a lack of models supporting the decision process. Thus, the need for a model supporting sourcing decisions is large” (p. 548).

A similar sentiment is expressed by Kremic et al. (2006), who concludes that a decision model taxonomy is needed:

“There is an abundance of information related to outsourcing in the literature that is waiting to be put into a more structured form for better decision support” (p. 467).

Further, De Looff (1995) says about the field of outsourcing that terminology seems “*far from clear*” (p. 281) and writes further:

“Authors and practitioners use different terms for different concepts. This leads to non-comparable research results and to disagreement between clients and suppliers”.

In an attempt at theory building, this study firstly develops a decision model taxonomy, which lays the foundation to furthering an understanding of outsourcing decisions and consequently for further theory building.

Secondly, by adopting a strategic view of the ITO decision, this thesis applies a priori constructs from the SDM theory, to firmly ground the research in the existing theory whilst allowing to further refining and building theory. Two seminal papers from Bell, Bromiley and Bryson (1997) and Nutt (2008) guided the development of the research framework for this study.

1.5 RESEARCH METHODOLOGY

This thesis is an exploratory study that adopts a multiple case study approach (Yin, 2009) subscribing to the interpretive paradigm. A benefit of case study research is that it allows a holistic view of decision-making, which is particularly useful considering the number of stakeholders involved and their different perspectives.

The field work for this study has been designed as two phases. Figure 1.1 provides an overview of the overall research design for this thesis. Phase 1 is a multiple case study research comprising of six cases of large, Australian-based organisations, including manufacturers (2 cases), insurance (1 case), financial organisation (2 cases), and resources organisation (1 case). Phase 2 is an in-depth longitudinal case study of two of the organisations from Phase 1, the insurance organisation and one of the manufacturing organisations. The cases and participants for the interviews were based on a convenience sample. The study used a number of data sources, including interviews (with 16 informants), and document analysis. Unit of Analysis was the actual outsourcing decision, as opposed to the entire organisation.

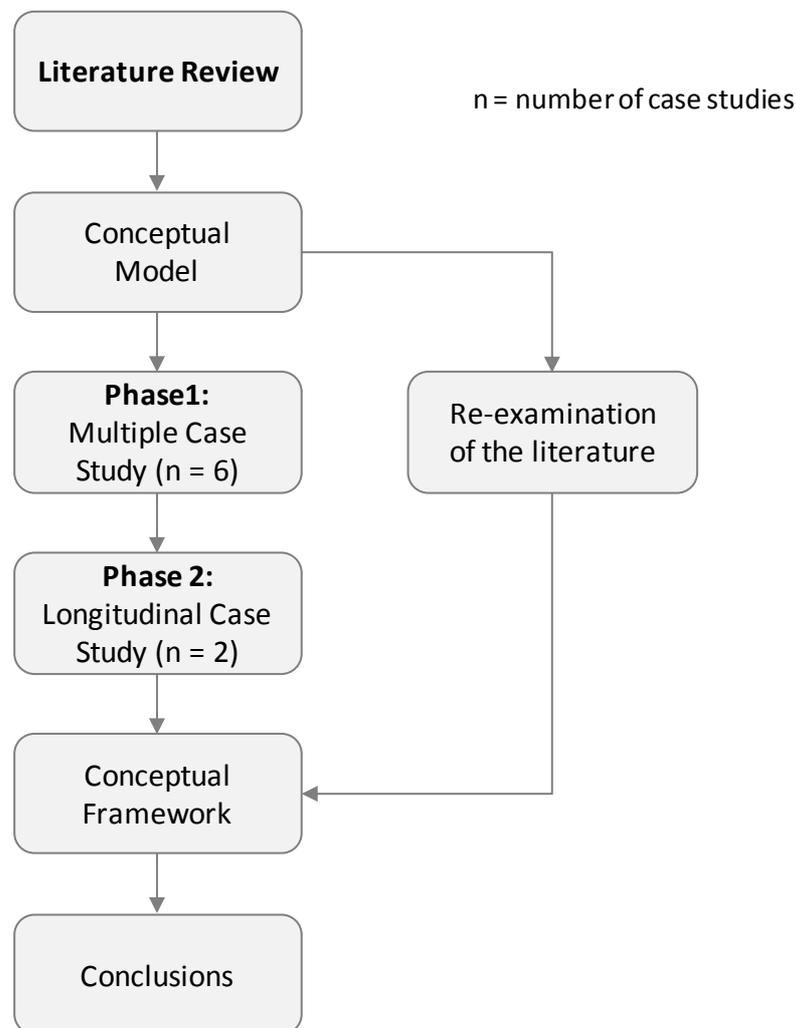


Figure 1.1 Research Design

1.6 CONTRIBUTION TO ACADEMIC KNOWLEDGE

The purpose of this research is to fill a void in the outsourcing literature, which fails to provide in-depth analysis of the outsourcing decision process, particularly lacking empirical research around decision models and how the selection of a process and adoption of models relates to the outcome of the outsourcing decision.

It is envisaged that this research will:

- lead to a better understanding of the outsourcing decision process in general, and in particular how the different decision processes lead to different results
- yield conclusions about existing decision models and their adoptability, allowing for different context, and
- enable the formulation of recommendations in regards to the adoption of existing models and decision processes aiming at improving outcomes from outsourcing decisions .

However, it shall also be acknowledged here that any research on decision-making will have its limitations in terms of generalizability given that previous researchers have already stated that there is no “*one best way to manage*” (Bell et al., 1997, p. 163).

1.7 THESIS STRUCTURE

Having provided a justification and purpose for the research, the following chapter (Chapter 2) provides an overview of the existing literature relevant to the topic, including ITO, outsourcing in more general terms, and ODM Processes.

Chapter 3 further examines the SDM literature, developing a Conceptual Framework and related Research Questions.

Chapter 4 provides an overview of the research methodology, and details the data collection and data analysis process for this study.

Chapter 5 reports the results from the case study research as part of Research Phase 1. At the end of the chapter, results from the cases are compared and summarized.

Chapter 6 reports results from two longitudinal in-depth case studies undertaken as part of Research Phase 2. At the end of the chapter results from the cases are compared and summarized.

Chapter 7 discusses the results in light of the extant literature.

The thesis concludes with Chapter 8, summarizing key contributions from this thesis and discusses limitations and opportunities for future research.

1.8 SUMMARY OF CHAPTER 1

In this chapter the background of the study was provided, and the research undertaken on ITO decision-making justified based on the apparent lack of structured decision-making by real world decision makers, and the reported low percentage of successful outsourcing arrangements according to leading market research firms. It is also evident that there is a lack of in-depth case descriptions of decision-making in general, and ITO in particular, and that the ITO decision-making is under-researched, hence requires studying. The overall research objective and research questions that guided the research were provided. This chapter also identified that SDM theory was adopted as the theoretical lens for this thesis.

This chapter also highlights that a qualitative approach was selected, and has been designed in two phases. Overall, six cases in a multiple case study design (Phase 1), and two cases in an in-depth, longitudinal case study design (Phase 2) were involved. The study contributes to the literature by proposing a taxonomy of ITO decision models, and further by examining in-depth actual ITO decision-making at large, Australian-based organisations, expanding on existing SDM theory.

The next chapter provides an extensive review of the outsourcing literature as it applies to the research objective.

2 LITERATURE REVIEW

2.1 INTRODUCTION

In an effort to shed light on the outsourcing decision process, a literature review was undertaken. The objective of this chapter is to summarize the review of the outsourcing literature that assisted in building an understanding of outsourcing decisions, and in particular to provide an overview of the decision frameworks and models the literature provides.

This chapter is structured as following: After a brief discussion of the state of the outsourcing literature and some common issues (Section 2.2), Section 2.3 provides an overview of the progression of the outsourcing literature over the past 30 years. This is followed by a more in-depth review of the ODM literature (Section 2.5), and an analysis of decision-making processes in general, and in the context of the outsourcing decision (Section 2.6). Section 2.7 establishes a view of the decision model prescriptions in the academic literature, and confirms the need to develop a decision model taxonomy in order to better understand the applicability of each decision model type to the decision-making process. Sections 2.8 and 2.9 propose and discuss such a decision model taxonomy, providing insights into the applicability of the proposed decision-making models prescribed in the literature. As a result of the review, an initial set of research questions are proposed (Section 2.10), which will be examined in this thesis.

2.2 LACK OF AN OUTSOURCING TAXONOMY

Before a summary of the review of the outsourcing literature is provided, it is noted that from the literature review it became obvious that a major limitation of research in the outsourcing field is that the large number of contributions over the last four decades has led to great inconsistency in terms of an outsourcing taxonomy. De Looft (1995) says about the field of outsourcing that terminology seems “*far from clear*” (p. 281) and writes further: “*Authors and practitioners use different terms for different concepts. This leads to non-comparable research results and to disagreement between clients and suppliers*”. Furthermore, in the words of Kremic et al. (2006): “*there is an abundance of information related to outsourcing in the literature that is waiting to be put into a more structured form for better decision support*” (p. 467). Therefore, besides identifying the gaps in the literature, the literature review process also helped to develop a taxonomy around the outsourcing decision which the literature review has identified as another gap.

2.3 DEVELOPMENT OF OUTSOURCING AND RELATED PROGRESSION OF THE OUTSOURCING LITERATURE

The practice of outsourcing spans over 40 years and the amount of literature exploring outsourcing and outsourcing decisions is large, thus a summary of the progression of the literature is necessarily brief and may have omitted important contributions.

It is no surprise to find that the review of the outsourcing literature showed that research around outsourcing has evolved in line with the development of outsourcing.

The practice of outsourcing can be traced back as early as the mid 1960's, when Service Providers were offering data processing services - to run programs for their clients (Apte & Sobol, 1997; Costa, 2001; McFarlan & Nolan, 1995). Outsourcing in the 1960's promised organisations increased cost effectiveness – outsourcing clients did not need to buy hardware which they would have rarely used, nor had to build up in-house skills and functional knowledge (Ketler & Walstrom, 1993; McFarlan & Nolan, 1995). The 1970's were characterized by a shortage of programmers, due to the rapidly growing demand for Information System (IS) applications, which lead to a wave of contract programming (Ketler & Walstrom, 1993). During the 1980's the trend reversed due to renewed emphasis on vertical integration, therefore IS again

became a valued in-house resource. Due to the relatively low interest in outsourcing during the 1980's, which was mainly done by small and medium sized companies to make up for a lack of IT expertise, research effort on the topic had been limited. In terms of outsourcing, the 1990's started with a big bang. The decision by Eastman Kodak to "total"-outsource their IT to an IBM led consortia of three other Service Provider, including DEC, Businessland and Andersen Consulting in 1989 is often cited in the literature as a deciding moment for outsourcing. Described by McFarlan and Nolan (1995) as a "*real wake-up call*" (p. 10) for the then CIOs, or as Gonzales, Gasco and Llopis (2006a) calls it the "*Kodak-effect*" (p. 823), this single decision sparked many companies, particular larger organisations which had not contemplated it, to follow suit and adopt the practice of outsourcing (Loh & Venkatraman, 1992). Another two factors that McFarlan (2005) identified was: the historic fall of the Berlin Wall in 1989 and the subsequent opening up and liberation of trade with the former Eastern Bloc that brought three billion people into the global workforce, particularly from India, China and Eastern Europe; and the setup of high-speed telecommunication links around the world. In terms of research, the "*Kodak Effect*" created a renewed interest in outsourcing.

As can be seen from Table 2.1, although there is research on outsourcing before the 1990's, much of it, particularly the organizational theories developed in the '70 and '80s, which laid the ground work, it was not until the mid 1990's that a renewed interest in outsourcing triggered a large number of publications on this topic. A list of some of the seminal literature reviewed by the researcher and sorted by decade and content is presented in Table 2.1.

Due the increased interest into outsourcing post the Eastman-Kodak's decision, many empirical research studies have tried to understand the benefits of outsourcing (Antonucci, Lordi, & Tucker, 1998; Clark, Zmud, & McCray, 1995; Ketler & Walstrom, 1993). Following on from the new outsourcing hype of the early 1990's, approximately between four and six years into the first outsourcing arrangements that were agreed to in the wake of the Kodak effect, researchers no longer tried to explain the outsourcing phenomenon and what drove it, but also looked at the practices that had been established and the lessons learned from it (Loh & Venkatraman, 1992). Studies included Lacity and Hirschheim (1993), Grover et al. (1994), Aubert, Rivard

and Patry (1996), and Lacity and Willocks (1998). This led to the development of industry-wide accepted best practices and common rules, such as the recommended maximum length of outsourcing arrangements, the definition of service level agreements, and the selection of Service Providers, etc. Continuing the theory development from the 1980's researchers also tried to use some of the existing theories to explain the outsourcing phenomena and its implications, including the Agency theory (Eisenhardt, 1989; Jensen & Meckling, 1976) and the Resource Based theory (Barney, 1991).

Since the early 1990's, outsourcing had grown at a phenomenal rate, and this growth continued in the 2000's. Estimated at US\$ 43 billion in 1998 (Yang & Huang, 2000), the ITO market had increased until 2005 to an estimated US \$ 67.9 billion, a growth of over 30 % in less than seven years, and that figure does not include IS outsourcing, which in 2003 was estimated at around US \$ 150 billion, or business process outsourcing which had already exceeded the US \$1 trillion mark by 2001 (Yang, Kim, Nam, & Min, 2006). But the growing labour costs of the increasingly flourishing offshore locations such as India and also the distance (culturally and geographically) between the Service Providers and their clients are only examples of the many new challenges in outsourcing (McFarlan, 2005). Not only had outsourcing grown, but also the number of publications on this topic, which meant that outsourcing was a practice to stay. However, the focus in the literature of the 2000's had shifted from an initial interest in the possible benefits and decision-making process towards particular aspects of outsourcing, including risks management (Bahli & Rivard, 2005; Hoecht & Trott, 2006; Mathew, 2006; Sullivan & Ngwenyama, 2005; Taylor, 2007), particularly the risks and challenges associated with the emerging offshoring trend (Beulen, Fenema, & Currie, 2005; McFarlan, 2005; Oza & Hall, 2005; Ramsaran, 2004); the effect outsourcing has on staff and the knowledge (Willocks, Hindle, Feeny, & Lacity, 2004); governance (Feeny, Lacity, & Willcocks, 2005); and most recently, the new business process outsourcing practices with information systems (IS) heavily integrated into all business processes and multiple business partners involved in a firm's supply chain (Gottschalk, 2006; Xu, 2007; Yang et al., 2006). The ever growing number of publications on this topic is in itself evidence that outsourcing is here to stay and not a yesterday's trend.

Table 2.1 Progression of the literature over the past 5 decades

Era	Research with an ITO Relevance / Perspective
The 70's & 80's Theoretical foundation for outsourcing	<u>Theories:</u> Agency theory (Jensen & Meckling, 1976) ; (Eisenhardt, 1989); Transaction Cost theory (Williamson, 1981)
The early 90's Motivations to outsource, benefits and risks	<u>Motivations, benefits:</u> (Lacity & Hirschheim, 1994) ; (Lacity & Willcocks, 1998) ; (DeLooff, 1995) ; (Grover & Teng, 1993) ; (Ketler & Walstrom, 1993) <u>Theories:</u> Resource Based theory: (Barney, 1991)
The mid 90's – 2000's Decision models: outsourcing not just a hype	<u>Success factors & lessons learned:</u> (Zhu et al., 2001) ; (Lacity & Willcocks, 1998) ; (Lacity & Hirschheim, 1993) <u>Outsourcing process:</u> (Cáñez et al., 2000) ; (Fill & Visser, 2000) <u>Supply chain & general decision models:</u> (Venkatesan, 1992) ; (McIvor, 2000) ; (Brannemo, 2005) ; (Ruffo, Tuck, & Hague, 2006) <u>IT & IS decision models :</u> (DeLooff, 1995) ; (Lacity et al., 1996); (Ngwenyama & Bryson, 1999)
The 2000's - Today Risk management, service provider selection, governance & maturity, the 'sourcing continuum'	<u>Strategy setting:</u> (Zhu et al., 2001) ; (Anderson & Katz, 1998) <u>Success factors & lessons learned:</u> (Overby, 2006) ; (Willcocks & Feeny, 2006) ; (Lacity, Willcocks, & Rottman, 2008) <u>Off-shoring:</u> (Gonzales et al., 2006a) ; (Beulen et al., 2005) ; (Oza & Hall, 2005) <u>Risk management:</u> (Hoecht & Trott, 2006) ; (Sullivan & Ngwenyama, 2005) ; (Bahli & Rivard, 2005) ; (Taylor, 2007) <u>Strategic outsourcing decision frameworks:</u> (Piauchad, 2005) ; (Araz, Ozfirat, & Ozkarahan, 2007) <u>Service provider selection:</u> (Cao & Wang, 2006) ; (Sucky, 2007)

2.4 DEFINITION OF OUTSOURCING

Despite the fact that there is a sheer endless number of definitions on outsourcing available (Yang et al., 2006) a comprehensive, yet crisp, definition of outsourcing could not be found. In fact, there is not only a lack of such a definition, but in general, terminology in outsourcing seems “*far from clear*” (DeLooff, 1995, p. 281). DeLooff (1995) writes:

“Authors and practitioners use different terms for different concepts. This leads to non-comparable research results and to disagreement between clients and suppliers” (p. 281).

In an attempt to define the scope for the literature review, existing outsourcing definitions are reviewed and, if found necessary, adjusted. Grover et al. (1994) definition of outsourcing refers to the handover of all or part of an organisation’s IT to one or more external Service Provider, thus is not reflecting the subsequent delivery of services by the Service Provider to the vendor. Loh and Venkatraman (1992a) define outsourcing as “*the significant contribution by external vendors in the physical and/or human resources associated with the entire or specific components of the IT infrastructure in the user organization*” (p. 9). Although their definition is frequently adapted (Lee, Miranda, & Kim, 2004; Yang et al., 2006), and it is recognized that their definition puts an emphasis on the service delivery side as opposed to the handover of IT as Grover et al.’s definition does, Loh and Venkatraman’s definition still seems to not adequately reflect the actual sourcing continuum that organisations can choose from.

Many papers on outsourcing reduce the sourcing decision to make vs. buy (Aubert et al., 1996; Brannemo, 2005; DeBoer et al., 2006; Lee, 2006; Loh & Venkatraman, 1992a), suggesting that outsourcing is a “black or white” type issue ignoring the numerous shades of gray. For the area of supply chain management (SCM) (Brannemo, 2005; DeBoer et al., 2006; Ruffo et al., 2006), it might be acceptable to describe outsourcing as make vs. buy, although it can be assumed here that this is not the case. For IT, this is clearly not the case. It is posited here, that the term “make vs. buy” is only applicable, where it is clearly a decision between only the two options. Therefore, make vs. buy decisions and associated frameworks would be hardly ever applicable to IT. Fill and Visser (2000) acknowledge that there are a number of

options using the term continuum, which is for them a spectrum between a short-term body shopping and long-term partnership, yet they fail to describe the whole range of outsourcing options. Lacity et al. (1996) find that organisations struggle to comprehend the terms “insourcing” and “outsourcing”. They therefore promote a matrix, which classifies each of the five options (buy-in, preferred supplier, in-house, contract out, preferred contractor) into outsourcing and insourcing.

Other authors (Brooks, 2006; Pati & Desai, 2005) equally acknowledge that there is a wide range of sourcing options, however, divide them into different options. This includes, besides the outsourcing of IT to an external Service Provider at one end of the spectrum and insourcing (to retain all IT services in-house) at the other end of the spectrum, transforming an in-house IT department from a cost centre into a profit centre, migrate decentralised organisation-wide IT departments into a corporate-wide shared service centre, spinning-off the own in-house department into a new entity, or partnering (ally) with another company to create a joint venture. However, the term continuum also appears to be not a fixed term. Pati and Desai (2005) use the term continuum to describe the range of services. De Looft (1995) does not attempt to find terms for all possible options within the sourcing continuum, instead he describes outsourcing arrangements along their characteristics, including what is the deal concerned with (hardware and/or software), the ownership of the resources and dependency on the provider, the agreed resolution of disputes, and the location and the exclusiveness of the hardware, etc.

Consequently, in the interest of scoping this literature review, outsourcing shall be defined as following:

Outsourcing is the externalization of the provision of a service that was previously delivered by an in-house function, whereby the continuum of services (ranging from a discrete IT/ IS function to an end-to-end business process), and the degree of externalization (ranging from spinning-off the in-house IT department into a new entity [spin-off], partnering with a third party [ally], creating a joint venture [joint venture], to outsourcing the service provision to a 3rd party [contract out]) characterize different types of outsourcing.

As mentioned before, the challenge in finding a comprehensive, yet crisp, definition for outsourcing is equally a problem for other outsourcing related terms, for which a multitude of overlapping terms exist and which became evident during the literature review. This has caused a significant challenge for decomposing the complexity of the outsourcing decision. Therefore, and in order to provide a complete and comprehensive picture about the state of the literature, the varying definitions of outsourcing terms are presented and discussed, particularly where contradictions occur.

2.5 THE OUTSOURCING DECISION

The outsourcing decision is very complex in its nature, and the underlying decision-making process comprises a number of stages, which can last anything from several weeks to many months. From developing a sourcing strategy, and selecting a Service Provider to managing and re-evaluating sourcing decisions, the sourcing decision is not a single decision, but a series of decisions with a strong strategic value and significant impact on an organisation's success.

Over the past two decades various authors have proposed a number of frameworks attempting to understand the complexity of the outsourcing decision, either by focussing on a single stage of the decision-making process or trying to develop a complete picture of the process.

At first, a number of overarching decision frameworks were reviewed, which allowed to map all elements of the outsourcing decision.

Kremic et al. (2006) was the first framework visited, and it assisted with finding some of the basic elements of the decision, including its benefits, factors, and risks. Compare Figure 2.1.

Cáñez et al. (2000) provided another framework the literature review visited, which confirms some of the components identified by Kremic et al. (2006), adding to it the triggers, the organisation's internal and external environment, and other decision factors and performance measures. Whilst the benefits and risks would fit the decision specific context, the trigger is a fit for the process construct.

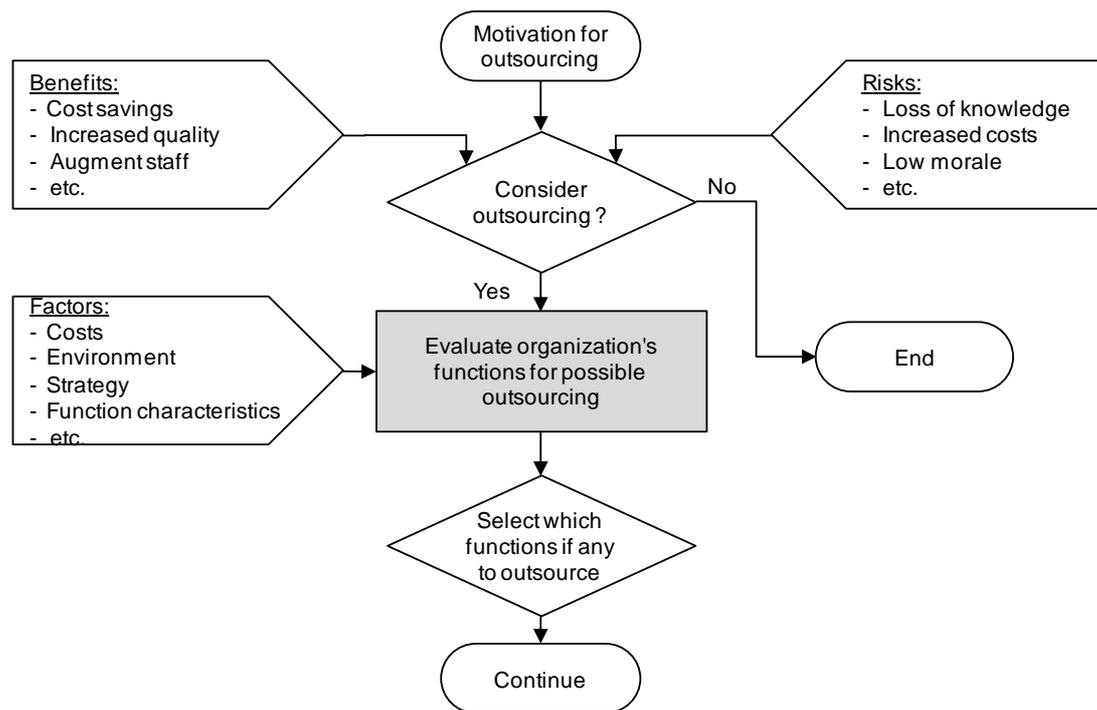


Figure 2.1 Outsourcing decision framework (Source: Kremic et al., 2006, p. 468)

Guided by these models, a more in-depth review of the ITO decision literature revealed three key streams:

- (i) One stream in the literature provides insights into the various *dimensions* of the outsourcing decision. Lee et al. (2004) identify various dimensions, which can be broadly described as the key characteristics of an outsourcing agreement, such as the duration period or number of sourcing partners. Cullen, Seddon and Willcocks (2005) further investigate these and other dimension characteristics of outsourcing arrangements, finding the underlying rationales behind the various outfits of outsourcing agreements, mapping them to dimension groups called “configurations”. Hence, the study of configurations (or dimensions of the outsourcing decision) not only emphasises that there is a great variety of sourcing options (the previously mentioned continuum from insourcing, spinning-off, to ally, or to outsource), but also provides further insights into the decision-making itself. The dimensions of the outsourcing decision are a match for the content construct of the proposed research framework.
- (ii) Another stream identified from the literature review explores *determinants* of the outsourcing decision. Koong et al. (2007) hint that there are a number of influencing factors on the decision assuming a decision needs to be tailored to

fit the specific *characteristics* of an organisation and its *environment*. Characteristics include outsourcing itself, the organisational, market, political and social characteristics, which are all shown to influence the outsourcing decision. Determinants, may, besides providing a descriptive insight into outsourcing enabling researchers to predict the outsourcing phenomenon also have the potential to yield further insights into the requirements for a decision model.

- (iii) The outsourcing literature unanimously agrees that outsourcing decision evaluations can be triggered by a number of external events. To identify what **triggers** outsourcing decisions, researchers have empirically investigated the reasons for organisations to undertake a sourcing review (Cánez et al., 2000). It was found that external pressure on an organisation forces it to consider outsourcing (Cánez et al., 2000), particularly events in the market such as the increase in price competition, which puts pressure on organisations to reduce costs and to improve internal efficiency (Apte & Sobol, 1997; Cánez et al., 2000; Ruffo et al., 2006). Further, these and other triggers, including the need to increase responsiveness, the need to increase quality and the need to reduce time to market (Ruffo et al., 2006) are all identified as triggers and lay outside the control of the organisation. These factors can be grouped as extrinsic factors. Other triggers, such as an internal skill shortage, or a lack of capacity or capabilities, lack of financial resources for further investments (all of them fall in the category of intrinsic factors) can also trigger a sourcing review (Ruffo et al., 2006). However, it is posited here that organisations are exposed to a limited number of triggers only. Frederickson (1996) argues that “*the variables that trigger a decision-making process are predetermined, and so are the possible responses*” (p. 287). Further, not only are organisations unable to perceive and respond to every market event, particularly the ones that would recommend an outsourcing, organisations are also likely to respond to decision stimuli by employing standardized procedures (Frederickson et al., 1997), which implies that due to the existence of formalized decision-making processes, organisations that had no previous exposure to outsourcing in general and/or the various options that exist may not consider them during the decision-making process. Furthermore, Lacity and Hirschheim (1994) found that managers were particularly influenced by success stories of other

organisations doing outsourcing, triggering them to also considering it. It is posited here that triggers should be divided into extrinsic and intrinsic factors. DeBoer et al. (2006) generalizes this and says that outsourcing decisions are either triggered by the recognition of a malfunctioning of an internal supplier or by a market opportunity, e.g. an appealing offer by a Service Provider.

2.5.1 Drivers

The way organisations think about outsourcing of their IT is typically driven by the need to reduce costs. Many organisations find it difficult to keep up with the latest trends in technology. Faced with such challenges, many organisations look at outsourcing to solve their problems, without knowing much about the actual benefits and risks of outsourcing. As Brannemmo (2005) points out, many organisations believe that outsourcing will help them to reduce costs, gain access to other company's competencies, and allow them to focus on their own core competencies (Brannemmo, 2005; Cao & Wang, 2006; Grover et al., 1994; Lacity & Hirschheim, 1994), inspired by the success of other organisations with outsourcing as explained by the internal influence mechanism of the diffusion theory (Costa, 2001; Loh & Venkatraman, 1992).

Not surprisingly, research undertaken by various consulting firms is confirming costs as the main driver for outsourcing. One global study, undertaken by Deloitte (2008), has found that 64% of organisations seeking to outsource primarily want to reduce costs, and 56% admitting that they outsource because they do not have the necessary skilled personnel to undertake their IT operations or to implement new technologies and therefore want to leverage the Service Provider's technology expertise. Another 49% say that the Service Provider's labour is cheaper, followed by the drive to increase customer value (37%) and to gain a competitive advantage (27%). Another study, undertaken by KPMG (2006) in the Asia region, shows similar results with 78% of the organisations indicating that they want to outsource to cut costs, and 54 % of organisations indicating that by outsourcing they want to gain access to skills, which they lack in-house. One difference, however, is that 68 % of organisations say that amongst drivers for outsourcing is to allow better focus on core competencies, which did not appear in the Deloitte survey. Yet, Brannemmo (2005) points out that many organisations are choosing outsourcing as a strategy to reduce costs, gain access

to other company's competencies, and allow them to focus on their own core competencies, without actually knowing much about outsourcing or its implications. Thus, it is found that decisions are often based on individuals trying to imitate success stories they heard of other organisations that outsourced, a phenomenon explained by the internal influence mechanism of the diffusion theory (Costa, 2001; Loh & Venkatraman, 1992).

2.5.2 Benefits

2.5.2.1 Economic Benefits

As indicated above, the way organisations think about outsourcing is typically driven by the need to reduce costs (Bhattacharya et al., 2003; Fill & Visser, 2000; Gottschalk & Solli-Saether, 2006; Lacity & Hirschheim, 1994), believing that the greater economies of scale of a Service Provider will help them to achieve cost savings (Crujssen, Borm, Fleuren, & Hamers, 2010; Gerigk, 1997; Jiang & Qureshi, 2006; Ketler & Walstrom, 1993; Kremic et al., 2006; Lacity & Hirschheim, 1994), especially by taking advantage of the greater economies of scale of a large Service Provider.

Besides reducing costs, one problem seems to be the *transition of fixed costs into variable costs* (Kremic et al., 2006; Lacity & Hirschheim, 1994). IT resources, even if these are only used during peak times or are used as reserve capacity, still requires funding as if these are being used on a permanent basis (Antonucci et al., 1998; Gerigk, 1997; Hoecht & Trott, 2006; McFarlan & Nolan, 1995). Therefore, with new technologies emerging such as on-demand scalable hardware and bandwidth and consumption-based costing, organisations have great opportunities to save on otherwise fixed costs.

Last but not least, organisations often have difficulty in planning their IT budgets, as they seldom have knowledge about upcoming technology trends and are not experienced in planning the asset lifecycle of IT Hard- and Software. Also, since it is certain that IT has reached every department in an organization, management often lose track of procured services and associated *cost control* (Gerigk, 1997; Grover et al., 1994; Lacity & Hirschheim, 1994). Internal IT departments are often asked for "nice-to-have" solutions, even if these are just requested by individual groups or,

worse, by individuals with hardly any knowledge of the likely costs incurred (McFarlan & Nolan, 1995).

2.5.2.2 *Strategy*

Not surprisingly, and as empirical research confirms, another major driver for outsourcing is strategy. Many organisations seem to struggle with costing based decisions, and research confirms that the major weakness in costing based decisions is the reliability of the cost calculations. McIvor (2000) finds that: *“The problem with basing sourcing decisions primarily on the basis of costs is further exacerbated by the fact that many companies have inadequate costing systems”* (p. 25). Similarly, Overby (2006) also finds that many IT organisations do not understand their costs and service levels, that costs are hidden and benchmarking is not available. However, Costa (2001) concludes that studies exploring outsourcing with the economic rational are too simplistic and suggests that there must be other, *“more persuasive”* (p. 216) variables.

Therefore, before considering other factors that impact upon the selection process, decision makers should consider the organisation’s long-term strategy that will mainly drive the sourcing decision. Management, human and financial resources are scarce within organisations and therefore should be used to focus on the organisation’s core business activities rather than being locked up in non-core business activities (Antonucci et al., 1998; Cao & Wang, 2006; Costa, 2001; Gerigk, 1997; Grover et al., 1994; Lacity & Hirschheim, 1994; McFarlan & Nolan, 1995).

The focus on core competencies is a frequently mentioned driver in the literature (Brooks, 2006; Busi & McIvor, 2008; Cánez et al., 2000; McIvor, 2000; Vining & Globerman, 1999).

Far too often, an organisation’s management capacity is burdened with and buried under IT-related decisions and tasks, which distract management from doing their job. Also, funds unnecessarily invested in IT assets would be better invested in the organisation’s core business activities. Such focus on core competencies also helps to reduce complexity. One sentence that captures this is: *“Focus on what gives your company its competitive edge, ... source the rest.”* (Quinn 1990, p. 58)

2.5.2.3 Technology

Many organisations also wrestle with the issue of keeping up with the latest trends in technology (Costa, 2001; Kremic et al., 2006; Loh & Venkatraman, 1992a), either because they may lack the in-house talent (Kremic et al., 2006) or because there is reluctance from top management to invest in new, updated and capital-intense technology such as manufacturing machines or IT infrastructure. Technology is evolving at such a pace that hardware that was used five years ago appears to us almost ancient, worthy only of being put into a museum. From another perspective, the hardware this is used today includes handheld computing devices combined with telephony capability and access to online devices, or the immense storage capacity of hot plug and play flash drives that can store the equivalent of several hundreds of thousands of floppy disks or zillions of punch cards, or even the sheer speed at which desktop computers can perform highly complex calculations in a few seconds, which few years ago would have taken years.

Furthermore, the release cycle of new technology has relentlessly shortened, and continues to shorten at an almost exponential rate. In that context, the following question was once asked (and is even more valid today): “*Are you sure you are not trying to improve the sword, when your competitors are currently using tanks and working on the development of laser guided weapons?*” (Heywood, 2001, p. 20). Having said that, today’s organisations can not risk not keeping up with leading edge technology. Therefore, many authors have pointed to outsourcing as a way of gaining access to leading edge technology (Antonucci et al., 1998; Costa, 2001; Gerigk, 1997; Grover et al., 1994; Lacity & Hirschheim, 1994; McFarlan & Nolan, 1995).

2.5.2.4 Human resources

Closely related to the challenge of technology, organisations also face the battle for highly skilled human resources. In today’s labour market, organisations still offer IT graduates and IT specialists top salaries. This fact is still true for the same reasons as in the year 2000, during the peak of the IT sector boom. Specialist knowledge and IT technology expertise are sacred resources within organisations, and this is increasingly true given, on the one hand, the continuously and rapidly evolving technology, and on the other, the struggle of organisations to replace legacy systems and technologies - two factors that significantly contribute to the demand for highly

skilled, but also experienced IT personnel (Gerigk, 1997). Outsourcing provides access to skilled resources (Costa, 2001; Djavanshir, 2005; Lacity & Hirschheim, 1994).

Moreover, what, for other departments, are the normal fluctuations in personnel availability occasioned by sick leave, vacation and employee initiated termination, are for IT departments a huge challenge, as they often require 24/7 service availability for service desks and stand-by technicians to monitor servers and infrastructure (Lux & Schoen, 1997). Outsourcing is therefore seen as a way to transfer the risk of staff unavailability to the Service Provider.

Last but not least, internal IT departments tend to lack professionalism, especially in terms of their documentation of internal processes and services, and associated service level management. IT departments run for decades internally may have grown into unmanageable little ‘kingdoms’ within an organisation or, if decentralised, be within separate divisions of an organization, often with no shared agreement on standards and therefore with problems of integration (Lux & Schoen, 1997). Outsourcing can not only increase the professionalism with which the services are being provided, but also lead to a cultural change in the business, which has to deal with a business entity now rather than an in-house department (Gerigk, 1997).

An overview of benefits identified in the literature review is provided in Table 2.2.

Table 2.2 Advantages / Benefits related to outsourcing
(Source: Adopted from Kremic et al., 2006)

Drivers	Reference
<u>Economic</u>	
BE1 Reduce operational costs / Exploit vendors economies of scale and scope	(Antonucci et al., 1998), (Aubert et al., 1996), (Cao & Wang, 2006), (Costa, 2001), (Djavanshir, 2005), (Gerigk, 1997), (Grover et al., 1994), (Hoecht & Trott, 2006), (Lacity & Hirschheim, 1994), (Lee, 2006), (McFarlan & Nolan, 1995)
BE2 Improve cost control, cost containment	(Gerigk, 1997), (Grover et al., 1994), (Lacity & Hirschheim, 1994)
BE3 Restructuring IT budget	(Lacity & Hirschheim, 1994)
BE4 Transfer fixed costs into variable costs / Reduce capital expenditure	(Antonucci et al., 1998), (Aubert et al., 1996), (Gerigk, 1997), (McFarlan & Nolan, 1995), (Hoecht & Trott, 2006)
BE5 Liquefy IT assets	(Antonucci et al., 1998), (Gerigk, 1997), (McFarlan & Nolan, 1995)
<u>Strategy</u>	
BS1 Focus on core competency	(Antonucci et al., 1998), (Aubert et al. 1996), (Cao & Wang, 2006), (Costa, 2001), (Gerigk, 1997), (Grover et al., 1994), (Lacity & Hirschheim, 1994), (McFarlan & Nolan, 1995)
BS2 Gaining competitive advantage	(Djavanshir, 2005)
BS3 Focus on strategic use of IT	(Grover et al., 1994)
BS4 Enabling “follow the sun” support	(Djavanshir, 2005)
BS5 Facilitate transformation of business models/ accelerates process re-engineering	(Antonucci et al., 1998), (Cao & Wang, 2006)
BS6 Duplicating success	(Costa, 2001), (Lacity & Hirschheim, 1994), (Loh & Venkatraman, 1992)
BS7 Outsourcing problems	(Aubert et al., 1996), (Lacity & Hirschheim, 1994), (McFarlan & Nolan, 1995)
<u>Technology</u>	
BT1 Immediate access to new /state of the art technologies	(Antonucci et al., 1998), (Cao & Wang, 2006), (Gerigk, 1997), (Grover et al., 1994), (Lacity & Hirschheim, 1994), (McFarlan & Nolan, 1995)
BT2 Transfer obsolescence risk / Shared risk	(Antonucci et al., 1998), (Grover et al., 1994)
BT3 Access to expertise / leverage internal IT competence	(Antonucci et al., 1998), (Cao & Wang, 2006), (Djavanshir, 2005), (Grover et al., 1994), (Lacity & Hirschheim, 1994), (McFarlan & Nolan, 1995)
BT4 Justification for investments	(Lacity & Hirschheim, 1994)
<u>Operations & Business Support</u>	
BO1 Standardization / resolve problems, such as from merger & acquisition	(Antonucci et al., 1998), (Lacity & Hirschheim, 1994)
BO2 Improve service quality	(Cao & Wang, 2006), (Costa, 2001), (Lacity & Hirschheim, 1994), (Lee, 2006), (McFarlan & Nolan, 1995)
BO3 Increase service reliability	(McFarlan & Nolan, 1995)
BO4 Increase service efficiency	(Aubert et al., 1996), (Lacity & Hirschheim, 1994), (Djavanshir, 2005)
BO5 Greater flexibility and agility	(Cao & Wang, 2006), (Djavanshir, 2005)
<u>Human Resources</u>	
BH1 Access to resources, skills & talent	(Aubert et al. 1996), (Costa, 2001), (Djavanshir, 2005), (Lacity & Hirschheim, 1994)
BH2 Free resources	(Antonucci et al., 1998)
BH3 Transfer expertise to own staff	(Gerigk, 1997), (Grover et al., 1994)
BH4 Initiate cultural change, increase professionalism and control	(Gerigk, 1997)

2.5.3 Risks

Sullivan and Ngwenyama (2005) identify seven major risk factors for outsourcing: (i) the outsourcer's lack of experience, (ii) the vendor's lack of experience, (iii) opportunistic behaviour by the vendor, (iv) vendor's financial responsibility, (v) vendor's performance monitoring, contract horizon and technological discontinuity, (vi) loss of core competencies and (vii) proprietary information. More detail on each of these risks is provided in the following Sections (2.5.3.1 – 2.5.3.4).

2.5.3.1 Economics

While it appears to be reasonable to assume that a Service Provider can achieve higher economies of scale than an in-house IT department of an organisation, Lacity and Hirschheim (1993) and Taylor (2007) argue that a Service Provider also need to make a profit, whereas an internal IT department would charge their services at cost. Therefore, it is questionable if a Service Provider would pass on savings from economies of scale to their customers. Instead, many clients experience that Service Provider offset losses from discounted services with premium charges for extra services, particularly services that were not negotiated as part of the initial agreement. Further, long-term deals that have customers locked in with fixed prices over longer contract periods (4-10 years), often fail to provide progressive price discounts Service Provider could easily offer due to the increase they typically achieve after the initial year due to a multitude of reasons (increased efficiency gains, continuous decline of IT market prices, etc.)

2.5.3.2 Strategy

When outsourcing certain non-core competencies, such as IT, organisations still face a great degree of risk in terms of service quality (reliability, availability, service performance) stemming from the dependence and reliance of the organisation on the Service Provider (Lacity & Hirschheim, 1994). Giving away a function to a Service Provider, may ultimately result in the loss of expertise, such as the knowledge of information systems, products and processes, that require long lead times to be build up when attempting to insource it after losing the knowledge during a previous outsourcing (Lacity & Hirschheim, 1994). Further, in a number of areas, including legal, political and (as previously discussed) economical, risks around an outsourcing arrangement pose not just operational or tactical challenges, but also strategic ones.

For example, an organisation's Service Provider may have access to highly confidential data of that organisation, as well as other organisations, including direct competitors. The organisation's key knowledge that are market differentiators could be under threat of copying (Djavanshir, 2005).

2.5.3.3 Technology

Moreover, technology-wise, there are also multiple risks attached to outsourcing. In particular, the dependence of the organisation on the innovation reluctance of the Service Provider, in whose interest it is to utilize resources and investment in these for as long as possible before investing into further technological innovations, are a great threat to an organisation (Lacity & Hirschheim, 1994).

2.5.3.4 Human Resources

Last but not least, there are also risk implications for the staff when outsourcing. The risk of losing jobs (Grover et al., 1994), especially under an offshore outsourcing arrangement, which is often discussed in the media, is only one of a few risks that staff face from outsourcing. Also, staff that remains with the organisation and has to work with the Service Provider's staff is often challenged by the shift in culture. Previously common procedures and relationships that go with them are suddenly broken up and new relationships need to be build (Djavanshir, 2005). Where offshore outsourcing happens, relationship building can be a painstaking exercise.

An overview of risks identified from the literature is provided in Table 2.3.

Table 2.3 Disadvantages / Risks related to outsourcing
(Source: Adopted from Kremic et al., 2006)

Disadvantages / Risks	Reference
<u>Economic</u>	
RE1 Hidden Costs / Lack of cost reduction	(Lacity & Hirschheim, 1994), (Cao & Wang, 2006)
RE1 Service provider's claims exaggerated	(Lacity & Hirschheim, 1994)
RE3 Bypassing Service Provider bureaucracy	(Lacity & Hirschheim, 1994)
RE4 Unexpected transition & management / coordination costs, e.g. for monitoring / governance	(Lacity & Hirschheim, 1994), (Grover et al., 1994)
<u>Strategy</u>	
RS1 Loss of business expertise	(Lacity & Hirschheim, 1994)
RS2 Failed expectations from service	(Lacity & Hirschheim, 1994)
RS3 Conflict Interest Factors	(Grover et al., 1994)
RS4 Security risk /Leakage	(Djavanshir, 2005)
RS5 Political risk	(Djavanshir, 2005)
RS6 Legal risk	(Djavanshir, 2005)
<u>Technology</u>	
RT1 No new technologies or too expansive	(Lacity & Hirschheim, 1994)
RT2 IT Management not "outsource-able"	
<u>Operations & Business Support</u>	
RO1 Degrading service / lack of SLAs	(Lacity & Hirschheim, 1994), (Cao & Wang, 2006)
RO2 Loss of control or flexibility	(Grover et al., 1994), (Cao & Wang, 2006)
<u>Human Resources</u>	
RH1 Threat to careers of transferred staff	(Grover et al., 1994)
RH2 Cultural risk	(Djavanshir, 2005)
RH3 No access to new staff or too expensive, instead just staff transition	(Lacity & Hirschheim, 1994)

2.5.4 Other Dimensions

The term 'dimensions' in the context of outsourcing is not clear in the literature. Ngwenyama and Bryson (1999) suggest that the information system outsourcing decision comprises of mainly two dimensions: benefits and risks, which include quality and performance, buying power, control and competency retention. Further, in the recent literature on IS ODM, the term dimensions is used as an umbrella term to summarize decision factors, including management, strategy, technology, economics and quality (compare Yang and Huang (2000), Wang and Yang (2007)). Other

authors use the term dimensions to categorize information systems (compare DeLooff, 1995).

Lee et al. (2004) propose that dimensions should be: the degree of integration, allocation of control, and performance period. Cullen et al. (2005) build on Lee et al. (2004) and combining the dimensions to a set of “coherent clusters of characteristics”, which they coin the term outsourcing configurations. Cullen et al. (2005) understand that outsourcing configurations reflect the choices made by decision makers in terms of, not just the outsourcing per se, but ultimately how decision makers envisage the organisation to achieve their goals. According to Cullen et al. (2005) configurations are described by certain attributes, including:

- *Scope*: Type of services that are provided, for which business unit and geographic location. Categories include: service scope (total, selected services), recipient (all business units, selected business units), geographic (all geographies, selected geographies).
- *Number of suppliers*: Number of suppliers that will provide the services. Options are: sole supplier, prime contractor, best-of-breed, or panel.
- *Financial scale*: Financial degree of outsourcing. From large to small scale (relative or absolute).
- *Pricing method*: either lumps sum/ fixed price, unit price (price per transaction unit), cost based (cost plus management fee)
- *Contract duration*: the period of the contract, either single term (fixed term), rollover (extendable), evergreen (infinite)
- *Resource ownership*: the party that controls or owns the resources associated with the service delivery. Resources include facilities, assets, and labour. Various ownership combinations are possible, including: infrastructure (asset and facilities), onsite (labour and assets), facility management, service and facility (facilities and labour), buy-in (assets only), facility host (facility only), labour (workforce and/or management), total (whole-of-IT) .
- *Commercial relationship*: the type of relationship the organisations and the supplier enter, including arms-length (independent parties), value-add (shared business initiatives), co-sourced (integrated resources and accountabilities), equity (related entities).

The above listed configuration attributes proposed by Cullen et al. (2005) appear sufficient to compose a comprehensive list of dimensions of an outsourcing arrangement, which can be included into the research framework. A summary of all elements involved in the outsourcing decision is provided in Table 2.4.

Table 2.4 Summary of elements of the outsourcing decision

Outsourcing decision element	Contents	Source
Scope / Options	<ul style="list-style-type: none"> • In-house (cost to profit centre transformation, shared service centre transformation) • Spin-off • Ally • Joint venture • Contracting out 	(Brooks, 2006) ; (Pati & Desai, 2005)
Process Triggers	<ul style="list-style-type: none"> • Extrinsic (increase in price competition, need to improve responsiveness, need to increase quality, need to reduce time to market) • Intrinsic (internal skill shortage, lack of capacity or capabilities, lack of financial resources for further investments) 	(Cáñez et al., 2000) ; (Ruffo et al., 2006) ; (Lacity & Hirschheim, 1994)
Dimensions	<ul style="list-style-type: none"> • Service scope (total, selected outsourcing) • Geographic scope (selected or all geographies) • Recipient scope (selected or all BUs) • Number of suppliers (sole supplier, prime contractor, best of breed, panel) • Financial scale (small to large scale) • Pricing method (lump sum, unit price, cost based) • Contract duration (single term, rollover, evergreen) • Resource ownership (infrastructure, onsite, facility management, service and facility, buy-in, facility host, labour, total) • Commercial relationship (arms-length, value-add, co-sourced, equity) 	(Cullen et al., 2005)
Determinants	<ul style="list-style-type: none"> • Decision specific characteristics • Management characteristics • Environmental characteristics • Organizational characteristics 	(Koong et al., 2007)
Decision Factors	<ul style="list-style-type: none"> • Benefits (Economic, Strategy, Technology, Operations & Business Support, Human Resources) • Risks (Economic, Strategy, Technology, Operations & Business Support, Human Resource) 	(Brannemo, 2005) ; (Costa, 2001) ; (McFarlan & Nolan, 1995)

2.6 DECISION-MAKING PROCESSES

According to Simons and Thompson (1998), the decision-making process in general: *“describes the method by which the manager organises, prioritises, and sorts the information”* (p. 7).

By comparing the various decision processes that were published in the decision-making literature, it can be seen that, although the granularity of the process description, particularly the number of steps described, has evolved and increased over the past three decades (see Table 2.5, compare Mintzberg et al. (1976) with Harrison and Pelletier (2001), Nutt (2002), and Friday-Stroud and Sutterfield (2007)), Mintzberg et al.’s (1976) three phased decision process remains valid and is a useful reference for the proposed research.

Table 2.5 Comparison of phases and steps of decision making processes described in the decision-making literature

	Mintzberg et al. (1976)	Harrison and Pelletier (2001)	Nutt (2002)	Friday-Stroud and Sutterfield (2007)
Identification	<ol style="list-style-type: none"> 1. Decision Recognition Routine 2. Diagnosis Routine 	<ol style="list-style-type: none"> 1. Setting Managerial Objectives 	<ol style="list-style-type: none"> 1. Understand Claims: collect information to understand the claims calling for action 2. Set a Direction: establish a direction that indicates the desired result 	<ol style="list-style-type: none"> 1. Set specific, measurable goals that align with the organization’s mission 2. Identification of organizational problem/issue based on synthesis of data generated from SWOT and statistical analyses. (A problem/issue exists when a gap exists between existing and desired performance) 3. Set selection criteria and standardized metrics for performance accountability and evaluation
Development Phase	<ol style="list-style-type: none"> 3. Search Routine 4. Design Routine 	<ol style="list-style-type: none"> 2. Searching for Alternatives 	<ol style="list-style-type: none"> 3. Uncover Ideas: mount a systematic search for ideas 	<ol style="list-style-type: none"> 4. Develop alternative decisions or strategies to close gap between existing and desired performance
Selection Phase	<ol style="list-style-type: none"> 5. Screen Routine 6. Evaluation Choice Routine 7. Authorization Routine 	<ol style="list-style-type: none"> 3. Comparing Evaluating Alternatives 4. Act of Choice 5. Implementing the Decision 6. Following up and Controlling 	<ol style="list-style-type: none"> 4. Evaluate ideas: evaluate these ideas, with the direction in mind, and manage social and political barriers that can block the preferred course of action during implementation 5. Implement the preferred idea 	<ol style="list-style-type: none"> 5. Compare, evaluate, and select the best decision 6. Acquire and allocate the appropriate resources 7. Execute the selected decision 8. Evaluate decision based on performance metrics, and take corrective action as necessary 9. Continuous feedback throughout the process

Elaborating on the above further, it is noted that although all models vary to some degree in the number of steps - Friday-Stroud and Sutterfield (2007) propose a process, which has evolved from the seven-step managerial decision-making process, whilst Harrison and Pelletier (2001) propose a nine-step process; and Nutt (2002) describes five general stages: collect information to understand the claims calling for action, establish a direction that indicates the desired result, mount a systematic search for ideas, evaluate these ideas, with the direction in mind, and manage social and political barriers that can block the preferred course of action during implementation - all of the decision-making processes considered here follow the three major phases proposed by Mintzberg et al. (1976) and comprise of (in general terms) the same phases, although their naming may differ:

- The identification phase
- The development phase
- The selection phase

Mintzberg et al.'s (1976) basic three phases (identification-development-selection) resemble by his own account Simon's decision process trichotomy (intelligence-design-choice), something that appears to be cemented in the decision-making research arena. However, Mintzberg et al. (1976) also observes over-simplistic, sequential decision processes. According to Mintzberg et al. (1976), processes are not sequential per se as presented in Table 2.5, but rather entered into in a number of iterations (loops).

“We find logic in delineating distinct phases of the strategic decision process, but not in postulating a simple sequential relationship between them.”
(Mintzberg et al., 1976, p. 252)

There are two explanations for this:

- the necessary refinement of decisions, that necessitate the revisitation of a decision and the various decision process phases
- the various sub-decisions that a decision is comprised of, with each sub decision requiring a separate decision process, including its own diagnosis routine, search routine, or screen routine.

Hence, the decision process described here not only accommodates for those iterations, but also reflects actual decision-making in the real world. The below dissects Mintzberg et al.'s (1976) decision phases in further detail:

2.6.1 Identification Phase

The identification phase mainly involves two routines, the decision recognition routine, and the diagnosis routine (Mintzberg et al., 1976).

According to Mintzberg et al. (1976), during the decision recognition routine, a number of stimuli impact on a manager reaching a threshold level that triggers the manager to take action. Mintzberg et al. (1976) further explains that such triggers can come from the manager recognizing opportunities, problems, and crises. Nutt (2008), says that the way a process is triggered (which is part of the decision characteristics and part of the context of the decision) impacts the process (process steps and tactics). He distinguishes between four so called process types, including '*Idea Imposition*', which equals Mintzberg et al.'s (1976) 'opportunities recognition', and '*Discovery process*', '*Emergent Opportunity process*', and '*Redevelopment process*'.

Next, once the threshold level for managers to take action has been exceeded, they will "*mobilize resources to deal with it*" (Mintzberg et al., 1976, p. 254). It is only then, that the decision process is actually triggered. Mintzberg et al. (1976) state that managers would be faced with partially ordered information and a novel situation. However, although this might be true on many occasions, he ignores that decisions, particularly around outsourcing, are regularly revisited and the strategy is subsequently adjusted, meaning that decision makers will revisit their decisions and adjust, and this is probably the case for most large to medium size organizations of which a majority would have outsourced. The objective of this routine is to formulate the issue, and set up a committee that would have oversight of the decision process.

2.6.2 Development Phase

In the development phase, decision makers try to come up with solutions to issues defined in the previous phase. The development phase is described by two routines, the search routine, and the design routine (Mintzberg et al., 1976).

In the search phase, decision makers try to find solutions, often a number of alternatives to select from later. Mintzberg et al. (1976) describes four methods of conducting the search phase, some passive, others more active.

In the design phase out of these alternatives some or all are chosen and refined into tailored solutions, often requiring a number of iterations to achieve an optimal solution. Further, decisions, such as the outsourcing decision, that are comprised of a number of sub-decisions, require separate design and search cycles for each sub-decision resulting in a stepwise refinement process.

“[...] the design of a custom-made solution is a complex, iterative procedure, which proceeds as follows: the designers may begin with a vague image of some ideal solution. They factor their decision into a sequence of nested design and search cycles, essentially working their way through a decision tree, with the decisions at each node more narrow and focused than the last.”
(Mintzberg et al., 1976, p. 256)

2.6.3 Selection Phase

The selection phase is the last phase and is comprised of three routines, the screen routine, evaluation choice routine, and authorization routine (Mintzberg et al., 1976). The screen routine involves a first consideration of all alternative solutions and results in a short listed number of alternatives for a later decision. According to Mintzberg et al. (1976), the screen routine is often also part of the search routine, as they are closely linked. The evaluation choice routine encompasses the search for evaluation criteria, and the evaluation of each alternative solution against these criteria. The final routine of this phase is the authorization routine. At this stage, authorization is sought for a recommended solution. Mintzberg et al. (1976) explains that although time is very limited for the authorization routine, it is a difficult task, and involves the following tests:

“[...] the decision must be considered in the light of other strategic decisions and overall resource constraints; outside political forces are often brought to bear on the decision at the point of authorization; and the authorizers generally lack the in-depth knowledge that the developers of the solution have.” (Mintzberg et al., 1976, p. 260)

2.6.4 The Outsourcing Decision-Making Process

In the area of Supply Chain Management outsourcing, DeBoer et al. (2006) show that the ODM follows a simple pattern:

1. Definition of core competencies and strategy;
2. Assessment of integral costs; and
3. Analysis of suppliers and competitors.

Cohen and Young (2006) present a high-level decision process, which comprises three major phases. Starting from building a sourcing strategy / sourcing action plan in the first phase, next the vendor is selected, before deciding on a governance structure and setting up the agreement in the final phase. Anderson and Katz (1998) describe a sourcing value chain that comprises of four stages. Dibbern et al. (2004), who have reviewed in their seminal paper 74 articles on the topic published between 1990 and 2000, also developed an outsourcing decision process. At the outset of their paper Dibbern et al. (2004) look at a generic decision process model provided by Simon (1960), and then map the stages of the decision process against outsourcing decision specific stages (Dibbern et al., 2004, p. 15). In this way, they determine a range of questions that the outsourcing decision process needs to address. These questions, to be addressed at the various stages of the decision-making process, align in general with both Anderson and Katz's (1998) and Dibbern et al.'s (2004) description and sequence of process stages. See Figure 2.2 below.

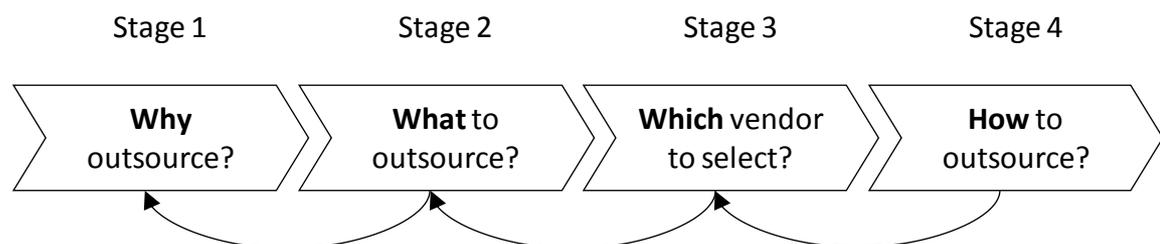


Figure 2.2 Process stages of the outsourcing decision
 (Source: Adopted from Anderson and Katz, 1998, p. 12,
 Dibbern et al., 2004, p. 15)

From a practitioner's point of view, a decision routine would look somewhat closer to Mintzberg et al.'s (1976) description of the process. This comparison is provided in Figure 2.3.

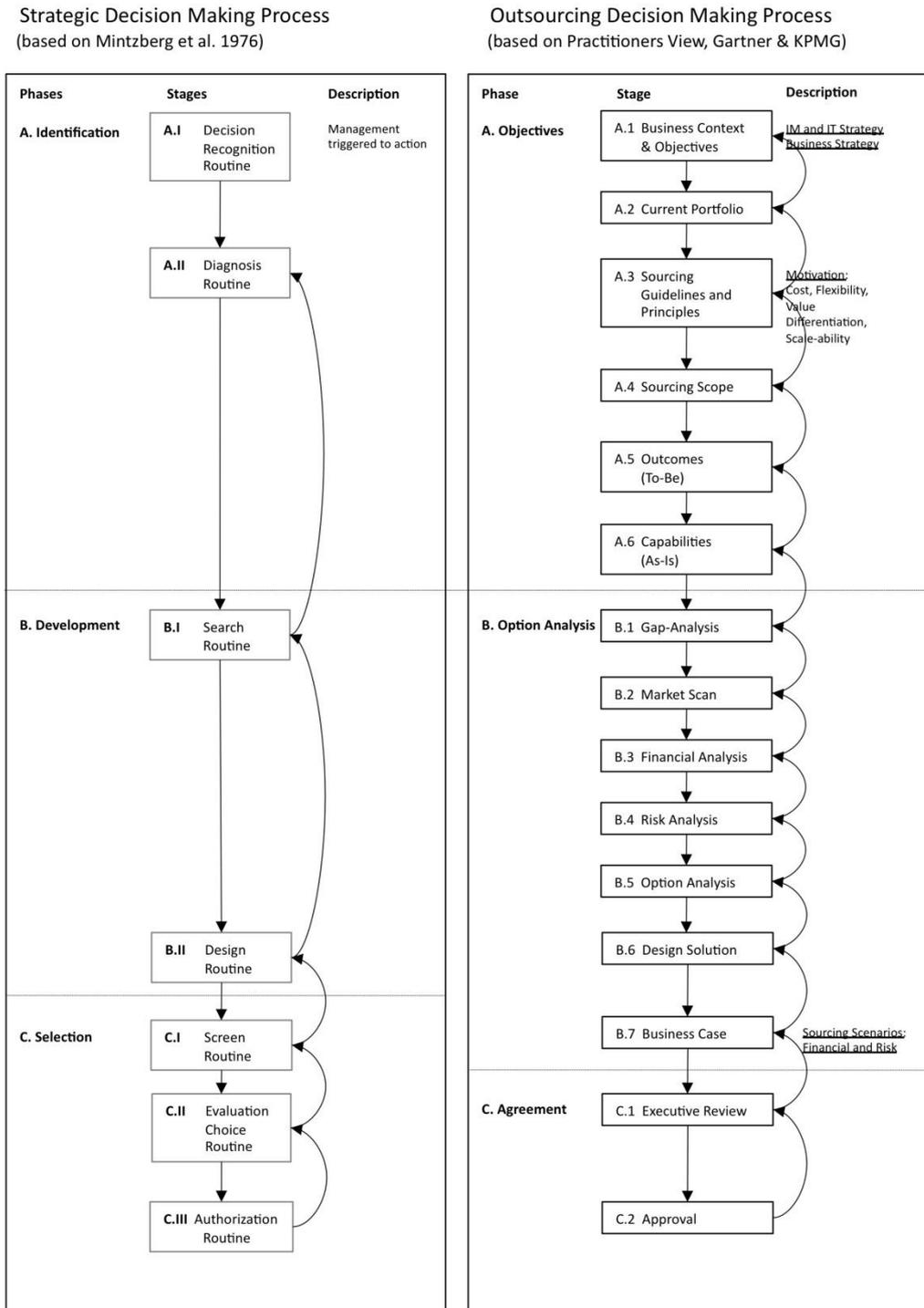


Figure 2.3 Comparison of the framework proposed by Mintzberg et al. (1976) with a practitioner’s description of the outsourcing decision-making process

2.7 OUTSOURCING DECISION MODELS AND THE NEED FOR A DECISION MODEL TAXONOMY

A review of the academic outsourcing literature reveals that there is plethora of relevant decision models and frameworks aimed at helping decision makers with their outsourcing decisions. This thesis provides a structured review of outsourcing decision models proposed in the academic literature. Based on this extensive literature review, the properties of the decision models are compared, and a taxonomy of the decision models is developed.

Taxonomies in general play an important part in research. Carper and Snizek (1980) write that *“perhaps the most important and basic in conducting any form of scientific inquiry involves the ordering, classification, or other grouping of objects or phenomena under investigation”* (p. 65). Further, according to Hunt (2002), taxonomies *“play fundamental roles in the development of a discipline in that they are the primary means for organizing phenomena into classes or groups that are amenable to systematic investigation and theory development”* (p. 222-223). By developing taxonomies, investigators get an enhanced knowledge and understanding of the phenomena under investigation, also allowing them to formulate generalizations (McCarthy, 1995). These benefits have prompted scholars to develop numerous operations management taxonomies as reviewed by McCarthy (1995).

A general decision model taxonomy (not outsourcing specific) was proposed by Thrall (1985), who classifies decision models according to the (x1) number of decision makers, (x2) number of decision criteria, and (x3) number of decisions called for. The resulting taxonomy comprises eight types of models, whereby each of the x can take either one of the values ‘1’ or ‘m’ (many). Although the taxonomy provides a starting point in considering a classification, a more outsourcing specific decision model taxonomy seems appropriate.

As stated in the introduction, the need for an outsourcing decision model taxonomy is evident from the criticism of the existing, unstructured and “embryonic” state of the academic outsourcing literature (Busi & McIvor, 2008). Brannemo (2005) writes: *“A questionnaire about sourcing decisions indicates that companies consider sourcing decisions as complex and companies tend to have a lack of models supporting the*

decision process. Thus, the need for a model supporting sourcing decisions is large” (p. 548). Similarly, Kremic et al. (2006) expresses the need for a decision model taxonomy as following: *“There is an abundance of information related to outsourcing in the literature that is waiting to be put into a more structured form for better decision support”* (p. 467). Further, the need for a new taxonomy is also echoed by De Looff (1995) who says that terminology in outsourcing seems *“far from clear”* (p. 281). He writes that *“Authors and practitioners use different terms for different concepts. This leads to non-comparable research results and to disagreement between clients and suppliers”* (p. 10). This study aims to fill this void in the academic literature, and based on the research, proposes a taxonomy for outsourcing decision models.

2.8 DEVELOPING AN OUTSOURCING DECISION MODEL TAXONOMY

In order to develop a taxonomy, this study follows the first three steps of the approach for taxonomy development by Fleishman and Mumford (1991, p. 526):

1. Specification of the domain of objects to be classified
2. Definition and measurement of the essential properties of objects lying in this domain
3. Appraisal of the relative similarity of these objects to each other.

2.8.1 Specification of the Domain of Objects (Step 1)

By definition, outsourcing decision models are used in practice to assist a decision maker with determining a decision. They often provide input into the decision at a particular stage of the decision-making process, i.e. given that there is data gathered that is available for analysis. These decision models will be examined here for their properties.

2.8.2 Definition and Measurement of the essential Properties of Objects (Step 2)

In order to investigate and classify outsourcing decision models, following questions are raised:

- What is the type of decision model?
- Which decision process stage is supported by the model?
- What outsourcing types are considered?
- Which answers can a model provide, especially what are the dimensions of the decision and what are the drivers considered?

Along these questions, the properties of the domain objects, including the decision process stage, the scope, the types and dimensions will be explored in the following section.

2.8.2.1 Support of the Decision-Making Process Stage

The first question that should be considered in regards to a classification of decision models is, for what stage of the decision process is a model applicable? Revisiting the discussion about the ODM Process provided in Section 2.6, ITO decision-making processes seem to follow a similar pattern, from deciding why and what to outsource, to whom and how to outsource. Decision models would either support one or many / all of these stages of the decision-making process.

2.8.2.2 Supported Sourcing Type / Sourcing Options

The second question that needs to be explored further is about the type of outsourcing that the model considers. In order to understand the types of outsourcing that exist, it appears necessary to review some of the definitions of outsourcing that have been provided in the academic literature. However, as per Section (2.4), which discusses the problem that there is a large number of definitions on outsourcing available (Yang & Huang, 2000), it seems impossible to provide a comprehensive list of all outsourcing types. This is especially the case since there is a constant re-invention of new outsourcing types in the market, adding to the growing complexity of outsourcing (Hirschheim, Dibbern, & Heinzl, 2008). Kakabadse and Kakabadse (2000) define outsourcing as a “*predetermined external provision with another*

enterprise for the delivery of goods/services that would previously have delivered in-house” (p. 670). Similarly, Grover and Teng (1993) and Ketler and Walstrom (1993) define outsourcing in their papers as the handover of all or part of an organisation’s internal service function (here IT) to one or more external Service Providers. None of these definitions provides any hints on outsourcing options available. Most definitions on outsourcing reduce the number of options to make vs. buy (compare papers by Aubert et al., 1996; Brannemo, 2005; DeBoer et al., 2006; Lee, 2006). It is posited here, that ‘make vs. buy’ decisions are rarely applicable in the real world and are only a subset of outsourcing, whereby an organisation is faced with a limited choice between only two sourcing options, being an in-house service delivery or a buy-in of external services. When Willcocks et al. (1995) asked, how an organisation can leverage what services are available in the market, he acknowledged that the sourcing process is not just make or buy:

“How do we use, if at all, the opportunity of what is available on the IT and services market to leverage business advantage?”(p. 61)

Other authors, such as Fill and Visser (2000), or in the ITO specific field Lacity et al. (1996), address this issue. Fill and Visser (2000) acknowledge that there are a number of sourcing options available grouping them under the term ‘continuum’ - a spectrum between the short-term body shopping and long-term partnership. Lacity et al. (1996) find that organisations struggle to comprehend the terms ‘insourcing’ and ‘outsourcing’, therefore promoting a matrix, which identifies and classifies various options (buy-in, preferred supplier, in-house, contract out, preferred contractor) into outsourcing and insourcing groupings. All of the above options are in scope for the proposed taxonomy.

2.8.2.3 Supported Decision Factors

The third property of decision models introduced here are the decision dimensions. In The recent literature on ODM refers to decision dimensions as an umbrella term to summarize decision factors such as management, strategy, technology, economics and quality (compare papers by Koong et al., 2007; Yang & Huang, 2000). Lee et al. (2004), however, propose that the dimensions of the outsourcing strategy include the degree of integration, allocation of control, and performance period, which characterize the outsourcing relationship. Cullen et al. (2005) concur with Lee et al.

(2004) and combine the dimensions to a set of “coherent clusters of characteristics”, for which they coin the term “*outsourcing configurations*” (p. 359). According to Cullen et al. (2005) configurations are described by certain attributes, including scope; number of suppliers; financial scale; pricing method; contract duration; resource ownership; and commercial relationship. For further details on the configuration attributes refer to Cullen et al. (2005), and the discussion of dimensions and decision factors provided in Section 2.5.

2.8.3 Appraisal of the relative similarity of these Objects to each other (Step 3)

Outsourcing models, here understood as a subset of the decision process, assist the decision maker following a process at a particular stage in gathering, sorting, and processing the information, and compute a sub-decision or input into a sub-decision. The literature review investigated such models and has identified three types of models:

- Decision tree models
- Heuristic models / portfolio instruments
- Scoring models

These are further discussed in the sub-sections that follow.

2.8.3.1 Decision Tree Models

Venkatesan (1992) and McIvor (2000), both examples of early outsourcing decision research, each provide a model that resembles a decision tree. Their approaches are very similar, and are based on the resource based theory view and core competencies view, dividing between strategic and non-strategic components.

Venkatesan’s (1992) model builds on the premise to retain a company’s core competencies. Non-strategic components on the other hand - being commodity components - are to be considered for outsourcing, if through an analysis the organisation’s internal capabilities to manufacture these components would be found uncompetitive compared to external sources.

McIvor’s (2000) model is divided into four stages (see Figure 2.4). In the first stage, a distinction is made between core and non-core activities. Next, the organisations’

internal capabilities delivering those activities are benchmarked against the external Service Providers' capabilities. In stage three, the total costs of providing this service internally and the costs associated with outsourcing this activity are determined, whilst in the final stage the pros and cons of outsourcing are evaluated resulting in a final recommendation.

A third, more IS specific example for a decision tree is provided by Grover and Teng (1993). Grover and Teng (1993) acknowledge their model is not 'infallible', but highlight that it provides a structured approach to the decision-making. The same can be said about all three decision tree models, which seems to be too simplistic to grasp the complexity of outsourcing decisions. Accordingly, Cánez et al. (2000) criticise these models for being "*too highly aggregated*" (p. 1314). DeBoer et al. (2006) also finds that most models have the same underlying steps, criticizing them for their lack of finding 'satisficing' solutions. For further information on the 'satisficing' ODM refer to DeBoer et al. (2006).

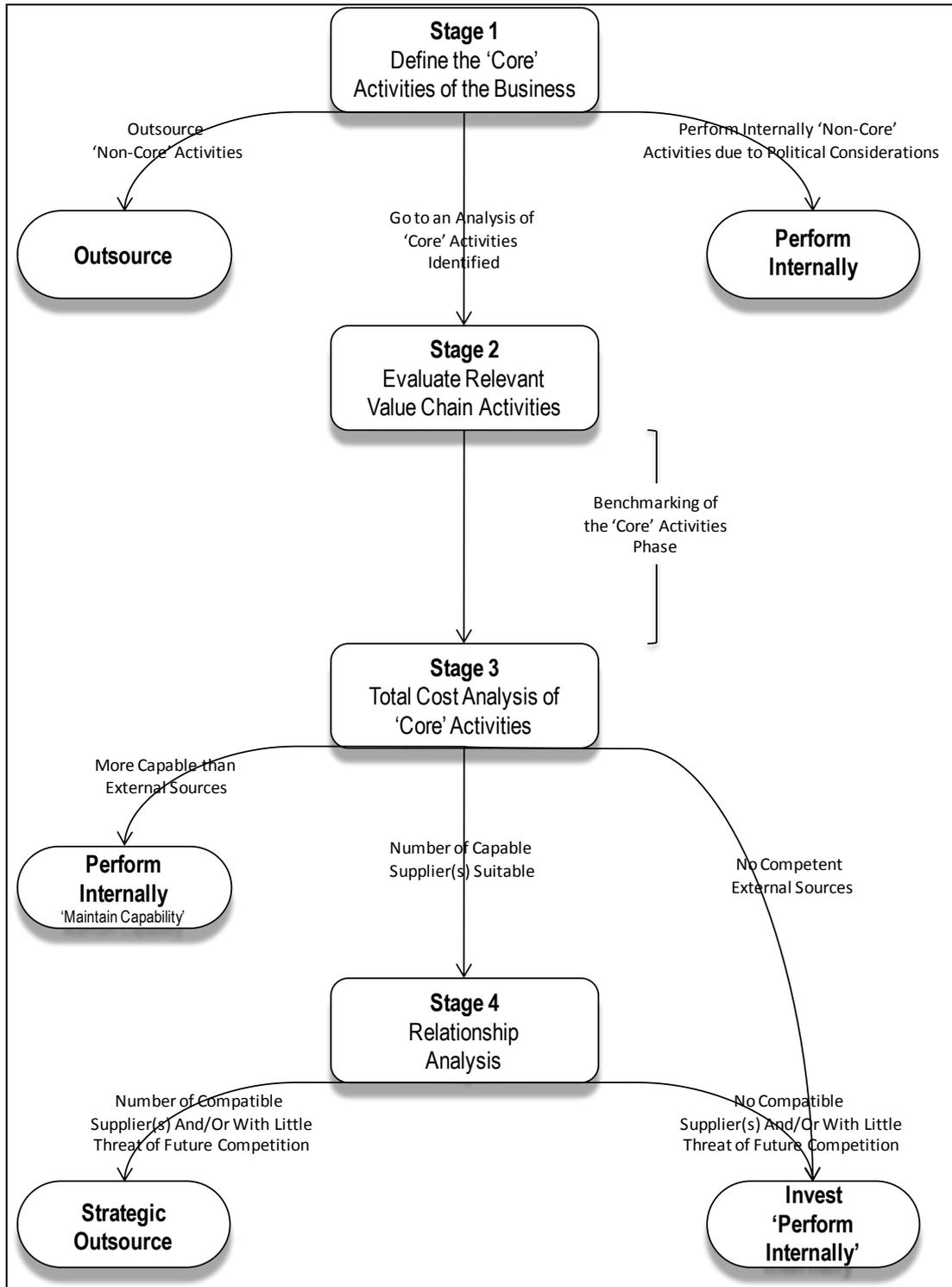


Figure 2.4 A practical framework for evaluating the outsourcing decisions
 (Source: McIvor, 2000, p. 29)

2.8.3.2 *Heuristic Models / Portfolio Instruments*

McFarlan and Nolan (1995) view the outsourcing decision from an IS perspective proposing the use of a portfolio instrument, the so called “Strategic Grid” (see Figure 2.5).

The portfolio instrument comprises of two dimensions: the current dependence on information, and the future importance of computer applications under development. By using the portfolio instrument, organisations can identify the strategic relevance of IS. Various other factors, that go beyond costs, core competency and finance are proposed, including the effort of disentanglement, the cultural fit, avoidance of integrating high tech staff in a low tech organization and others, in order to determine when, what and to whom should be outsourced. Furthermore, the mentioned need to build innovation into outsourcing, in particular having vendors taking greater responsibility, which became increasingly necessary due to the rapid evolution of technology, was in the mid 1990s a new insight.

From the mid 1990’s the use of portfolio instruments became more popular with organisations in need of easy to use heuristics. Other heuristic models/ portfolio instruments were developed, including Lacity et al. (1996).

Current Dependence on Information	High	<p>Factory - uninterrupted service-oriented information resource management</p> <p><i>Outsourcing Presumption:</i> Yes, unless company is huge and well managed</p> <p>Reasons to consider outsourcing:</p> <ul style="list-style-type: none"> •Possibilities of economies of scale for small and midsize firms. •Higher quality service and backup. •Management focus facilitated. •Fiber-optic and extended channel technologies facilitate international IT solutions. 	<p>Strategic information resource management</p> <p><i>Outsourcing Presumption:</i> No</p> <p>Reasons to consider outsourcing:</p> <ul style="list-style-type: none"> •Rescue an out-of-control internal IT unit. •Tap source of cash. •Facilitate cost flexibility. •Facilitate management of divestiture. 	
	Low	<p>Support-oriented information resource management</p> <p><i>Outsourcing Presumption:</i> Yes</p> <p>Reasons to consider outsourcing:</p> <ul style="list-style-type: none"> •Access to higher IT professionalism. •Possibility of laying off is of low priority and problematic. •Access to current IT technologies. •Risk of inappropriate IT architectures reduced. 	<p>Turnaround information resource management</p> <p><i>Outsourcing Presumption:</i> No</p> <p>Reasons to consider outsourcing:</p> <ul style="list-style-type: none"> •Internal IT unit not capable in required technologies. •Internal IT unit not capable in required project management skills. 	
		Low	Importance of Sustained, Innovative Information Resource Development	High

Figure 2.5 Strategic grid for information resource management
 (Source: McFarlan and Nolan, 1995, p. 16)

2.8.3.3 Scoring Models

Over the past five years a number of articles have been published that focus on mathematical methods to provide practical tools that are aimed at assisting managers with the outsourcing decision. The use of scoring decision models is of growing popularity which can be attributed to today’s understanding of sourcing decision as multivariate problems. Many quantitative academics believe that Quantitative Analysis can compute “*better decisions*” (Wang & Yang, 2007, p. 3699; Yang & Huang, 2000, p. 238). In this context, the analytic hierarchy process (AHP) and PROMETHEE methods appear frequently in the literature (Cao & Wang, 2006; Koong et al., 2007; Ngwenyama & Bryson, 1999; Sucky, 2007; Yang et al., 2006).

Whilst the majority of the literature uses these models for the more specific outsourcing problem of Service Provider selection (Cao & Wang, 2006; Sucky, 2007) or the decision between single or multiple Service Providers (Ngwenyama & Bryson, 1999), a few authors demonstrate the use of such a model to make an IS outsourcing decision (Wang & Yang, 2007; Yang & Huang, 2000) / Business Process outsourcing (BPO) decision (Yang et al., 2006).

2.9 DISCUSSION OF THE PROPOSED DECISION MODEL

TAXONOMY

The proposed taxonomy and resulting classification of reviewed decision models is provided in Table 2.6. A further review of selected three models exemplifying the appropriateness of the taxonomy is provided in Table 2.7, which gives a more detailed description of the typical process steps and supported decision factors of these models. By assessing the decision models in the taxonomy, following four summary observations are made:

Observation 1 - Limited process focus of the decision models. It appears that many of the decision models examined here have the same limited applicability, as they are either representing a limited perspective on the decision-making process, say by exploring the Service Provider selection stage of the decision-making process (Cao & Wang, 2006; Ngwenyama & Bryson, 1999; Sucky, 2007) or the selection of a service candidate for outsourcing (McFarlan & Nolan, 1995). Further, although the decision model proposed by Lacity et al. (1996) attempts to cover the various stages of the decision process, the highly aggregated process is certainly not sufficient to provide more than just guidelines for each stage of the process.

Observation 2 - Simplicity of the decision models. The decision models investigated here are kept relatively simple. An example of this simplicity is illustrated by the scoring model of Wang and Yang (2007). Although a comprehensive list of criteria based on drivers for outsourcing is assembled, the assumption that the quantitative process of analysing the drivers ensures that “*better decisions*” can be made leading to “*better results from outsourcing*” (Wang & Yang, 2007 , p. 3699) appears far-fetched. Outsourcing decisions seem not to be an exact science as there is an element of strategic intuition involved, and many options (shades of gray) need consideration – whilst scoring models reduce the decision to a simplistic view of the world. Scoring models typically suggest that there are only two ways - either to outsource or to in-source, although theoretically the number of sourcing options scored in the model is without limit. Furthermore, without considering the implications of the various dimensions of the decision (the length of the deal, etc.), scoring models have some clear limitations. The same criticism also applies to decision tree models.

Observation 3 - Further, more generic and holistic decision models, such as the ones provided by McIvor (2000) and Cádiz et al. (2000), lack depth, particularly when it comes to supported sourcing options. The glaring lack of supported sourcing options other than make vs. buy type decisions, is an issue where the choice includes many other options, as highlighted by Lacity et al. (1996) and Fill and Visser (2000).

Observation 4 - Moreover, decision models seem to be function specific. Many generic sourcing models disqualify for more complex sourcing decision, such as IT/IS outsourcing, as had been claimed by Pati and Desai (2005).

For practitioners, the developed taxonomy provides guidance in their search for a decision model, as well as facilitating insights about the applicability and limitations of these models. Practitioners applying a model familiar to them without having the benefit of a taxonomy fail to critically review the results from the applied model unaware of the limitations of the model. This may potentially lead to misinformed decisions.

Table 2.6 Classification of existing decision models in the taxonomy.

Classification	Process Driven Models	Sub-Decision Specific Models			
	Decision Trees	Heuristic Models / Portfolio Instruments		Scoring Models	
(1) Supported Decision Process Stage	<ul style="list-style-type: none"> • End-to-end 	<ul style="list-style-type: none"> • Strategy setting (Why and what to outsource) 	<ul style="list-style-type: none"> • Vendor Selection (Who to select) 	<ul style="list-style-type: none"> • Strategy setting (Why and what to outsource) 	<ul style="list-style-type: none"> • Vendor Selection (Who to select)
(2) Supported Sourcing Type/ Sourcing Options	<ul style="list-style-type: none"> • Make vs. Buy only 	<ul style="list-style-type: none"> • Limited due to growing complexity of portfolio with increase in number of options 	<ul style="list-style-type: none"> • Limited due to growing complexity of portfolio with increase in number of options 	<ul style="list-style-type: none"> • Not limited in number of options evaluated. 	<ul style="list-style-type: none"> • Not limited in number of options evaluated.
(3) Supported Decision Factors	<ul style="list-style-type: none"> • Limited due to the increase of tree complexity with growing number of factors 	<ul style="list-style-type: none"> • Not limited, but if more factors are considered a number of portfolio matrixes need to be created. 	<ul style="list-style-type: none"> • Not limited, but if more factors are considered a number of portfolio matrixes need to be created. 	<ul style="list-style-type: none"> • Not limited in number of factors considered 	<ul style="list-style-type: none"> • Not limited in number of factors considered
Reviewed and assigned Models	<ul style="list-style-type: none"> • Venkatesan (1992) • McIvor (2000) • Grover and Teng (1993)* 	<ul style="list-style-type: none"> • Kraljic (1983) • Olsen and Ellram (1997) • Bensaou (1999) • Hui and Tsang (2004) • McFarlan and Nolan (1995)* • Lacity et al. (1996)* 	<ul style="list-style-type: none"> • Wang and Yang (2007)* 	<ul style="list-style-type: none"> • Yang and Huang (2000)* • Ngwenyama and Bryson (1999) 	<ul style="list-style-type: none"> • Sucky (2007) • Chen, Goan and Huang (2011) • Cao and Wang (2006)

Table 2.7 Comparison of process steps of representative examples under each type of decision model.

Class	Example Decision Model	(1) Supported Decision Process Stage (Detailed Process Steps)	(2) Supported Sourcing Type / Sourcing Options	(3) Supported Decision Factors
Process Driven Models	McIvor (2000)	<p>The process covers a sourcing decision end to end, and is divided into four major phases:</p> <ul style="list-style-type: none"> • Identify core components / core services • Benchmarking internal vs. external capabilities for components/ service • Total Cost Analysis: If strategic service , consider investment to leverage internal capabilities, otherwise benchmark costs to see if outsourcing is cost effective • Relationship Analysis (best outfit) 	<ul style="list-style-type: none"> • Only Make vs. Buy 	<p>Limited number of factors:</p> <ul style="list-style-type: none"> • Core Competencies • Resources • Economics: Costs
Heuristic Models / Portfolio Instruments	Lacity et al. (1996)	<p>A number of different portfolio instruments are proposed, each only able to respond to one of the following sourcing considerations below:</p> <ul style="list-style-type: none"> • Selecting activities for outsourcing based on their contribution to business efficiency and to business competitiveness • Compare economics of vendor offering with in-house capabilities by identifying proficiency of managerial practices and achievement of in-house economies of scale for this activity • Rating the activity for its maturity and degree of integration 	<p>A number of options, including:</p> <ul style="list-style-type: none"> • Preferred Supplier • In-house • Buy-In • Contract Out • Preferred Contractor 	<p>Comprehensive number of factors:</p> <ul style="list-style-type: none"> • Core Competencies / Strategic Value • Resources • Economics: Cost / Finance • Technology <ul style="list-style-type: none"> ○ Degree of Integration ○ Degree of Maturity
Scoring Models	Chen et al. (2011)	<p>Using the AHP method (weighted factor scoring model), vendors are compared for selection.</p> <ul style="list-style-type: none"> • Construction of the hierarchy (creating of criteria) • Priority setting (comparing criteria pair wise) • Consistency calculation 	<p>In this example, only four external suppliers are compared and no consideration for in-house option given.</p>	<p>Comprehensive number of factors:</p> <ul style="list-style-type: none"> • Economics: Cost / Finance • Management • Risk • Quality

2.10 INITIAL RESEARCH QUESTION

Given the absence of a decision model taxonomy prior to this study, and the apparent confusion amongst decision makers about decision models that had been found by other researchers (compare Section 2.7), following research question is proposed:

RQ 1: How do real world decision makers approach an outsourcing decision, and what influences the adoption of decision frameworks and decision models?

2.10.1 Research Question 1.1

Section 2.8 identified three types of decision models, including decision tree models, heuristic / portfolio instruments, and scoring models. In this section, it was discussed how each type of model may be more applicable to specific process steps within the overall outsourcing decision process. Table 2.6 provided a comprehensive overview of decision models and the applicability to specific process steps. Hence, the following research question is proposed:

RQ 1.1: What decision models are used during each stage of the outsourcing decision-making process?

2.10.2 Research Question 1.2

Further, given the low adoption rate of decision models and the frequently reported high failure rate of outsourcing arrangements (compare Section 1.1.2), this study asks what impacts the adoption of decision models. In particular, what are inhibitors to the adoption of models. Some authors, including Brannemo (2005), has speculated that the low adoption rate was related to the lack of awareness of the various models. Hence, the following research question is proposed:

RQ 1.2: What are the inhibitors in adopting outsourcing decision models?

2.11 SUMMARY OF CHAPTER 2

This chapter has provided an overview of the development of the outsourcing literature from the 1960s to today (Section 2.3); has established the state of the literature on ODM and has identified key dimensions of the outsourcing decision (Section 2.5). Section 2.6 discussed process steps that decision makers go through, both according to the decision-making process literature (comparing Mintzberg et al. (1976), Harrison and Pelletier (2001), Nutt (2002), and Friday-Stroud and Sutterfield (2007)) and more specifically in the context of an outsourcing decisions (Cohen & Young, 2006) and practitioners descriptions of the outsourcing decision processes (KPMG, Gartner, etc.). From this review, it was established that there are a number of common phases and associated steps that every decision maker must go through to arrive at a decision. Next, it was discussed how the different types of outsourcing decision models accommodate the identified decision dimensions, and what phase of the decision process each decision model type could support. The resulting outsourcing decision model taxonomy was discussed and the various decision models identified from the outsourcing literature within it classified. It is a key finding of this chapter that the decision models proposed in the outsourcing literature have limited applicability to the overall decision-making process. This led to the development of the first set of research question, which are as follows:

RQ 1: How do real world decision makers approach an outsourcing decision, and what influences the adoption of decision frameworks and decision models?

RQ 1.1: What decision models are used during each stage of the outsourcing decision-making process?

RQ 1.2: What are the inhibitors in adopting outsourcing decision models?

The following chapter (Chapter 3) further discusses the literature, proposing to adopt a more strategic view of the ITO decision-making; leading to the development of a research framework that allows researching the actual decision-making process and related decision outcomes. The insights gained in this chapter, including the proposed decision model taxonomy, will assist the review of the decision-making process.

3 ADOPTING A STRATEGIC DECISION-MAKING VIEW OF THE IT OUTSOURCING DECISION

3.1 INTRODUCTION

The previous chapter discussed outsourcing decision models, and classified them in a proposed taxonomy. From the classification of decision models, it is apparent that the decision models proposed in the outsourcing literature have limited applicability to the overall decision-making process. The SDM literature, particularly literature on decision processes, is reviewed in this chapter. The objective of this chapter is to develop a research framework. This chapter has the following structure: Section 3.2 identifies relevant conceptual models from the review of the SDM literature, and provides an overview of the variables of interest, which are further detailed in the sub-sections. From this, a conceptual framework and related research questions are proposed for study (Section 3.3). Figure 3.1 below highlights the position of Chapter 3 in the overall research design.

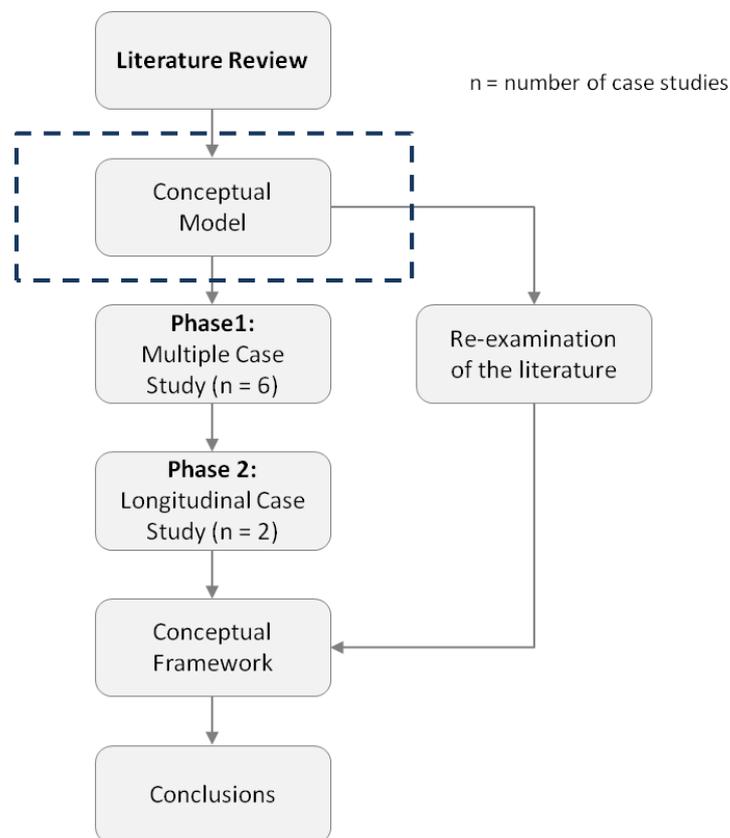


Figure 3.1 Position of Chapter 3 in the overall Research Design

3.2 VARIABLES OF INTEREST

Bell et al. (1997) proposed a strategic decision-making model (see Figure 3.2), which connects the *outcome* of a decision, the *decision-making process*, the *decision content* and *context* and forms the foundation for this research. Similar models have been proposed by other authors, including by Rajagopalan, Rasheed, Datta and Spreitzer (1997) as depicted in Figure 3.3. One problem raised by Bell et al. (1997) about their own model and also visible in Rajagopalan et al.'s (1997) model is that they are very complex. Bell et al. (1997) say that researchers are trying to put “*too many variables*” (p. 174) into the model. As a possible solution, they suggest that researchers find sets of few, powerful constructs that will assist in reducing this complexity and making each of the four elements (process, content, context and outcome) measurable. It is noted here that such simplifications, however, must be limited and none of the elements should be eliminated from the research (Nutt, 2008). Each element will be further discussed in the following sub-sections of this chapter.

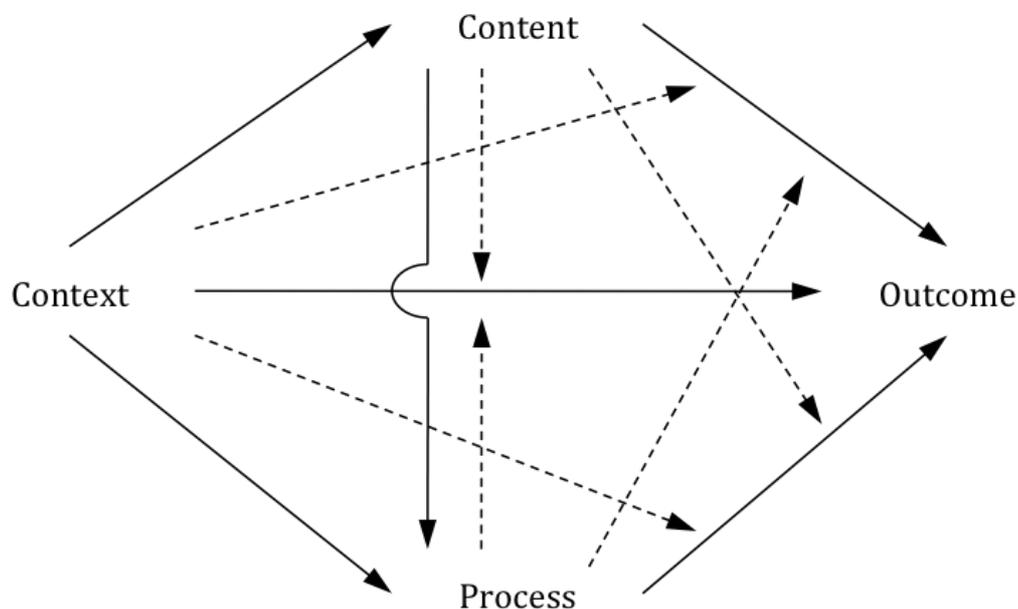


Figure 3.2 Strategic Decision-Making Model (Source: Bell et al., 1997, p. 172)

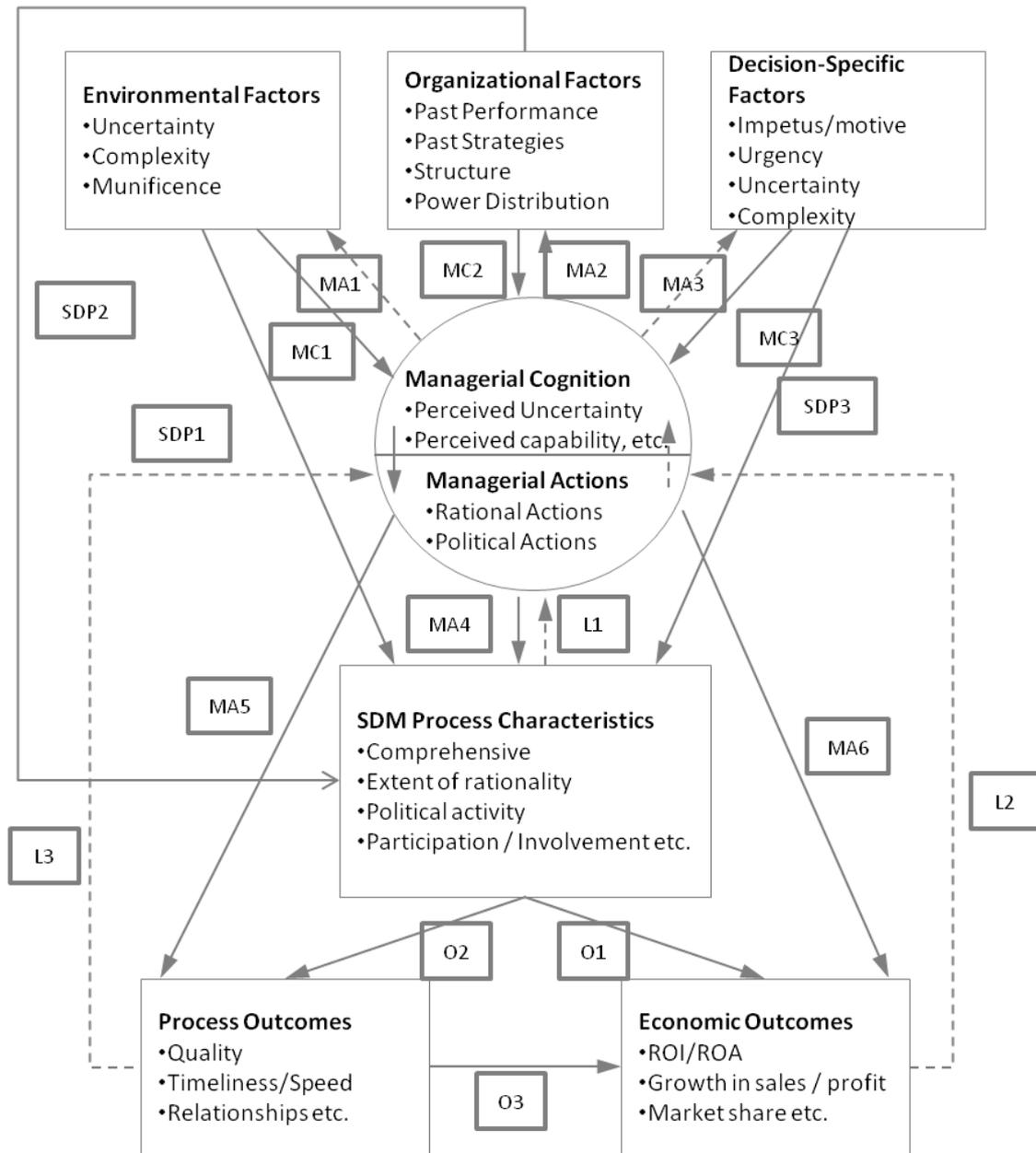


Figure 3.3 Model of SDM Processes (Source: Rajagopalan et al., 1997, p. 231)

3.2.1 Outcome

As the core element of the proposed research, outcome is measured as the outsourcing success. Willcocks et al. (1995) have suggested that outsourcing success is comprised of the following seven criteria:

- i. targeted cost savings achieved or better than anticipated;
- ii. service levels maintained or better;
- iii. higher management satisfaction;
- iv. low levels of vendor client dispute;
- v. vendor responsiveness and attention;
- vi. overall favourable comparisons between objectives and outcomes; and
- vii. decision to renew the contract

These criteria serves as a template to develop the criteria for the framework developed in this thesis that can assist in measuring outsourcing success. See Table 3.4 for applied Outcome Measures.

3.2.2 Process

Process is the second element, which is at the heart of the proposed research. Process, here the decision process, is generally defined as *“the method by which the manager organises, prioritises, and sorts the information”* (Simons & Thompson, 1998, p. 7) to reach a decision, or in the words of Bell et al. (1997): process describes *“how the choices are made”* (p. 172).

Nutt (2002) also emphasises that decision process is the sequence of activities to be followed, which according to him is in other academic literature frequently mistaken for decision process stages that describe what decision makers worry about as decisions are being made.

Further, it is noted here that strategic decisions are commonly not a single decision, as they are far too complex comprising many dimensions that require a breakdown of the overall decision into a number of sub-decisions (Witte, 1972 cited by Mintzberg et al., 1976). Such sub-decision includes questions about:

- If to outsource?
- What to outsource?

- How to outsource?
 - The selection of a service for outsourcing
 - The selection of a vendor

Some authors in the outsourcing arena, however, argue that “*the strategic decision is not ‘to outsource or not’ but rather ‘what should be outsourced and how’*” (Aubert et al., 1996, p. 62). This stands in stark contrast with recent developments, whereby major outsourcing firms reportedly overstated the sustainability of their business, such as in the case of Satyam, one of the world’s leading ITO Service Providers from India, which in turn triggered experts in the field to re-iterate the risks of jumping on the outsourcing bandwagon, but also said there was no turning back the clock in terms of the outsourcing trend (Hendry, 2009). See Table 3.2 for applied Process Measures.

3.2.3 Content

The third concept of the proposed research, content, refers to the choices a decision maker is faced with according to Bell et al. (1997), or as he paraphrases it – the “*thing’ which is to be decided*” (Bell et al., 1997, p. 169)

The decision-making literature also posited that there is subjective and objective content (Bell et al., 1997). The objective content is what the decision is about, here it is the decision to outsource, or rather the various sub-decisions that the outsourcing decision encompasses, see above.

To assess the content of the ITO decision, Cullen et al. (2005) have provided a list of outsourcing dimensions that is a very comprehensive precedent. These dimensions include:

- **Scope:** Type of services that are provided, for which business unit and geographic location. Categories include: service scope (total, selected services), recipient (all business units, selected business units), geographic (all geographies, selected geographies).
- **Number of suppliers:** Number of suppliers that will provide the services. Options are: sole supplier, prime contractor, best-of-breed, or panel.
- **Financial scale:** Financial degree of outsourcing. From large to small scale (relative or absolute).

- **Pricing method:** either lumps sum/ fixed price, unit price (price per transaction unit), cost based (cost plus management fee)
- **Contract duration:** the period of the contract, either single term (fixed term), rollover (extendable), evergreen (infinite)
- **Resource ownership:** the party that controls or owns the resources associated with the service delivery. Resources include facilities, assets, and labour. Various ownership combinations are possible, including: infrastructure (asset and facilities), onsite (labour and assets), facility management, service and facility (facilities and labour), buy-in (assets only), facility host (facility only), labour (workforce and/or management), total (whole-of-IT) .
- **Commercial relationship:** the type of relationship the organisations and the supplier enter, including arms-length (independent parties), value-add (shared business initiatives), co-sourced (integrated resources and accountabilities), equity (related entities).

The subjective content is the decision makers interpretation of the objective content (Bell et al., 1997), in other words the perception the decision makers have of the content, the way they set agendas, value positions and ethical considerations (Nutt, 2008). See Table 3.3 for applied Content Measures.

3.2.4 Context

The final element of the model is the content. For context, unlike the other three elements, has a wide range of factors suggested in the literature. In general, context is the environment in which decisions are made (Nutt, 2008). Context can be divided into internal and external context (Bell et al., 1997).

According to Bell et al. (1997), external context can be described by abstract variables, such as uncertainty, complexity, dynamism, munificence, stability, etc.; or by more concrete factors such as technology, industry, industry structure, and other concrete factors. A study on technology outsourcing by Koong et al. (2007) compares existing theories on the outsourcing decision and confirms that environment is one determinant of the outsourcing decision. Similarly, Kremic et al. (2006) also identify in their outsourcing decision framework the environment as a decision factor. Besides external variables, Bell et al. (1997) also provides variables for the internal context,

including production factors, organizational structure, decentralization, organization age and size, past strategies, past performance, etc.

In regards to the choice of context variables, Bell et al. (1997) suggests that what will be context is dependent on the decision, i.e. if the study is to investigate ITO decisions, context should include such variables as the contribution of IT to the business, the degree of technology maturity, and others. An empirical study by Willcocks et al. (1995) on the impact of the outsourcing decision's context on the success of outsourcing decisions provides a number of ITO relevant variables, including:

- The potential contribution of IT service / activity to business positioning
- Relationship of the IT activity to business strategy
- Degree of uncertainty about future business environment and business needs and hence longer term IT needs
- Degree of technology maturity associated with the activity / service
- Level of IT integration
- In-house IT capability relative to that available on the external market.

Secondly, Bell et al. (1997) also mentions that context is often perceived differently by participants as it is by the researcher itself. See Table 3.1 for the applied Context Measures.

Table 3.1 ITO Decision Context

Decision Context	Operationalisation of Constructs
Environmental Characteristics (External)	Construct is described by number of authors (Bell et al., 1997; Sharfman & Dean, 1997; Simons & Thompson, 1998). Characteristics considered for this study are: <ol style="list-style-type: none"> 1. Industry 2. Supplier market 3. Social norms
Organisational Characteristics (Internal)	Construct is referred to by Bell et al. (1997), Sharfman and Dean (1997), Simons and Thompson (1998) and Rajagopalan et al. (1997). Characteristics considered for this study include: <ol style="list-style-type: none"> 1. Past performance 2. Past strategies 3. Organisation structure 4. Organisation age and size
IT Characteristics (Internal)	ITO specific construct drawn from work by Willcocks et al.(1995). Factors include: potential contribution of IT service / activity to business positioning, <ol style="list-style-type: none"> 1. the contribution of IT to business positioning 2. the relationship of IT activity to business strategy 3. the degree of uncertainty about future IT needs 4. the degree of technology maturity 5. the level of IT integration 6. the in-house IT capability
Decision Maker Characteristics (Internal)	In order to determine the decision makers profile, the following characteristics are proposed: <ol style="list-style-type: none"> 1. Seniority (Length of tenure with the organization) 2. Maturity (Years of Experience) 3. Depth of Knowledge 4. Hierarchical Level / Authorization Level
Decision Characteristics	Construct is described by Papadakis et al. (1998), and Dean and Sharfman (1996) Suggested composite variables include: <ol style="list-style-type: none"> 1. Magnitude of impact / Importance to the firm 2. Threat / crisis 3. Decision uncertainty 4. Frequency / familiarly 5. Pressure (Contention) 6. Planned vs. ad-hoc

Table 3.2 Decision Process

Decision Process	Operationalisation of Construct
Rationality/ Comprehensiveness	<p>This construct refers to the rationality or comprehensiveness of the decision process. Similar construct (procedural rationality) is also suggested by Papadakis et al. (1998), who suggests that there is a void in the existing literature which fails to explain how to measure process comprehensiveness. It is here proposed that each case is evaluated for</p> <ol style="list-style-type: none"> 1. the completeness of the outsourcing decision process compared with suggested descriptions in the literature. 2. the rigour applied by the decision maker in following a structured, and documented decision model.
Rule Formalization	<p>Construct suggested by Papadakis et al. (1998), is measuring the degree of formalization/standardization of the process. Suggested Items include</p> <ol style="list-style-type: none"> 1. the degree to which a written procedure exists that helps guiding the process 2. the existence of a formal procedure to identify alternative ways of action 3. the degree to which formal screening procedures exist 4. the degree to which formal documents guiding the final decision exists 5. the degree to which predetermined criteria for decision evaluation exist.
Hierarchical Decentralisation	<p>This construct suggested by Papadakis et al. (1998) measures the involvement of the various hierarchy levels and departments in the different process phases.</p>
Financial Reporting	<p>This construct is suggested by Papadakis et al. (1998) and measures the degree of reporting in support of the decision-making</p>
Problem Solving Dissension	<p>This construct is suggested by Papadakis et al. (1998) and measures the degree of disagreement on the objectives, the methodology and solution</p>
Politicisation	<p>This construct is suggested by Papadakis et al. (1998) and measures the level of bipartisanship, the degree of negotiation between supporters and, the degree of resistance</p>

Table 3.3 Decision Content

Decision Content	Operationalisation of Constructs
Breadth of discovered content	This is a new measure. Here the number of dimensions discovered as compared with suggested dimensions provided by Cullen et al. (2005), who details configuration items of contracts.
Depth of rationalisation	The rationalization of choices a decision maker provides. This measure is equally derived from the work by Cullen et al. (2005).

Table 3.4 Decision Outcome

Decision Outcome	Operationalisation of Constructs
Adoption	This construct is based on Nutt et al. (2000) discussion of success measures: It divides adoption into two measures: <ol style="list-style-type: none"> 1. Long term adoption 2. Degree of adoption
Benefit Attainment / Risk Prevention	This construct is based on the outsourcing success measures suggested by Willcocks et al. (1995). Items include: <ol style="list-style-type: none"> 1. cost savings achieved or better than anticipated. 2. service levels maintained or better.
Management Satisfaction	This construct measures the overall management satisfaction with the decision. Measures are based on success criteria proposed by Willcocks et al. (1995) and include: <ol style="list-style-type: none"> 1. low levels of vendor client dispute; 2. vendor responsiveness and attention; 3. decision to renew the contract.

3.3 THE CONCEPTUAL FRAMEWORK

Whilst the framework by Bell et al. (1997) appears elegant, it poses significant challenges for theory development and testing. As discussed, Bell et al. (1997) themselves raise the concern that their model is already complex with researchers putting “*too many*” (p. 174) variables into the model. A further complication of the model is the large number of connections that provide many avenues for research requiring some limitations. Accordingly, the model from Bell et al. (1997) cannot be used in its current form, and has been simplified as suggested by Bell et al. (1997) to allow focus on the key research questions. See Figure 3.4 for the proposed conceptual framework.

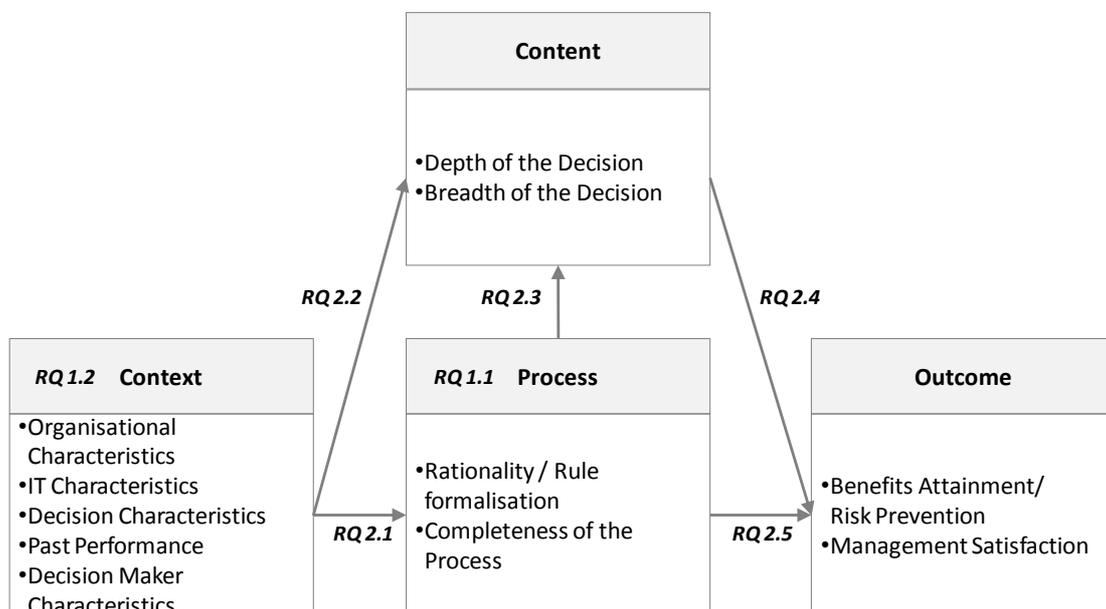


Figure 3.4 Proposed Conceptual Framework

3.3.1 Research Question 2

The aforementioned SDM literature posits that a decision-making process, which “*describes the method by which the manager organises, prioritises, and sorts the information*” (Simons & Thompson, 1998, p. 7) generally follows three distinct phases (Schwenk, 1995). (Also compare with discussion in Section 2.6.) In the initial phase, the identification phase, stakeholders set objectives, and initiate a diagnostic routine. This is followed by a development phase, in which alternatives are sought, and the design of possible solution(s) is triggered. In the selection phase, choices are evaluated, selected, and resources allocated for implementation. It follows the

implementation of the selected option and ongoing monitoring and control. The literature also establishes that processes are not sequential, but go through iterations (Mintzberg et al., 1976; Nutt, 2008).

Nutt (2008, 2011) contrasts different perspectives on measuring process efficacy, including Dean and Sharfman (1996), who classifies processes by rationality, politicisation, and flexibility; Frederickson (1986), who classifies them by comprehensiveness; and Poole and Ven (2004) who classify them by ambiguity, uncertainty or risk aversion. Drawing on a wide range of papers and different perspectives, Papadakis et al. (1998) uses different constructs, including Rationality / Comprehensiveness, Rule formalization, Hierarchical decentralisation, Lateral Communication, Financial Reporting, Politicisation, and Problem Solving Dissension.

Nutt (2008, 2011) argues that the aforementioned constructs measure process features, but not how the process is executed. He proposes an *Action Theory of Decision-Making*, which basically takes an “*if-then approach to taking action*” (Nutt, 2011, p. 12), similar to a physician’s book of symptoms. Nutt previously identified four different process types and links these to a decisions success (Nutt, 1997, 2008).

The first type he coins an *Idea Imposition* process, which Nutt (1997, 2008) identifies from his empirical process research. An *Idea Imposition* process is triggered by an opportunity. A powerful decision maker pursues an idea, often based on a ready-made solution, gathers little intelligence, lacks a motivation to look for other ideas, skips search for alternatives, and promotes defensively the idea.

The process models from the aforementioned prescriptive decision literature are subsumed under the term *Discovery* process (Nutt, 1997, 2008). Under this process, a need is identified triggering the process. Decision makers are brought together to investigate the needs and formulate requirements. A search is conducted, and identified options are evaluated. If the *Discovery* process yields an opportunity, and pressure to act results in a premature abortion of the search, the *Discovery* process gives way for an *Emergent Opportunity* process (Nutt, 2008).

Lastly, if the *Idea Imposition* process fails, a *Redevelopment Process* is entered to develop a new solution (Nutt, 2008). In his 2008 study, Nutt confirms the results from his earlier work of 1997, which is that the *Discovery* process is more likely to produce

successful outcomes than other process types. Hence, the following second key research question is proposed:

RQ 2: What is the connection between the outsourcing decision-making process and the outcome of the outsourcing decision?

3.3.2 Research Question 2.1

The literature posits that decision process is contingent on context and content (Bell et al., 1997; Nutt, 2008, 2011; Papadakis et al., 2010). The context-process relationship is explored in a large number of papers (e.g. Elbanna & Child, 2007; Nutt, 2008; Sharfman & Dean, 1997 to name a few). To recap the discussion from Section 3.2.4, context describes the environment in which decisions are made (Nutt, 2008). Context can be divided into internal and external context (Bell et al., 1997; Nutt, 2008). External context can be described in abstract terms such as uncertainty, complexity, dynamism, munificence, and stability (Bell et al., 1997; Rajagopalan et al., 1997). Some authors have proposed using more concrete characteristics, such as technology, industry, and industry structure (Bell et al., 1997; Sharfman & Dean, 1997; Simons & Thompson, 1998). Besides external variables, internal factors also need to be considered, these include production factors, organizational structure, decentralization, organization age and size, power distribution, past strategies and past performance, etc. (Bell et al., 1997; Papadakis et al., 1998; Rajagopalan et al., 1997). Further, decision characteristics (Papadakis et al., 1998; Sharfman & Dean, 1997) and decision maker characteristics (Papadakis et al., 1998) are also found to influence the decision-making process. Hence, the following research question is proposed:

RQ 2.1: What impacts the adoption of a decision-making process type?

3.3.3 Research Question 2.2

According to Bell et al. (1997), content refers to the choices a decision maker is faced with, or as he paraphrases it – “*the ‘thing’ which is to be decided*” (Bell et al., 1997, p. 169). Bell et al. (1997) posits that there is subjective and objective content. The subjective content is the decision maker’s interpretation of the objective content (Bell et al., 1997), in other words the perception the decision makers have of the content, the way decision makers set agendas, value positions and ethical considerations (Nutt

2008). Content in this study refers to the decision to outsource. To assess the comprehensiveness of the discovered content, the decision's content is compared with four dimensions of outsourcing contracts proposed by Cullen et al. (2005), including scope, financial scale, resource ownership and commercial relationship. In Bell et al.'s (1997) model, content is related to context. Hence, the following research question is proposed:

RQ 2.2: How does the context influences the discovery of outsourcing decision dimensions?

3.3.4 Research Question 2.3

According to Bell et al. (1997), besides context, content is also linked to process. Dean and Sharfman (1996) argue that different processes lead to different choices (content). Hence, the following research question is proposed:

RQ 2.3: What influence does the process have on determining the choices for each dimension of the outsourcing decision?

3.3.5 Research Question 2.4 & 2.5

Dean and Sharfman (1996) further argue that different choices lead to different outcomes. Similarly, Rajagopalan et al. (1997) also connect content and context with process impacting outcome. Bell et al. (1997) propose a strategic decision-making model that summarizes these connections. In their model (see Figure 3.2), the *outcome* of a decision is linked to *decision-making process*, *content* and *context*, whereby context impacts process and content, and content and process interacting as well. Nutt (2008) draws on the aforementioned literature and further posits that the adoption of different process types leads to different outcomes. Hence, the following two research questions are proposed:

RQ 2.4: How do the choices for each dimension of the decision impact the overall outsourcing decision outcome?

RQ 2.5: How does the outsourcing decision process itself impact the outsourcing outcome?

3.3.6 The Challenge of Measuring Outcomes

Nutt (2000) describes measuring the outcome of a decision as the assessment of the consequences of a decision. Papadakis et al. (2010) finds that the SDM literature has generally two ways of measuring outcomes, one that uses the organisation as a unit of analysis investigating the relationship between SDM processes and firm performance; the other uses the decision level as unit of analysis investigating the relationship between a decision process and its outcome. Several authors have suggested that it may be more valid to use the decision as a unit of analysis, explaining that even within the same organisation, different decision makers will adopt different decision-making processes for different decisions (Dean & Sharfman, 1996; Papadakis et al., 2010). This would make it difficult to relate a firm's performance to the process of decision-making, as it assumes all decisions within a firm would be made following the same process.

Nutt (2000) proposes a number of measures for success, questioning the value of single measures. His argument is that managers could potentially not observe downstream effects of their decisions, and further, that managers may not disclose negative decision outcomes as it may impact their evaluation. He discusses the adoption, value and time to implement a decision as possible success indicators, but cautions their interpretation. However, Nutt (2000) also admits that it is difficult to measure value, as monetary benefits of a decision are rarely provided, again, possibly for fear of embarrassment. Whilst Nutt (2000) suggests that this can be avoided by not asking decision makers directly and rather using informants, value can also be expressed as non-monetary benefits achieved, such as in the context of ITO decision an improvement of service level (Willcocks et al., 1995). Lastly, management satisfaction – or in the context of outsourcing the levels of vendor dispute, vendor responsiveness and the willingness to renew the contract may serve as indicators of success (Willcocks et al., 1995).

3.4 SUMMARY OF CHAPTER 3

This chapter has provided a discussion of the SDM literature as it applies to the overall research objective. In particular, this chapter discussed the different constructs proposed in the strategic decision-making framework by Bell et al. (1997), and compared their framework with work by other authors in the field. Each element of the framework is more closely reviewed, identifying potential measures to research strategic decision-making in the context of ITO decisions.

Finally, this chapter also discussed the development of the conceptual framework for this study and lists the research questions which have been developed based on the extensive literature review.

4 RESEARCH METHODOLOGY

4.1 INTRODUCTION

This chapter provides an overview of the research design and method that was adopted for this study. This chapter is divided as following: Section 4.2 provides an overview of the research methodologies most prevalent in the Strategic decision-making field. Section 4.3 revisits the research question, and is followed by a justification for the chosen research methodology (Section 4.4). Sections 4.5 gives an introduction of the research design, followed by Section 4.6 providing an overview of the cases selected and Section 4.7 detailing the data sources. Section 4.8 describes the data coding and analysis procedures adopted for this study. The chapter concludes with an outline of how quality of the research was assured.

4.2 EPISTEMOLOGICAL UNDERPINNINGS OF STRATEGIC DECISION-MAKING

Whilst Nutt and Wilson (2010) have described the field of SDM literature as a “hodge podge” of investigations spanning from qualitative to quantitative research, the review of the recent SDM literature indicates a dominance of quantitative research. Following the positivist paradigm, that is researchers believing that reality is objective, tangible, and quantifiable, recent SDM is dominated by a large number of surveys and statistical analysis. These methods are preferred when theory testing is pursued, as is the case in SDM, and is the result of the level of maturity achieved in the field of research, where many of the variables seem to be known allowing researchers to formulate narrow hypotheses. Some recent qualitative studies seem to be rather the exception (Nutt, 2002, 2010; Papadakis et al., 1999). The absence of qualitative research is even more so the case for the ITO literature, where rich decision-making stories have simply not been documented. Therefore, it appears necessary and useful to adopt a more reflective style and re-engage in theory building. This may require adoption of a more interpretative paradigm, especially one which supports the undertaking of rigorous qualitative research, including the adoption of methods such as action theory and case study. Hence, this study adopts a qualitative approach by using case study research to build theory.

4.3 REVISITING THE RESEARCH PROBLEM

As stated in Chapter 2, the overall objective of this research is to develop an in-depth understanding of the ODM, in particular how the different decision-making processes effect decision content, and decision content and process affect decision outcomes. Further, this study seeks to understand how different context leads to different decision-making processes.

The research questions listed below thereby act as the overarching guide for this thesis.

RQ 1: How do real world decision makers approach an outsourcing decision, and what influences the adoption of decision frameworks and decision models?

RQ 1.1: What decision models are used during each stage of the outsourcing decision-making process?

RQ 1.2: What are the inhibitors in adopting outsourcing decision models?

RQ 2: What is the connection between the outsourcing decision-making process and the outcome of the outsourcing decision?

RQ 2.1: What impacts the adoption of a decision-making process type?

RQ 2.2: How does the context influences the discovery of outsourcing decision dimensions?

RQ 2.3: What influence does the process have on determining the choices for each dimension of the outsourcing decision?

RQ 2.4: How do the choices for each dimension of the decision impact the overall outsourcing decision outcome?

RQ 2.5: How does the outsourcing decision process itself impact the outsourcing outcome?

4.4 JUSTIFICATION OF THE RESEARCH METHODOLOGY AND PARADIGM

As discussed in Chapter 3, ODM, in particular in-depth research of outsourcing decisions, has been neglected in research to date. Therefore, the research questions have been developed to support an exploratory enquiry. The study adopts a qualitative approach underpinned by an interpretive paradigm. The justification for adopting case study research will be explained first, followed by a brief review of the underlying paradigm.

A qualitative approach was chosen following evaluation of the research questions against Creswell's (2003) three criteria. Accordingly, it is possible to apply a series of questions to determine the most applicable research design, including "*the research problem, the personal experiences of the researcher and the audience*" (p. 21). Considering the research problem, qualitative research seems the best fit. Characteristically for qualitative design, the two main research questions are inductive, using open "what" and "how" questions to explore the process of decision making in an emerging design (Creswell, 2003). Although much research has been done in the area of outsourcing, as highlighted in the previous chapter, no in-depth research exist on the quality of the ODM and how it relates to the decision outcome. This study seeks to understand the variables that determine outsourcing success, before a large sample could be studied. Further, due to the novel approach to in-depth investigate ODM, the audience is likely to be more interested in the detailed analysis of the decision stories, as opposed to the testing of only few predetermined variables.

Further support for studying decision-making using a qualitative approach comes from Nutt, who suggests that amongst the various ways in which decisions can be studied "*including, role plays, simulations, experiments, surveys, and by doing field work [...] actual decisions are preferred*" (Nutt, 2000, p. 162). He further writes:

"This approach thrusts the researcher into an actual situation in which the phenomena under study can be examined without the many assumptions required to build a scenario. Fieldwork makes it possible to collect actual outcomes, avoiding misleading proxy measures that are far removed from the consequences that often stem from a decision. Finally, inferences that connect practice and outcome are possible" (p. 162)

To narrow down which qualitative strategy to adopt – a choice between experiment, survey, archival analysis, history and case study - Yin (2009) proposes three criteria, including the form of the research question, the level of participation of the researcher in the observed events, and the degree to which the research focuses on historic or contemporary events. Yin (2009) suggests that a case study is most appropriate if the research is exploratory in nature investigating a contemporary event, provided that the researchers have no participation in the decision-making. As this study seeks to understand how organisations have made their outsourcing decision, a case study approach appears to be the most appropriate strategy for this study.

Further, Yin's (2009) definition of a case study provides another advantage of adopting case study research that is it can overcome issues where context and phenomena are not clearly distinguishable:

“A case study is an empirical enquiry that (a) investigates a contemporary phenomenon in depth and within its real life context, especially when (b) the boundaries between phenomenon and context are not clearly defined.” (p. 18)

This is achieved by allowing the use of more variables than data points, allowing multiple source of evidence, and accepting input from propositions developed prior to the study.

Yin (2009) also differentiates between exploratory, explanatory and descriptive case studies. The research questions are of exploratory nature, as the research tries to fill the gap of empirical evidence on ODM and proposes a theoretical framework on decision-making within the outsourcing context. It is this purpose of building theory where scholars see case studies based on rich data fit best (Eisenhardt & Graebner, 2007). There is, however, some argument about how much of the story should be presented. Eisenhardt and Graebner (2007, p. 29) seem to favour “*better theories*” over “*better stories*”. Admitting that some readers may be disappointed not to see rich stories, they argue that the objective is theory development and that well crafted tables can be used to summarize the data. However, one of the best examples of rich stories is in fact provided by Bourgeois and Eisenhardt (1988) themselves with their seminal paper on “Strategic Decision Processes in High Velocity Environments”, where four cases are described in some detail.

Another dimension of the research design is the researchers' paradigm – the researchers' assumptions about reality (ontology) and knowledge of that reality (epistemology) as it has bearing on the gathering and analysis of the qualitative data. By conducting case study research, this study centred around the interpretive paradigm, whereby it is more important to understand what meaning people give to reality, than it is to understand how reality works (Schutt, 2012).

Nutt and Wilson (2010) revisit some of the criticism that is brought against qualitative research, in particular the claim that it is often lacking rigour.

“Once termed ‘unscientific’, the findings from such studies become suspect[...]Critics contend that qualitative research is often little more than an assembly of anecdotal evidence and personal impressions, both subject to observer bias. Qualitative research is subject to interpretive biases that reduce objectivity, lessening rigour. “(p. 19)

Whilst it is true that interpretive bias can occur, the researcher has made every attempt to reduce such bias and stay as objective as possible. Section 4.9 outlines in some detail how the researcher maintained rigour and objectivity when conducting data gathering and analysis.

4.5 RESEARCH DESIGN

The fieldwork was divided into two distinct phases. Based on a comprehensive literature review, a conceptual model was developed linking key constructs, including the context, content and process, with the decision outcome. This was followed by the first phase of field work, which comprised of six case studies. The second phase of field work was conducted more in-depth, longitudinally with two case study organisations selected from phase 1. Each phase is described in more detail in the following sections. Figure 4.1 provides an overview of the Overall Research Design.

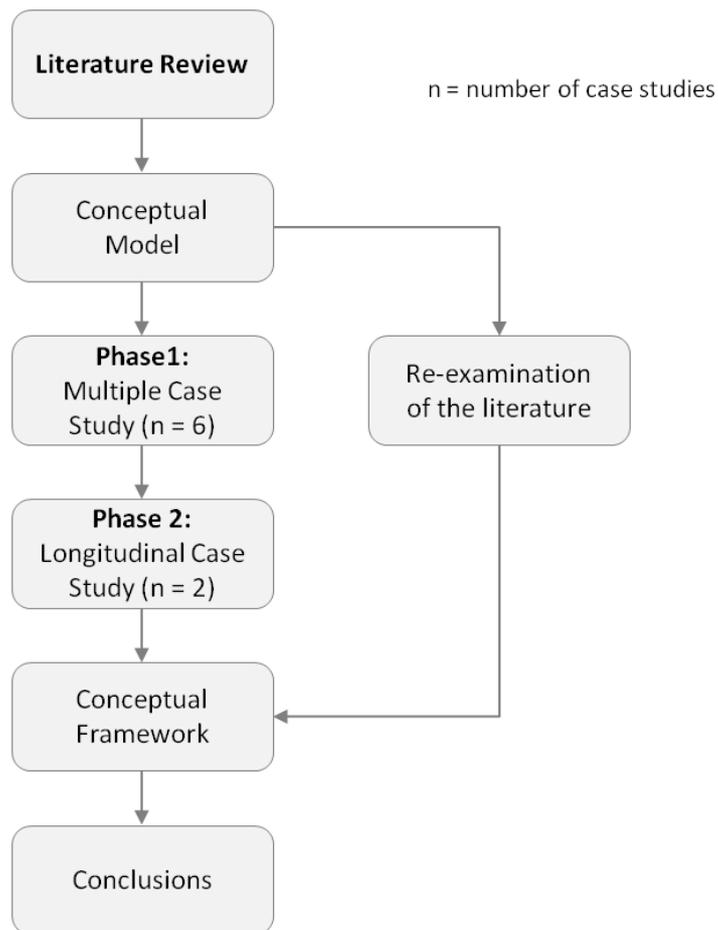


Figure 4.1 Overall Research Design

4.5.1 Phase 1: Multiple Case Study Research

The first phase of field work was a multiple case study design involving six organisations. A multiple case study design was selected as “*the evidence from multiple case studies is often considered more compelling*”, making the overall study “*more robust*” (Yin, 2009, p. 53).

The six case studies are outsourcing decisions of large Australian-based organisations. The six case studies employed a number of data sources, including interviews and document reviews. Interviewees typically belonged to senior management of the organisation and had participated in the decision-making. The purpose of these interviews was to understand the decision-making process that the organisations went through, in light of the organisational and individual context of the organisation, and also to understand the outcome of the decision.

4.5.2 Phase 2: In-depth, Longitudinal Case Research

Following the completion of research phase I, a more in-depth, longitudinal analysis of two of the case studies from phase 1 was conducted. For this, two of the organisations were approached again, to see how their decision-making had changed over time. In both companies, key personnel involved in the decision that was reviewed in research phase I had not changed, and was also involved in making the decision that followed some years later (here reviewed as research phase 2). Key personnel made themselves again available for interviews and provided relevant documentation. Besides personnel, other key context factors observed had remained relatively steady, such as the industry setting, or were easily observable, such as changes in the organisational structure or IT characteristics.

4.5.3 Unit of Analysis

The unit of analysis describes “*the ‘thing’ about which we collect information and from which we draw conclusions*” (deVaus, 2001, p. 18).

The unit of analysis of the research is the individual outsourcing decision, as opposed to the entire organization. This approach is suggested by Rajagopalan et al. (1997), who questions the effect of a single decision on the overall success of the organisation.

Having selected the decision as a unit of analysis does not mean one can ignore the organisational context. As described by deVaus (2001), it is still necessary to consider to the hypothesis relevant data beyond the actual unit of analysis, which is in this case the contextual data about the organisation and even market, in which these organisations operate.

4.6 SELECTION OF CASES

The case studies are a convenience sample. Each case study is informed by multiple data sources, including interviews and document reviews. Of the six case study organisations researched (see Table 4.1), all are large, Australian-based multinational enterprises, with the exception of FIN2, which operates in Australia only but is owned by a major Australian based, internationally operating financial institution.

Table 4.1 Case Study Organisations Overview (Phase 1)

	Case Study I INSU	Case Study II FIN1	Case Study III MANU1	Case Study IV MANU2	Case Study V FIN2	Case Study VI RESOU
Organisation						
Industry	Insurance	Financial	Heavy Industry	Chemicals	Financial	Resources
Size ⁽¹⁾	Large	Large	Large	Large	Large	Large
Staff ⁽²⁾	1,000 – 10,000	10,000-50,000	10,000 – 50,000	10,000-50,000	1,000-10,000	1,000- 10,000
Geography of receiving organisation	Australia	Australia	Australia	Australia	Australia	Australia
Decision / outsourcing model						
Decision year	2005/06	2005	2006	2005	2007	2008
Number of suppliers	Sole Source	Multisource	Prime Source	Sole Source	Sole Source	Prime Source
Onshore/ offshore	Offshore	Offshore	Onshore / Offshore	Onshore	Offshore	Onshore / Offshore
Scope of service sought	Application Development & Support	Application Development & Support	Total IT	Data Centre Services	Business Process	Total IT
Total length of deal	5 yrs +	5 yrs +	4 yrs	5 yrs	4 yrs	4 yrs

⁽¹⁾ Size determined based on Employee numbers as per [The World Bank](#) classification

⁽²⁾ Employee figures taken from annual reports and/or company websites.

The case study organisations and the decision / chosen sourcing model vary to some extent. In more detail, the decisions differed in terms of scope of service, length, value and geographic focus of the decision. These different contexts of the decisions are of interest for the research and will be further explained in the analysis of the individual case studies and summarized in the Discussions and Conclusions chapters.

The two case study organisations selected for the Phase 2 in-depth, longitudinal research are MANU2 and INSU (see Table 4.2). Again, these two cases are a convenience sample. Stakeholders in these two organisations remained connected with the researcher and were willing to participate in the second phase of the research.

Table 4.2 Case Study Organisations Overview (Phase 2)

	Case Study I INSU	Case Study IV MANU2
Decision / outsourcing model		
Decision year	2011/12	2008
Number of suppliers	Sole Source	Sole Source
Onshore/ offshore	Offshore	Onshore
Scope of service sought	Application Development & Support	Data Centre Services
Total length of deal	4 yrs +	4 yrs

4.6.1 Organisations

The case study organisations vary in industry sector, and the number of staff employed, but are similar in their overall size, and are all Australian-based. The case study organisations can be grouped by industry type as following: two financial organisations (FIN1 and FIN2), one insurance organisation (INSU), one resources organisation (RESOU), and two manufacturing organisations (MANU1 and MANU2).

INSU UK is a global health insurance group, based in the UK, and owns through INSU several health insurance brands in Australia. INSU is a major player in the Australian health insurance market and provides health insurance products that close

the medical gap between what is covered by the Australian public health care system (Medicare) and medical bills. INSU, being the second largest health insurer in Australia, plays a significant role within the global INSU group, contributing to about 30 percent of INSU's global revenue. As of 2005, INSU held about 10% of the market share in Australia, and positioned itself for growth (after the research was conducted, INSU acquired another health insurance company in 2008, which is now a brand of INSU, making INSU the second largest private health insurer in Australia).

FIN1 is one of the four largest banks in Australia. This organisation has between 10,000 - 50,000 staff and a cash earnings in 2011 of close to A\$ 5 bn. Whilst the bank is involved in some multinational business, its main focus of operation is Australia.

MANU1 is an Australian-based, large international manufacturing company that employs about 20,000 staff worldwide. The company operates in close to 20 countries with over 100 manufacturing sites.

MANU2 is an Australian-owned diversified organization offering mining services, chemicals and chemical based consumer products. It is operating globally and present in over 50 countries.

FIN2 is a subsidiary of one of the four banks in Australia, providing super and financial services to industry and individuals. As this organisation does not report earnings separately from its holding entity, size of the organisation cannot be quantified. However, with staff between 1,000-10,000 this organisation is within its industry segment a leader.

RESOU is one of the largest, diversified resources companies in the world. RESOU operates globally, and has several different divisions, with the division under investigation here being one of the fastest growing, and most profitable divisions. Yearly revenues exceed A\$ 50 bn.

4.6.2 Outsourcing Models

The term outsourcing model comprises of a number of dimensions, including what location the services were outsourced to or sourced from, the scope of services and the number of suppliers involved (as discussed in Section 2.5.4).

In relation to location, a distinction is made if services are sourced from offshore (in the Australian context this could be locations such as India or the Philippines), near shore (such as New Zealand), or onshore (Australia itself). Motivators that attracts decision makers to source services from either offshore or onshore have been discussed in the ITO literature at length (compare Antonucci et al., 1998; Beulen et al., 2005; Gonzalez et al., 2006b; Ketler & Walstrom, 1993; Peters, Laljani, & Vedala, 2006).

The scope of services can span from IT infrastructure services, such as the provision of hardware including notebooks or server, the provision and/or management of entire data centres or networks, to the development or maintenance of application services. Some organisations are sourcing their entire IT Service portfolio from a single IT Service Provider – this is called total outsourcing. Again, the ITO literature describes these services at length (compare Cullen et al., 2005; Hormozi, Hostetler, & Middleton, 2003; Lacity et al., 1996).

Another aspect of the sourcing model is the number of suppliers involved. Broadly, a distinction can be made between three categories. Under sole source arrangements, companies procure all outsourced services from a single supplier. In multi-source arrangements, companies procure from a number of suppliers. Prime source refers to an arrangement whereby the organisation is sourcing and interacting with a single entity (service integrator) that subcontracts other Service Providers to deliver part or all of the services (compare Cullen et al., 2005; Lacity et al., 1996).

4.7 DATA SOURCES

This research used multiple sources for data collection, including interviews and reviews of project documentation and press releases. These are described further in the following sub-sections.

4.7.1 Interviews

Interviews were conducted with decision makers and facilitators in each of the six organisations. Using snowballing, interview participants were also asked to refer other individuals that were involved in the decision-making at the same case study organisation. Three types of participants were sought for interviewing, being a) decision makers (directly involved in making the decision and have accountability for the outcome of the decision), b) decision facilitators (manage the decision-making process), and c) decision contributors (investigate choices). The interviews were conducted semi-structured. The objective of the interviews was to derive a better understanding of the organisations' decision-making. The interviews were conducted using pre-formulated questions that had been printed on a question guide sheet. Some questions were omitted during the interview as they would have not made any further contributions, whereas in other cases few additional, either confirming or probing questions were raised. Interviews lasted between 45 and 90 minutes. To avoid retrospect reporting bias, most cases involved interviewing multiple participants (see Table 4.3). All participants were assured of confidentiality, reducing response bias.

The participants were not informed in detail about the particular research questions, but were given a broad outline of the topic of the research and the background of the research. Prior to the interview, an initial meeting was used to provide interview participants with an outline of the research, obtain their consent, and gain a high level understanding of the decision under investigation. At the second meeting, the actual interview was conducted. At the beginning of the interview, participants were asked to provide some background on the organisation, their history and current role with the organisation and context of the decision. In the second part of the interview, participants were asked to give in their own words a brief outline of the decision process, after which the interviewer asked more specific questions about the decision process, including how the process was facilitated, the steps that were undertaken, the rigour with which the process was followed, the degree of formalization and

rationality of decision-making. This led to questions about the actual decision content that was discovered through the process. In the final phase of the interview, participants were asked about the success of the decision, with some probing questions around the achieved benefits, establishing the validity of the provided assessment. It was only after the interview that participants were asked if they could also provide documents relating to the decision-making for review by the researcher.

All participants agreed to audio recording the interview. After each interview, observations and thoughts from the particular case were summarized in notes.

Table 4.3 provides an overview of the interviews and documents collected for case study organisation during Phase 1. Table 4.4 provides an overview of the data sources for the in-depth case study in Phase 2.

Table 4.3 Phase 1 - Overview Data Collection for Case Studies

Organisation	Data Sources	Interviewees	Number of Interviews	Date Met	Length of Interview			
Case Study I - INSU	• Interviews	• CIO	1	December 2010	1 hour			
	• Business Case	• Project Manager	1	April 2012	45 mins			
Case Study II - FIN1	• Interviews	• Project Manager	3	July 2009	1 hour			
				August 2009	1 hour			
				October 2010	1.5 hours			
Case Study III - MANU1	• Interviews	• Program Director	2	March 2010	1 hour			
				April 2011	1.5 hours			
	• Project Documentation	• Project Manager	1	September 2009	2 hours			
				• External Consultant	2	February 2010	1 hour	
						February 2011	1.5 hours	
Case Study IV - RESOU	• Interviews	• Senior Executive	1	May 2010	1 hour			
				• Project Documentation	• External Consultant	1	April 2010	1 hour
							• External Consultant 2	1
Case Study V - MANU2	• Interviews	• CIO	1	August 2009	1 hour			
				• Project Documentation	• External Consultant	2	December 2009	1 hour
							February 2011	1.5 hours
Case Study VI - FIN2	• Interviews	• Director	2	September 2009	1 hour			
				February 2011	30 mins			

Table 4.4 Phase 2 - Overview Data Collection for Case Studies

Organisation	Data Sources	Interviewees	Number of Interviews	Date Met	Length of Interview
Case Study I - INSU	• Interviews	• CIO	1	January 2012	1 hour
	• Project Documentation	• Project Manager	1	May 2012	45 mins
Case Study V - MANU2	• Interviews	• CIO	2	December 2011	1 hour
	• Project Documentation			February 2012	1.5 hours
		• Project Manager	2	November 2011	30 mins
				January 2012	1 hour
		• IT Steering Committee Member	1	January 2012	1 hour

4.7.2 Document Review

Two types of documents were used for this study:

- (i) formal project documentation that was made available to the researcher, such as decision options presentations to key stakeholders such as the CEO or board, Consultant briefs and reports from organisations that were involved in the decision-making, and other such documentation, as well as
- (ii) contemporary press releases that the researcher collected from newsletters and by signing up to industry organisations such as ZDNET, International Association of Outsourcing Professionals, and Factiva.

The analysis of these documents allowed the research to review findings from the interviews, and prepare additional questions for the investigation. Documents were carefully reviewed in light of their purpose – at times some of these documents read like a sales prospect as opposed to a well informed business case.

4.7.3 Transcription

Of 18 interviews in Phase 1, 11 were successfully digitally recorded, stored for transcription and transcribed. Seven of the interviews were too poor in sound quality prohibiting them from being transcribed. The program used to transcribe the cases was Adobe Soundbooth (www.Adobe.com/Products/Soundbooth/). The Software is easy to use, and allows professional noise filtering eliminating ambient sounds, which was important as some interviews had been recorded in noisy environments such as restaurants or cafés. The files were stored on a web storage service (<http://www.Megupload.com> and later www.Dropbox.com) due to their size (some files exceeded 1GB in size), where a professional transcription service agent could access the files for transcription. Transcriptions were conducted within 48 hours of the interview, and returned in Word format via email. After receiving the transcripts, they were checked for errors. Transcripts were saved on the local hard drive and also stored in Dropbox.com as a backup. Transcripts were then read and coded in Word. For some cases, observations and notes were taken during and immediately after the interview and added to the folder with the transcripts.

4.8 CASE STUDY ANALYSIS PROCEDURE

For coding, all transcripts were printed. Before any analysis was conducted, interview participants were classified as either being a decision maker, decision facilitator, or a decision contributor. The classification was captured in a file note on the case protocol, which also contained the minutes and observations from the meeting with the research participant. In some cases, these minutes were extensive.

The case studies were manually analysed. Literature on research design and analysis suggests researchers to use N-Vivo or other, similar computer assisted qualitative data analysis software packages, describing that these hold several advantages over manual analysis (Gibbs, 2007). However, due to the small sample size (18 interviews, each between 45 minutes to 1.5 hour length) it was not deemed necessary to use N-Vivo or another, similar software package for data analysis.

To commence with data analysis, the researcher can choose from a number of approaches, subject to their research objective. Crabtree and Miller (1999) differentiate three main types of strategies for data interpretation, including a grounded hermeneutic editing approach, a template organizing style (codes and code manuals), and finally immersion/crystallization. Exploratory, inductive approaches commence with data gathering, followed by careful reading of the texts whilst trying to inductively coming up with codes (Gibbs, 2007). Codes or themes are basically patterns found in the data that can help describing, organising and/or interpreting aspects of a phenomenon under study.

When the research objective is to build theory, the grounded hermeneutic editing approach and immersion/crystallization appears to be the preferred approaches. This study, which also has the objective to build theory, uses a hybrid of both deductive and inductive approaches - the template analysis and immersion/ crystallization.

4.8.1 Template Analysis

Whilst it is true that inductive approaches assume that themes emerge from the text, the qualitative literature confirms that many researchers seek guidance for coding from pre-existing ideas and frameworks (Gibbs, 2007), and this seems particularly unavoidable in a field as complex and as well researched as SDM. Eisenhardt (1989)

argues that a priori constructs have several advantages that can be exploited, even when building theory, including improved accuracy of measurements:

“A priori specification of constructs can also help to shape the initial design of theory building research. Although this type of specification is not common in theory building studies to date, it is valuable because it permits researchers to measure constructs more accurately.” (p. 536)

Further, they also argue that a priori constructs allow the researcher to more firmly ground their research:

“If these constructs prove important, as the study progresses, then the researcher have a firmer grounding for the emergent theory.” (Eisenhardt, 1989, p. 536)

In summary, template analysis basically means approaching the qualitative data deductively with a ‘start-list’ of themes or categories that are anticipated from the outset; here from the SDM literature.

The a priori constructs were organised in a list, that is often also called a code list, code book, template, together with their definitions and rules for application (Gibbs, 2007). For an overview of the coding list see Table 4.5.

On first reading of the transcript a general understanding of the case study was established, and the transcript was compared with notes taken during the meeting. All notes from this first reading were captured in the case protocol.

On second and third reading of the transcript, text passages were highlighted that could be related to the broad categories from the research framework, and their relationship to the research questions. Information related to context was marked up in yellow, information relating to process was marked up in blue, information relating to content was marked up in purple, and information relating to outcome was marked up in green. Besides marking up the text passages, summary notes identifying themes were added to side of the text.

Table 4.5 Coding of Measures / Items

Dimension	Measure	Item	High	Medium	Low
Context	IT Characteristics	Contribution of IT to business positioning	Critical competency	Only critical in few areas	Non critical support function
		Relationship of IT activity to business strategy	Key element of business strategy	Business strategy relies on IT	Business strategy not considering IT side
		Degree of certainty about future IT needs	Demand and architecture planned	Demand and architecture somewhat planned	Demand and architecture not planned
		Degree of technology maturity	Mature IT function	Developing IT function	
		Level of IT integration			
		In-house IT capability	Critical competency	Average competency	No competency
	Organization Characteristics	Industry	N/A	N/A	N/A
		Size of the organisations	N/A	N/A	N/A
		IT budget allocated	N/A	N/A	N/A
		Age of the organization	N/A	N/A	N/A
Past strategies		N/A	N/A	N/A	
Past performance		N/A	N/A	N/A	
Decision Maker Characteristics	Seniority (length of tenure with the organization)	Some years	Up to a year	New	
	Maturity (years of experience)	Many years experience	Some previous experience	No experience	
	Depth of vertical knowledge	Deep	Some	None	
	Depth of horizontal knowledge	Deep	Some	None	
	Hierarchical level / authorization level	All centralised, high level of discretion	Some centralisation with discretion	Decentralised, limited or no discretion	
Decision Characteristics	Trigger	N/A	N/A	N/A	
	Driver	N/A	N/A	N/A	
Process	Rationality/ Comprehensiveness	Completeness of the outsourcing decision process compared with suggested steps in the reviewed literature	Complete	Partly complete	Incomplete
		Rigour applied by the decision maker in following a structured and documented decision model.	Rigorous	Some rigour	No rigour
	Rule Formalization	Degree to which a written procedure exists that helps guiding the process	All documented	Limited documentation	No documentation

Dimension	Measure	Item	High	Medium	Low
		Existence of a formal procedure to identify alternative ways of action	Formalized	Some formalization	No formalization
		Degree to which formal screening procedures exist	Formalized	Some formalization	No formalization
		Degree to which formal documents guiding the final decision exists	Formalized	Some formalization	No formalization
		Degree to which predetermined criteria for decision evaluation exist.	Formalized	Some formalization	No formalization
Content	Number of Dimensions Considered		Five – seven	Three - four	One – two
	Rationalisation of Choices under each Dimension		Clear and full rationalisation available	limited rationalisation	No or limited rationalisation
Outcome	Benefit Attainment / Risk Prevention	Cost savings	Cost savings achieved or better than anticipated	Costs contained, no significant increases	Higher costs
		Service level	Service levels maintained or better	Service levels maintained	Service levels worsened
		Overall objectives	Overall favourable comparisons between objectives and outcomes	Not all objectives not achieved	None or too few objectives achieved
	Management Satisfaction	Disputes	Low levels of vendor client dispute	Some contention between the provider and client	High levels of contention, or even disputes
		Renewal	Decision to renew the contract	Contract not renewed, but included vendor when putting contract to market	Vendor not asked to resubmit when going to market

4.8.2 Immersion / Crystallisation

Additional codes were derived by immersion/crystallisation (Crabtree & Miller, 1999) through further in-depth reading of the transcripts. This is a deductive leading to an inductive research approach similar to what Waring and Wainwright (2008) have described. Here, additional codes are emerging from the data.

To identify additional themes or codes from the data, several techniques can be applied. Depending on the type of data, some techniques are preferred over others. Ryan and Bernard (2003) suggest for rich, narrative data (as was collected through the interview transcripts), that *Repetition* (topics that repeatedly occur), *Transitions* (shifts, such as pauses or change in tone when speaking), *Similarities & Differences* (ongoing comparisons of pairs of expressions), and *Cutting & Sorting* (selecting quotes that seem important) would be preferred or easier to achieve (see Figure 4.2).

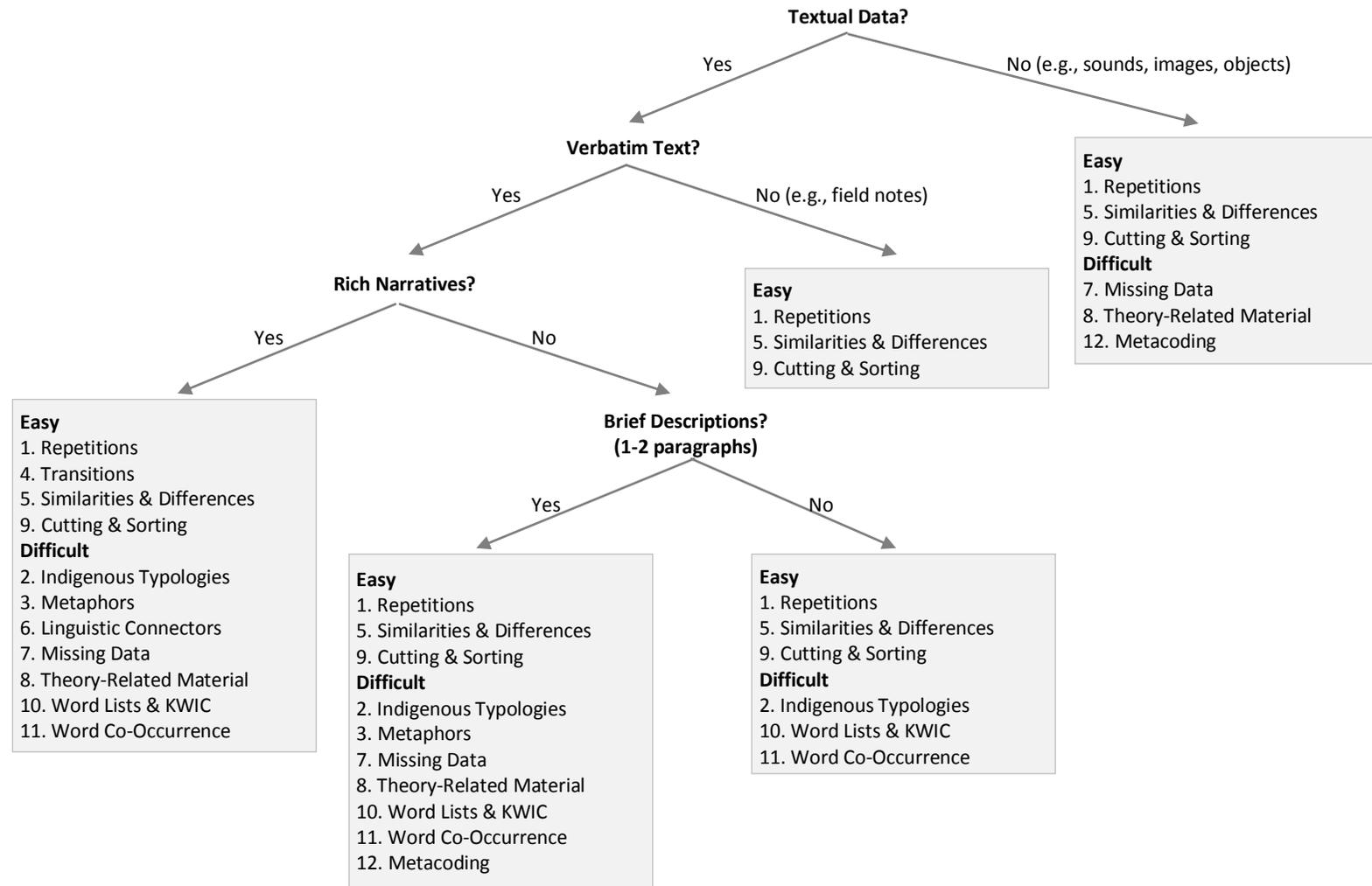


Figure 4.2 Selecting among Theme-Identification Techniques (Source: Ryan & Bernard, 2003)

4.8.3 Within Case Study Analysis and Cross Case Analysis

The within case analysis commenced by comparing the empirical evidence with the research conclusions drawn from the initial review of findings from the first case study. It involved a detailed write up of the case study. This process was replicated for every case study, with the aim to familiarise the researcher with each case as a stand-alone entity. Through this process, the unique pattern of each case was emerging, before any cross case patterns were considered. Every case provided input into the overall development of the research conclusions.

The cross-case analysis commenced after the first three cases had been analysed. Patterns were compared with research conclusions drawn from the cases.

4.9 ASSURING THE QUALITY AND RIGOUR OF CASE STUDY RESEARCH

As discussed earlier, qualitative research has received much criticism, and has been labelled as not being “*scientific*” and being “*subject to interpretive biases that reduce objectivity, lessening rigour.*” (Nutt & Wilson, 2010, p. 19)

In response to these often cited criticisms of qualitative research, criteria were developed to assess the quality of the research. Yin (2009) proposes that qualitative research (here case studies) must pass the same four tests (trustworthiness, credibility, conformability and data dependability) that have been proposed by the US Government Accountability Office in 1990 for all research design.

These criteria also allowed for development of tactics to address these concerns and overcome issues with qualitative research. Yin (2009) also points out that several of these tactics should be applied throughout the research, as the case study design may evolve throughout the conduct of the case study research. Table 4.6 provides an overview of these tactics, including which ones and how these have been employed by this study.

Table 4.6 Tactics employed to assure quality of the research
(Source: Adapted from Yin, 2009)

Test	Description	Tactics	Tactics employed by this study
Construct Validity	Selecting appropriate operational measures for concepts being studied	<ul style="list-style-type: none"> • Use multiple sources of evidence • Establish chain of evidence • Have key informants review draft case study report 	<ul style="list-style-type: none"> • Presentation of results to participants and wider academic audience at two conferences (after phase 1 field work) • Draft case study reports shared with research participants • Triangulation from multiple data sources
Internal Validity	Eliminating rival explanations to reduce ambiguity in findings	<ul style="list-style-type: none"> • Do pattern matching • Do explanation building • Address rival explanations • Use logic models 	<ul style="list-style-type: none"> • Conducted series of iterations revising initial research conclusions
External Validity	Generalizability of findings / replication logic	<ul style="list-style-type: none"> • Use replication logic in multiple case studies 	<ul style="list-style-type: none"> • Multiple case study design with theoretical and literal replication
Reliability	Extend to which results can be repeated with same measuring instrument	<ul style="list-style-type: none"> • Use case study protocol • Develop case study database 	<ul style="list-style-type: none"> • Case study protocol develop as part of Research Proposal

4.9.1 Construct Validity

Construct Validity refers to the identification of the appropriate operational measure to match the theoretical expectations (deVaus, 2001; Yin, 2009). Yin (2009) further suggests that construct validity is difficult to achieve in case study research, as it is directly related to the subjectiveness of the researcher in relation to the data collection. Yin (2009) suggests three tactics to ensure construct validity, including using multiple sources of evidence, establishing a chain of evidence, and having key informants reviewing the draft case study report.

However, deVaus (2001) points out that despite achieving expectations, which indicates having achieved validity (the correctness of the measures), the underlying theory that matches expectations with selected measures may not have been correct. DeVaus (2001) suggests that only if measures pass all three tests (Internal Validity, External Validity and Construct Validity), it is more likely that validity has been achieved.

To improve construct validity, the researcher adopted a number of tactics. First, the research was conducted in two distinct phases, after phase 1 field work results were discussed with some selected participants before phase 2 of the research commenced. Findings from Phase 1 were also summarized in a paper that was socialised with research participants, and presented at the Academy of Management conference in Boston (USA) and Australian and New Zealand Academy of Management Symposium held in Melbourne (Australia). Secondly, each interview was transcribed and/or summarized and returned to interviewees for checking and to verify that results had been interpreted correctly. Thirdly, multiple data sources were used, including interviews and documentation analysis.

4.9.2 Internal Validity

According to deVaus (2001) Internal Validity refers to the “*extend to which we can draw unambiguous conclusions from the results*” (p. 28). To do this, the researcher must be able to eliminate alternative explanations for the findings. However, Yin (2009) points out that Internal Validity is predominantly relevant for explanatory case studies, where the researcher tries to identify causal relationships. On the other hand, Yin (2009) also acknowledges that even other case study research, such as explorative case studies, are drawing inferences from their findings, hence face the problem of internal validity. DeVaus (2001) explains that internal validity is achieved through structuring the research design so that it allows eliminating alternative explanations, whilst acknowledging that ambiguity can never be fully eliminated. Yin proposes a number of tactics that help to reduce the ambiguity, including conducting pattern matching, explanation building, addressing rival explanations and use of logic models. To address the internal validity challenge faced in this study, the researcher adopted a number of the tactics suggested by Yin (2009). He states that explanation building is a special type of pattern matching, whereby the data is analysed through

building an explanation about the case. This explanation building is iterative in nature, with an initial theoretical explanation or proposition being reviewed and compared with an initial case, and then being revised and again compared with a second and third case until the pattern appears to fully explain the phenomena.

In this research program, a first case study was conducted at FIN1 early in July 2009, after which the theoretical propositions were compared with the findings from the case study. Two further case studies (MANU2, FIN2) were conducted in September 2009, after which the initial propositions were revised into research conclusions. After another set of case studies between February 2010 to December 2010, initial research conclusions were finalised and summarized for review by participants, and drafted and presented at two Academic Conferences in mid 2012.

4.9.3 External Validity

External validity refers to the problem of case study findings from one study being applicable to other case studies. According to Yin (2009), to test for external validity, a theory must be tested by replicating findings in a second or third case study. This so called replication logic does not require every condition, in particular unimportant conditions, to stay exactly the same as it may indicate the robustness of the theory. Replication may take either of two forms, a literal replication where similar results are achieved, or a theoretical replication, whereby contrasting results are achieved that have been anticipated. A prerequisite for replication is that a rich, theoretical framework has been developed that clearly defines the conditions under which these literal and theoretical replications occur.

4.9.4 Reliability

According to Jupp (2006), reliability refers to the extent to which a measuring instrument, for example a test to measure intelligence, gives consistent results. Yin (2009) suggests two tactics, being the use of a case study protocol, and development of a case study database. A case study protocol contains the measuring instrument, and also the procedures and general rules that were followed for the field work.

4.9.5 Ethical Considerations

At the research proposal stage, the research design outlined that for the case study research human participants needed to be interviewed (informants), and that documents would be sought from these participants to further inform the case studies. Confirmation of the research was granted, and the Human Ethics Certificate of Approval was granted by the Monash University Human Research Ethics Committee (project number: CF09/2123: 2009001209). The conditions placed onto the researcher involved a number of measures to ensure no discomfort was placed onto the research participants, including:

- (i) Provision of an Explanatory Statement. Every participant was provided with a copy of the Explanatory Statement that contained identifying information about the research, contact details both of the Supervisor and the University's Ethics Committee (see Appendix A for the Explanatory Statement, and Appendix B for the Interview Questions).
- (ii) Written Consent prior to commencing the Interview. Before interviewing a participant, the Consent Form was provided and interviewees were requested to read these in detail and sign the Consent Form, as appropriate. The Consent Form included a number of items, including if the participant would be available for follow up questions, required de-identification, and understood their right to withdraw from the interview / and research at any time. Consent Forms were collected and scanned for storage after completion of the interviews (see Appendix C for the Consent Form).
- (iii) De-identification of all relevant information. All participants were, as part of the Consent Form process, offered the option to have their personal details and organizational details de-identified. As a majority of participants had selected this option, the researchers decided to de-identify all participant information after the initial three case studies.

4.10 SUMMARY OF CHAPTER 4

This chapter provided an overview and rationale for why this study adopted a multiple case study research design and underpinned by an interpretive paradigm. It described in detail the data gathering, and data analysis procedures that were conducted for the study. The data for this study was collected through interviews, and document

reviews. The analysis followed a deductive leading to an inductive hybrid approach, using both template analysis as well as immersion / crystallisation. The within-case analysis was followed by the cross-case analysis. At the conclusion of this chapter, it was also explained how research quality was assured throughout the research by addressing key concerns that are held in part of the decision-making literature against qualitative research. The next chapter discusses the results from the six case studies conducted as part of research phase I.

5 FINDINGS PHASE I: MULTIPLE CASE STUDY RESEARCH

5.1 INTRODUCTION

The purpose of this chapter is to provide an overview of the results from the first phase of fieldwork, and answer the research questions:

RQ 1: How do real world decision makers approach an outsourcing decision, and what influences the adoption of decision frameworks and decision models?

RQ 1.1: What decision models are used during each stage of the outsourcing decision-making process?

RQ 1.2: What are the inhibitors in adopting outsourcing decision models?

RQ 2: What is the connection between the outsourcing decision-making process and the outcome of the outsourcing decision?

RQ 2.1: What impacts the adoption of a decision-making process type?

RQ 2.2: How does the context influences the discovery of outsourcing decision dimensions?

RQ 2.3: What influence does the process have on determining the choices for each dimension of the outsourcing decision?

RQ 2.4: How do the choices for each dimension of the decision impact the overall outsourcing decision outcome?

RQ 2.5: How does the outsourcing decision process itself impact the outsourcing outcome?

The chapter is structured as following: Sections 5.2 – Sections 5.7 provide an overview of each of the six case studies. Each of these Sections is further sub-divided into five sub-Sections, including Decision Context, Decision Process, Decision Content, Decision Outcome and a Summary of the Case Study Findings. The chapter concludes with a summary of the findings and discussion of the implications from the findings from the first phase of field work on the next research phase. Figure 5.1 below highlights the position of Chapter 5 in the overall research design.

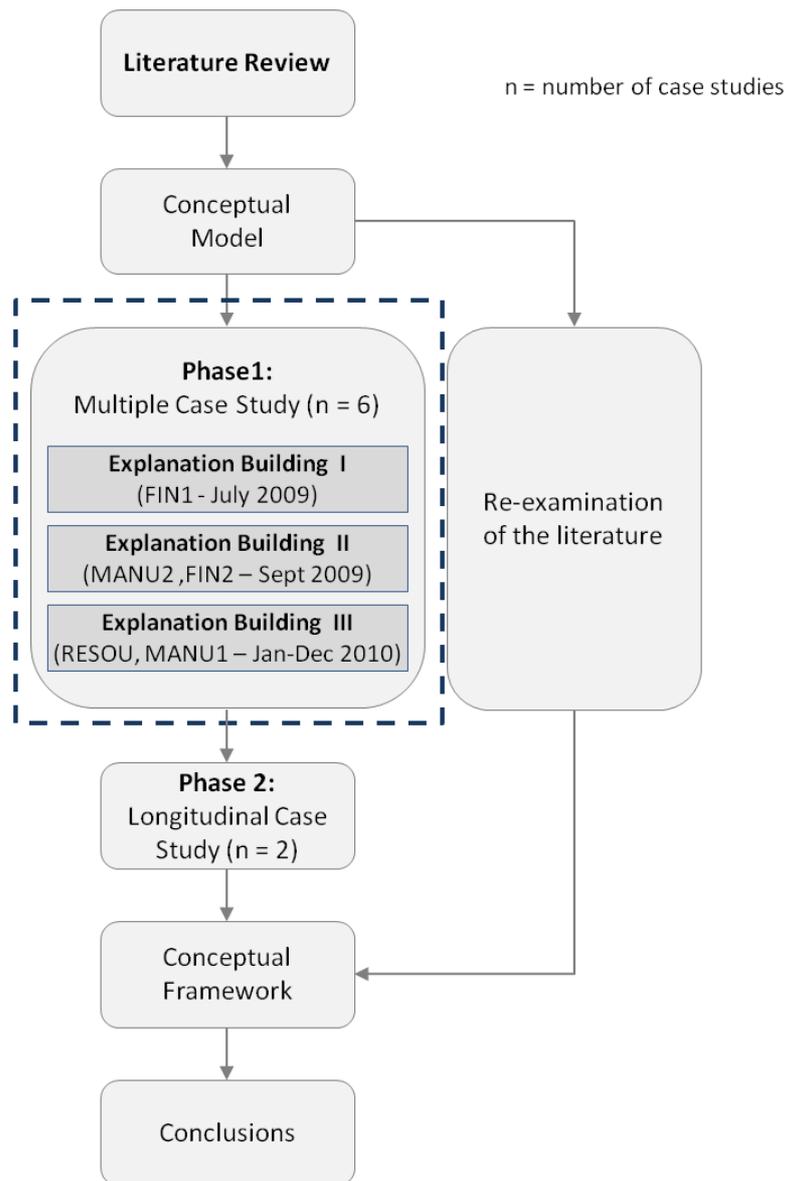


Figure 5.1 Position of Chapter 5 in the Overall Research Design

5.2 CASE STUDY COMPANY I – INSU

INSU UK is a global health insurance group, based out of the UK, and owns through INSU Australia (short INSU) several health insurance brands in Australia. INSU is a major player in the Australian health insurance market and provides health insurance products that close the medical gap between what is covered by the Australian public health care system (Medicare) and medical bills. INSU, being the second largest health insurer in Australia, plays a significant role within the global INSU group, contributing to about 30 percent of INSU's global revenue. As of 2005, INSU held about 10% of the market share in Australia, and positioned itself for growth (after the research was conducted, INSU acquired another health insurance company in 2008, which is now a brand of INSU, making INSU the second largest private health insurer in Australia).

In 2005/2006, prior to the acquisition of the other health insurance company, INSU's growth plans for the business required INSU's IT department to change and prepare for the anticipated growth in the business. In particular, the IT department was to become more flexible and adaptable to deliver faster in the area of applications development and maintenance in response to government regulation requiring insurance companies to modify their systems.

To deliver this change in IT, INSU's CIO evaluated at the end of 2005 an opportunity to use offshore outsourcing. This decision is under investigation here. The CIO and Project Manager (Head of Applications) were interviewed. Key artefacts produced by the project team involved in the decision-making were also reviewed.

5.2.1 Decision Context

IT in INSU plays an important role; and understands itself as an enabler. However, although mainly run in-house, IT operates at high cost efficiency. When benchmarked against other INSU group members, INSU had the lowest IT costs per headcount. The attitude displayed by INSU's CIO, who came onboard from INSU in the UK in 2002, is underlining the fact that INSU is trying to run IT lean:

*“We are a health insurer that needs IT, not an IT shop that is sort of looking to grow.”
(CIO, INSU)*

When INSU acquired its first health insurance brand in 2002 entering the Australian market, it took over the legacy COBOL applications from the previous corporate that had sold the health insurance company. The systems were still running on mainframes, with the core application system having approximately 4.5 million lines of COBOL code.

COBOL is an older, so called 3rd generation programming language that was widely popular in the 1980s and 1990s, but has been replaced since with object oriented 4th generation programming languages on which all of today's applications are build, making it difficult for organisations such as INSU, which still have COBOL applications, to find support.

By 2005, INSU felt that it was increasingly difficult to find COBOL programmers to supports its applications. Many programmers had retired or were only available as expensive contracting resources.

Further, the core applications were not well documented and a significant amount of applications knowledge is with key members amongst INSU's application support team comprising 19 staff with an average of 12-15 years experience with the organisation. Some staff members were, at that time, considering retirement or redundancy, and INSU had employed a technical writer to ensure the applications were documented and application knowledge was captured.

With INSU in the UK already having a contract in place with a tier two offshore provider, the CIO was quick to identify the existing resourcing deal with the provider as a sourcing option to address his programming resourcing need. The relationship with the offshore provider was already established and seemed to have worked for INSU in the UK.

"It wasn't a hard decision because we'd already got a relationship [...] if we went outside we were going to have to start talking to people that we didn't have a close relationship with." (CIO, INSU)

However, for all decision makers involved in the off-shoring decision, including the INSU CIO and his team, it was the first time to be involved in offshore outsourcing. It is noteworthy that to this date, most of INSU's IT is run internally, including the data centre, all infrastructure services, and key application development projects.

The fact that INSU thought it was worth leveraging the relationship between INSU global and the offshore Service Provider means that there was some level of satisfaction with the offshore provider reported by INSU in the UK.

5.2.2 Decision Process

The process, in contradiction to the generic strategic decision-making framework, did not include considering and evaluating other options. Although there was awareness of other options, a further effort to substantiate other options, i.e. by going to market, was not done. The CIO explained:

“Whether that was right or wrong, we didn't go to market, we just continued with the offshore provider as a group and had a relationship with them”

The level of rule formalization appears to be low, with only a limited set of documents produced. *“There probably wasn't that level of formality.”*

A final presentation that was played to the Executive Team to get approval for the additional funding, which was required to sign and set up the offshore deal, summarized the recommendation in a qualitative way:

“Well, I think, we actually painted the picture of where we'd come from, with the offshore provider, painted the picture and did a little bit of research in the Australian market trying to find COBOL experience and the price points, so we obviously balanced that but there was some risk in it, and you know, there's an overhead of managing an offshore partner. So we painted that picture but it was quite compelling, it was quite compelling at the time and so it was a fairly easy presentation and approval process from the Australian executive team.” (CIO, INSU)

5.2.3 Decision Content

As the scope of this decision was limited to application support services only, the decision also comprised of only a selected number of dimensions, including: geography.

The CIO was clearly articulating his rationale for the offshoring, and he also understood the associated risks.

His predominant rationale for going offshore was the price differential between local and offshore resources, while being able to leverage the existing offshoring relationship. This extended workbench enabled the CIO to deliver on an increased

program of works, which he otherwise could not complete: *“It enabled us to deliver more in a cost-effective way.”*

He also investigated the market overall, however, the depth of the research, especially given that there was not a go-to-market tendering done, is questionable.

Other dimensions, such as asset ownership are not relevant to such a decision, and were therefore not explored. The tenure of the contract was equally not explored, as the Master Services Agreement already existed with INSU in the UK, and INSU was merely leveraging off from this pre-existing relationship, requiring that for every piece of work that INSU would ask from the Service Provider a separate Statement of Work needed to be developed (adversarial relationship).

5.2.4 Decision Outcome

At the end of 2006, one year after INSU offshored to the offshore provider, despite the offshore provider delivering bug-free and high quality programming results, INSU felt that the relationship was not working. Particular concerns existed around budget and timeframe overruns. INSU therefore triggered a review of the offshore outsourcing decision questioning the viability of the deal going forward.

The findings of that review were that INSU needed to do further investing into the relationship to make it work, including exchanging resources for periods of time to familiarize the INSU management with the offshoring provider in India and also build relationships with selected key members of the offshore provider’s team; and in particular to do a better job in handing over work to the provider and have checkpoints established.

Today, the offshoring relationship with the offshore provider produces the envisaged results. The relationship is now in its sixth year, and is likely to be continued for some time. However, the offshoring brought its own set of challenges that still exist, as stated by INSU’s CIO:

“I think part of it is the environment in India. [...] they have gone through a lot of attrition, [...] and that has affected the overall delivery capability.”

INSU's CIO also stated that despite the relationship seeing the results envisaged, INSU wants to mature the relationship enabling them to subscribe to a managed service, as opposed to an adversarial relationship.

"It was a tactical decision in 2005 because of meeting the demand" (CIO, INSU)

The goal is to give the provider more, end-to-end responsibility. Further, this change towards a more strategic approach in sourcing is best reflected in the following statement by the CIO about the challenges he faces going forward:

"To ensure that the technology area supports that business change effectively, what do we need to put in place?"

A question raised in that context by the CIO expresses his key concerns: *"What does success look like?"*

5.2.5 Summary

The CIO of the organisation saw an opportunity in leveraging an existing offshoring capability that existed in the wider INSU group (*Can act*). Nutt (2008) classifies such decision-making processes as *Idea Imposition*. As per Nutt's (2008) description of the *Idea Imposition* process, the CIO had no target set that was to be achieved, but proposed that the offshoring would close the resources gap that emerged. None of the decision makers had prior experience in ODM (*First Timers*). A business case was developed, and other options were only briefly visited (*Narrow investigation*). Without a clear strategic direction (hoped for benefits), only moderate success was achieved in the relationship – the expectation was met that INSU could leverage offshore resources (*Quick Wins*). The question raised by the CIO: *"What does success look like?"* implies a search for new direction that is typical for decisions that resulted from an *Idea Imposition* process.

Of particular interest for this research is the consequence of the *Idea Imposition* process on the choice of decision model, or as in this case, absence of such a model. The lack of any prior outsourcing experience had led the CIO and his team to only focus on rationalising the identified opportunity (the offshoring). Due to the existing relationship with a vendor at the group level, the options assessment was largely informal, with only a limited set of rules being applied. All key observations from this case study are summarized in Table 5.1.

Table 5.1 INSU Case Study - Summary of Observations

Case Study I (INSU, 2005/6)	
Decision	Can act (opportunity)
Magnitude of impact	<ul style="list-style-type: none"> • Service is a critical enabler
Threat / opportunity	<ul style="list-style-type: none"> • Opportunity to get resources • Existing contract to leverage
Uncertainty	<ul style="list-style-type: none"> • High, no precedent decision process
Urgency	<ul style="list-style-type: none"> • Low, lack of local resources to manage work load
Pressure	<ul style="list-style-type: none"> • No pressure from senior management • No pre-existing contracts
Frequency / familiarity	<ul style="list-style-type: none"> • No prior outsourcing experience
Decision maker	First Timer
Prior experience in ODM	<ul style="list-style-type: none"> • Some individuals with limited prior experience • No use of external consultants
Process type	Idea Imposition
Steps executed	<ul style="list-style-type: none"> • CIO had ready-made plan (utilise same contract with vendor that is used by global INSU group) • Little intelligence gathered • Search skipped (no other models / vendors considered) • Evaluation of vendor defensively
Hierarchical decentralisation	<ul style="list-style-type: none"> • CIO drove idea • Small project team formed • Little consultation with stakeholders from business • No board involvement (scale too small)
Content	Narrow investigation
Breadth of rationalisation	<ul style="list-style-type: none"> • Market not scanned • Only brief evaluation of contract (length, geography, etc.) due to existing agreement
Depth of rationalisation	<ul style="list-style-type: none"> • Brief analysis
Outcome	Quick Wins
Benefits attainment	<ul style="list-style-type: none"> • Deal achieved limited outcomes (access to resources, but needing adjustment)
Sustained adoption	<ul style="list-style-type: none"> • Long-term (5+ years)
Management satisfaction	<ul style="list-style-type: none"> • Moderately satisfied • Considered tactical fix • Want to mature relationship, less adversarial

5.3 CASE STUDY COMPANY II – FIN1

FIN1 is amongst the four largest banks in Australia with over 30,000 employees. The organisation has several legacy core information systems, which were developed in-house some 30 years ago. In 2006/2007 FIN1 looked to offshoring part of the application development and maintenance – this decision is under review in this case study.

The decision facilitator (Project Manager) of FIN1 was interviewed three times.

5.3.1 Decision Context

Some 15 years ago FIN1 initiated a project to migrate its core banking system onto a newer platform (from Clipper to Cobol), but until today it has not been migrated and Cobol platform is also now legacy.

With the ageing architecture and increasing technology risk due to the decade old core banking system, FIN1 was looking for a Service Provider to maintain its application systems and re-platform it onto a newer system, where possible. However, as with INSU, FIN1 also faced an increasingly competitive labour landscape in Australia in 2006.

Further, with a number of these key applications being bespoke (application systems that are developed to the bank's specifications), the bank had a monumental task of redeveloping the functionality in new code.

Lastly, another major obstacle to re-platforming posed the piecemeal architecture. According to the Project Manager, the bank had *“never implemented an enterprise architecture, although it existed on paper”*. The bank's IT processes were considered immature. In its own assessment, the bank gave itself a zero on the CMM (Capability Maturity Model) rating scale, meaning that the bank did not believe it had documented processes nor was following these:

“Generally the organisation tended to shy away from any formal benchmarking because it was so poor. There was no real documented baseline.” (Project Manager, FIN1)

The lack of application development may also be explained by the bank's overall culture, which the Project Manager described as *"a very, very, very conservative organisation"*.

In this context, it is not a surprise that earlier attempts to offshore some of the application development work had failed.

Prior to this case study decision, which took place in 2006, the case study organisation had already undergone a decision process five years earlier (in 2001), which then did not result in offshore outsourcing of the application development and maintenance.

What triggered a revisit of this decision was a trip by the organisation's new Group CEO and Group CIO to India in early 2006, when they met with local Service Providers, which successfully showcased their capabilities and put an attractive value proposition to them to outsource. One of the major Indian Service Providers that they had visited promised the CEO, if he was *"signing up with them, they would get overnight a 30 % saving over their current in-house costs."* (Project Manager, FIN1)

Subsequent to his tour of India, the CEO apparently had made up his mind that the organisation should outsource, and engaged a committee to further investigate and prepare a deal. However, despite the CEO's optimism about the potential of outsourcing, the Group CIO was sceptical about the value proposition of the vendors, and prevented an immediate outsourcing, asking for conducting pilots first to test the vendor's capabilities.

The project team that was assembled to execute the decision and prepare the pilots, had no or very limited experience in outsourcing prior to this decision. However, according to the Project Manager a *"pretty high calibre team was [assembled], and it mobilised the momentum that made the change"*.

5.3.2 Decision Process

However, the decision process in the lead up to the pilot outsourcing project was anything but structured or formalized. The Project Manager described it as follows: *"We outsourced without guiding principles. [...] We didn't sit down as a team and workshopped our principles."*

In other words, the “why to outsource” question was not formally raised, but rather an answer to the question was implied based on the value proposition that the Service Provider had brought forward (the 30% cost savings). Clearly, the CEO of the organisation wanted to offshore outsource, and exhausted pressure on the team to achieve this goal.

“A downward push, [...], they obviously pushed for result to come up from the ground as well, team mobilised, given a mandate, were given some funding, [...]” (Project Manager, FIN1)

This downward push of a certain expected outcome is also evident from how the decision model was applied. Although a weighted scoring model was used, the decision facilitator felt that there was not a lot of analysis done to substantiate the scoring of options, but rather based on opinions.

“It wasn’t what I would call an overly structured process, largely it was based on opinions, opinions of key stakeholders. Rationalisation of [those] opinions. A weighted numbers type decisions, as opposed to something that is validated by a lot of logical analysis, which again is consistent with the way the organisation operates.” (Project Manager, FIN1)

Without clearly formulated rules, those opinions could easily tip the decision from one direction into another.

“There was no real documented logic, or rationale around that decision, it was all factored into the capability and commercial evaluation.” (Project Manager, FIN1)

Due to the pressure from top management, nobody dared to step in and re-evaluate the situation.

“You get into the organisation, decisions are not made by people who are accountable, decisions are made by groups of stakeholders, all of which think they have power they haven’t. [...] So decisions are made by socialising, and socialising. Effectively to a degree to wear people down.” (Project Manager, FIN1)

Further down the track of the decision process, the short listing and selection of a Service Provider was also not based on a thorough analysis. In other words, the justification for a certain choice was not rationalised. It was rather “based on opinion”, and even “personal relationships”. The opinion was that “if we had

analysed the situation, we would have had to follow the recommendations from our analysis, and no one wanted that.“ (Project Manager, FIN1)

5.3.3 Decision Content

In terms of the decision rationalisation, it appears that, despite having done extensive analysis, the decision was predetermined by the executives. The decision facilitator expressed it in the following way:

“So the way I profile is that there was a lot of work done to analyse and assess the capabilities proposed, against our stated requirements. While those in hind sight ended up being very supportive of the decision made, I have no doubt that the primary driver of the decision outcomes was the executive spin - what the executives quickly wanted to achieve through the transaction. [...] While it wasn't a hypothesis driven [decision], because it didn't come out that way. But, if the capability evaluation had an outcome that looked different to what the execs wanted, I am sure we would have gone with what the executive wanted.” (Project Manager, FIN1)

The decision facilitator further confirmed that the options the organisation had discussed were limited to the offshoring model.

5.3.4 Decision Outcome

Of the three outsourcing pilot projects that were executed - two pilot projects were awarded to one vendor, and one pilot project was awarded to another vendor - only one project was successful.

All three projects were related to application development and maintenance services. According to the decision facilitator, the successful project was only successful, because the Service Provider treated the project as a *“loss-leader”*, meaning that the Service Provider delivered the results at or even under the budget, by investing its own money to get their *“feet in the door”*.

The other projects struggled with the organisation's service requirements, as stated by the decision facilitator, as the organisation was in all three pilot projects not able to communicate their service requirements. The example that the decision facilitator provided was, that when the Service Providers asked for the technical and functional specifications to commence with the application support and maintenance, the

organisation could not provide these, as the system had evolved over a number of years without anyone taking responsibility for keeping the documentation up to date.

5.3.5 Summary

As per Nutt's (2008) classification scheme, this decision process is clearly following an *Idea Imposition* Process.

The CEO, without prior ODM experience (*First Timer*), returned from India with a clear idea about what he wanted to achieve. The decision process delivered a post hoc justification, so the outcome was predictable from the start of the process.

Based on this assessment, it did not matter if the decision model applied included an extensive search for alternative solutions and analysis of these. The team that was assembled had little impact on the decision made. It developed the process, gathered market intelligence mainly based on opinions, and then assessed these options again, based on opinions. The bank and its decision makers, who collectively had not been involved in an offshoring decision previously, were not investigating offshore outsourcing alternatives (*Narrow investigation*). Further, the bank only brought in external advisors when it had to execute the decision, in particularly to develop the contract.

Of the three outsourcing pilot projects that were executed, only one project was successful. The offshoring model had only delivered *Quick Wins*, and did not sustain.

All key observations from this case study are summarized in Table 5.2.

Table 5.2 FIN1 Case Study - Summary of Observations

Case Study II (FIN1)	
Decision	Can act (opportunity)
Magnitude of impact	<ul style="list-style-type: none"> • Service is an enabler • Service is a commodity
Threat / opportunity	<ul style="list-style-type: none"> • Opportunity to offshore and • Vendor promised price discount
Uncertainty	<ul style="list-style-type: none"> • High, no precedent decision process
Urgency	<ul style="list-style-type: none"> • Low, decision had been put off for 5 years
Pressure	<ul style="list-style-type: none"> • Some pressure from senior management to trial off-shoring • No pre-existing contracts
Frequency / familiarity	<ul style="list-style-type: none"> • Limited experience from other outsourcing
Decision maker	First Timer
Prior ODM experience	<ul style="list-style-type: none"> • Some individuals with limited prior experience • Sporadic use of consultants
Process type	Idea Imposition
Steps executed	<ul style="list-style-type: none"> • CEO approached by vendors with opportunity • CEO commissioned project to plan • Search limited to offshore option • Evaluation of vendors based on opinions
Hierarchical decentralisation	<ul style="list-style-type: none"> • CEO drove idea • Project team formed • Stakeholders from business consulted • No board involvement
Content	Narrow investigation
Breadth of rationalisation	<ul style="list-style-type: none"> • Offshore market scanned • Only economic evaluation of offer, no other options or dimensions considered
Depth of rationalisation	<ul style="list-style-type: none"> • Brief analysis
Outcome	Pilot / Quick Wins
Benefits attainment	<ul style="list-style-type: none"> • Only 1 of 3 projects successful
Sustained adoption	<ul style="list-style-type: none"> • Off-shoring model still being trialled
Management satisfaction	<ul style="list-style-type: none"> • Moderately satisfied • Off-shoring seen as option • Want to further trial

5.4 CASE STUDY COMPANY III – MANU1

MANU1 is an Australian-based, large international manufacturing company that employs about 20,000 staff worldwide. The company operates in close to 20 countries with over 100 manufacturing sites. In 2005/2006 MANU1 renegotiated an ITO agreement with its Service Provider for the provision of all of its IT services. This is often referred to as a “total ITO”.

This decision is under review in this case study. Three decision facilitators were interviewed, including the Program Director, the Project Manager, and an External Consultant. Key artefacts produced by the project team involved in the decision-making were also reviewed.

5.4.1 Decision Context

MANU1 is the result of a divestiture from RESOU around 2000. Prior to the divestiture, MANU1 (then part of RESOU) received IT services from SERV1 under RESOU’s IT services agreement with SERV1. After the divestiture, which saw MANU1 transforming into a separate and independent entity, MANU1 continued to receive IT services from SERV1. The agreement was novated. The decision to continue with the existing IT Services Agreement was seen in MANU1 as the easiest path for a number of reasons. Firstly, SERV1 had an in-depth knowledge of MANU1’s business, especially because two years prior to the spin-off of MANU1, RESOU had outsourced its in-house IT services to SERV1, and with this transaction all of its IT staff had transitioned to SERV1. Secondly, continuing with the IT Services Agreement meant little disruption to the business, which needed time to transform after being spun off. The contract would continue for another six years before MANU1 would decide to completely renegotiate the deal. This renegotiation happened in 2005/2006.

The timing of the decision was determined by three factors:

Firstly, MANU1 was competing for attention from the Service Provider. All former RESOU companies, including MANU1, MANUX, and RESOU itself, all held the same contract with SERV1 since the divestiture in 2000. Since all three organisations had the same contract, they also shared the contract expiry date. Therefore, some key decision makers in MANU1, being the CIO and one of the decision facilitators,

thought that it was a good idea to renegotiate the contract with SERV1 earlier in order to not compete for attention from SERV1 with the other organisations.

Secondly, there was also a plan to refurbish one of the major processes, which required not only management attention, but also a significant capital investment. Again, another reason to undertake the decision-making early.

Lastly, according to the Program Director in MANU1, the sourcing strategy would be reviewed every year, and as part of that, the above were identified and a decision-making process was triggered. The Program Director said:

“Everybody should have a sourcing statement and should review that strategy every year. We did.”

The challenge faced by the team was in the complexity of MANU1’s IT environment. IT plays an important role in MANU1. As a manufacturing organisation, management of its production processes is critical and hence its production control systems are important. The ERP system on which procurement, sales and marketing and supply chain and finance rely, is essential to MANU1’s business operations. This means, that the availability and reliability of these services is of outmost priority to the business:

“The business is 24 by 7, 365 days a year. And, for some of the processes, IT is critical [...] If the system went down, the system would go down and the business would stop between one hour and three days later, depending on how much planning was already done and where they were in the planning cycle. I would like to say that [operations at the company] was running a 24 by 7 [24 hours a day, 7 days a week] system in Australia in the 60s when the banks used to shut down for eight hours every night.”
(Program Director, MANU1)

Due to the federation of its IT, every business had their own IT Manager and discretion over their IT budget. The IT environment had grown somewhat uncontrolled:

“The software - you had everything from mainframe [...] to modern design of the system, and everything in between.” (Program Director, MANU1)

Further, since the organisation had acquired other businesses, the IT environment had changed a lot, not only increasing the number of platforms and applications, but also the diversity in outsourcing models, with many of the added businesses running an in-sourced IT shop:

“We have been on a pretty ambitious acquisition, merger and acquisition binge for four, five, six years, and every single one of the companies we purchased have in-sourced IT.” (Project Manager, MANU1)

The role of the two interviewees was to facilitate the decision-making process by engaging with the CIO and business and prepare the commercial evaluation (Program Director), and manage the actual RFP process (Project Manager).

Both decision facilitators, Program Director and Project Manager, suggested that their authorisation *“was quite small”*:

“IS managers don't have authority, they report to business people in their own divisions [...] the CIO and the CEO would have gone to the board on the recommendation in 2005, and both on the strategy we proposed to follow and then the next six months eventually on the decision itself.” (Program Director, MANU1)

Further, while the Program Director had substantial experience in outsourcing, in terms of the actual ODM, the Program Director, and also the rest of the team were admittedly *“green”*.

However, the decision-making team comprised of cross functional stakeholders, including from business, IT, procurement and legal. In total there were 10 people assigned to the decision-making team:

“The actual process leading up to that – the word characterizing - it was collaborative.” (Project Manager, MANU1)

In terms of MANU1's perception of SERV1's performance, both Program Director and Project Manager, confirmed that the organisations management was valuing long-term relationships with its business partners and that SERV1 was a long-term partner that provided a solid service to the business.

5.4.2 Decision Process

The decision-making process of outsourcing MANU1's IT was highly formalised. It was very similar to RESOU's decision-making process. Whilst the initial decision about going to market (*“The first decision was are we going to go to tender or not?”*, Program Director, MANU1) was facilitated internally, for the subsequent execution of the Request For Proposal (RFP) process a consultancy firm was engaged. Both decisions were approved by the board:

“The board had to approve that decision, as well before we went ahead with the renegotiations.” (Program Director, MANU1)

The initial decision regarding renegotiation or going to market was hypothesis driven. The hypothesis was that MANU1 would not gain anything by going to market, but put the business at risk of a disruption if the go-to-market would result in a change of provider. However, to ensure that negotiations would lead to a substantial improvement of the Service Provider’s performance, it was decided that the incumbent provider had to go through a full RFP process:

“We went to a full blown RFP process even though we were running only with the one vendor.” (Project Manager, MANU1)

At this stage, all sourcing options were still on the table and the decision-making process was already quite formalized:

“[...] continue with a different supplier or choose another supplier. [...] I can't remember, if we had insourcing as option, but we would, but it wasn't expected. [...] Theoretically we could in-source, and we had the contract terms would allow us to do that. [...] It's a theoretical option, but mostly we thought we wouldn't want to do that, and in fact, we got out of IT a long, long time ago.” (Program Director, MANU1)

The consultancy firm was engaged to provide the methodology and advised on the process, ensuring that the same rigor was applied to the single vendor RFP process, as would have been if the company went with the RFP to several vendors (go-to-market). This was not only to confirm to the incumbent vendor that MANU1 was serious about renegotiation and could, at any time, take the whole contract to market should negotiations stall. This was also to give confidence to all internal stakeholders, in particular the business (production and operations) and procurement, that the outcome of the process would be acceptable to them.

With the consultancy firm engaged, a nine stage RFP process was executed: 1. Data Gathering; 2. Sourcing Strategy Analysis; 3. Risk Assessment Workshop; 4. Sourcing Strategy Report; 5. RFP Development; 6. Benchmarking; 7. RFP Open Period; 8. Evaluation; 9. Contract Negotiations.

When it came to evaluating the Service Provider’s RFP response, the project team used a typical scoring model:

“A set of options, and the options would be scored against the weightings, and in the process method that I would use it was a relative rating and, therefore a given objective. Which objective is the best? They would get 10. Every other objective - - every other option against that objective is rated compared to the best.” (Program Director, MANUI)

The decision process was highly formalised, and the rationalisation of the decision had sufficient depth. A Project Implementation Review (PIR) that was conducted by an external firm also concluded this according to the Project Manager:

“That was one of the findings of the PIR, because we had a professional project management company come in and do a process implementation review, and that was certainly their finding. So the point up to which we made the actual decision in principle – they said was a well managed project. A lot of rigour, we knew what the objectives were, we knew what the timeline was, it was clear.” (Project Manager, MANUI)

In summary, although the execution of the RFP was following a highly formalized process, the initial decision to negotiate with the incumbent exclusively found some critics. The Project Manager justified the decision by raising the following question:

“Yes we could go to market. The big question being asked is: What would we get [out of it] any better [sic]? Really, and in particular, with the benchmarking results coming back [favourably]?” (Project Manager, MANUI)

Despite the team conducting a benchmarking of the incumbent against market prices, non-financial measures were hardly considered.

5.4.3 Decision Content

The number of dimensions considered by MANUI were comprehensive, reaching from scope, geography, length of contract to number of suppliers. Asset ownership was not a question, since the outsourcing contract had been in place for over a decade and MANUI had sold most of its IT assets when it was still with RESOU.

In terms of the rationalisation of the decision, there was sufficient evidence to conclude that there was a high level of understanding and logic.

“For example, what are the key objectives you want in a renegotiation, and what determines whether the renegotiation is successful or not? How do we decide that we give up the SERVI renegotiation and we go to tender? All of that was documented.”

(Program Director, MANU1)

Reviewing the documentation that was generated, it is found that the level of documentation was high when compared with other case study sites. The objectives and success criteria for the renegotiation were documented and followed through. Yet, the decision appeared to be somewhat post-hoc justification, as evident from a remark by the Program Director:

“We pretty well have decided that we wanted one prime [...] maintain it pretty simply.” (Project Manager, MANU1)

The same was also confirmed by the Project Manager, who said:

“It is probably 50 percent laziness – to be honest.” (Project Manager, MANU1)

It seemed that senior stakeholders in the organisation did not want to go to market as they feared the disruption it would cause to the business, and therefore prevented it:

“We value, you know, long-term relationship. And so, from our site’s perspective, while the supply guy at the time was very keen for us to test the market, the business was saying “no, we are quite happy. [...] And, most business people were quite happy with the renegotiation recommendations, because they did not want the disruption of a disengagement and re-engagement because it might affect their business.” (Project Manager, MANU1)

Further, from the interviews it became clear that the decision makers were aware of the wealth of knowledge that the Service Provider had accumulated over the number of years, in particular in the application space. This was especially the case, since many of the personnel had some 10 years ago prior to the decision transferred with the outsourcing from then RESOU to SERV1, and had remained at SERV1 working for MANU1 ever since.

In terms of the other dimensions, there was some strong justification provided, including for the length of the contract: *“It’s not economic for the supplier to have a very short deal, and so a four-year asset life sounded like the right balance between the two” (EC, MANU1)*

In terms of the number of suppliers and scope, the team provided an equally strong rationalisation. Although multi-sourcing (the use of multiple best of breed suppliers) had been the “flavour of the month”, the team could not make a case for it. For one, the governance of multiple vendors would have brought its own challenges, being in

the integration and end-to-end management of services. Also, MANU1 understood it had to give sufficient scale to SERV1 to unlock potential savings. It was therefore decided that MANU1 would progressively evaluate for selected services the case for unbundling and outsourcing to other vendors. To enable this, MANU1 made the contract non-exclusive.

In conclusion, the decision to not go to market had somewhat been made before the decision-making process had formally run its course. Given the major discount promised (the Service Provider had offered a 20% reduction in fees), and the fact that the business did not want any change fearing disruptions to operations, the decision to renegotiate exclusively was predetermined.

5.4.4 Decision Outcome

For SERV1, the timing of the renegotiation was impeccable; with SERV1 using the early renegotiation with MANU1 as a signal to its other customers that SERV1 was still able to win extensions with their clients. This is in particular the case for MANU1, after having serviced MANU1, its former owner RESOU and sister company MANUX for over 10 years. Overall, it appears that MANU1 is satisfied with the contract:

“SERV1 recently had an independent review of how they are going about aligning to best practices. They got a raving review from the independent reviewer. So, yet again, another proof, we had kicked some goals with the contract.” (Project Manager, MANU1)

Whilst overall satisfaction levels with SERV1 are high, there is also a growing realisation that SERV1 has its limitations, and therefore MANU1 may head down the path of selective multi-source, if it can improve its own ability to manage multiple providers:

“I think there is realisation there that with the big tier 1, and we felt we do need to have tier 1, we are getting as good as we probably gonna [sic] get. And we had verification for that with the benchmarking recently, the experience with the 24x7 operation, and the scorecard, availability stats, and the response stats, the ITIL [IT Infrastructure Library] audit, and also many other things, so, giving weight to the fact, that in terms of tier 1 providing infrastructure services, they are OK [...] When it comes to innovation or bleeding edge, we can't expect them to turn a dime.” (Project Manager, MANU1)

5.4.5 Summary

The decision-making process at MANU1 initially followed a *Discovery* process. At the outset, all options were on the table, from continuing with the outsourcing, changing provider, to bringing IT back in-house. The decision makers, all with prior experience in ODM (*Routinières*), assessed all options (*Wide exploration*), and gathered benchmarking data to understand opportunities in the market; and decide from this initial review if it was going to test the market or was renegotiating with the incumbent exclusively.

Further, the sourcing review was not triggered by an opportunity, but was an annualised event.

Although an opportunity (incumbent promised reduction in fees by 20%) helped with the decision to run an exclusive RFP process with the incumbent, MANU1 reserved the right to exit the RFP process at any time and take the entire contract to market.

The decision-making process, particularly the go-to market exercise, followed a highly formalized process. The team had some prior experience with outsourcing (as it held already an existing outsourcing relationship), therefore understood the requirements for a structured decision-making process. Further, MANU1 engaged an external consulting organisation early in the process to assist with structuring and executing the process, which increased the level of formalization.

This highly formalized process enabled the team to consider many of the relevant dimensions, which also allowed for transparency and enabled stakeholders to buy into the process.

The outcome of the decision process was highly successful, with all three stakeholders confirming that the arrangement put in place has not changed and is continued without major modifications beyond its original term (*Long-term alignment*).

All key observations from this case study are summarized in Table 5.3.

Table 5.3 MANU1 Case Study - Summary of Observations

Case Study III (MANU1)	
Decision	Must act (threat)
Magnitude of impact	<ul style="list-style-type: none"> • Service is critical • Vendor has extensive knowledge of organisation after close to 10 years relationship • Service is a commodity
Threat / opportunity	<ul style="list-style-type: none"> • Threat to compete for attention, but vendor offered price discount
Uncertainty	<ul style="list-style-type: none"> • Low, experienced in decision-making
Urgency	<ul style="list-style-type: none"> • Moderate, contract still two years to go, but concerned about timing
Pressure	<ul style="list-style-type: none"> • Some pressure, senior management did not want change • Pre-existing contract
Frequency / familiarity	<ul style="list-style-type: none"> • Experienced, outsourced for over 10 years
Decision maker	Routinière
Prior ODM experience	<ul style="list-style-type: none"> • Experienced individuals • Used external consultants to facilitate process
Process type	Discovery / Emerging opportunity
Steps executed	<ul style="list-style-type: none"> • Annual contract review revealed threats • Gathered intelligence (market data) • CIO set direction • Search skipped to renegotiate with incumbent • Evaluation based on formal method
Hierarchical decentralisation	<ul style="list-style-type: none"> • Small project team formed • Stakeholders from business consulted • Board involvement (signed off on decision)
Content	Wide exploration
Breadth of rationalisation	<ul style="list-style-type: none"> • Market widely scanned, but entered with incumbent into exclusive renegotiation
Depth of rationalisation	<ul style="list-style-type: none"> • Detailed analysis
Outcome	Long-term alignment
Benefits attainment	<ul style="list-style-type: none"> • Deal achieved targeted outcomes (31 of 32 transition projects highly successful)
Sustained adoption	<ul style="list-style-type: none"> • Model and vendor continued beyond original term
Management satisfaction	<ul style="list-style-type: none"> • High levels of management satisfaction with process and resulting arrangement

5.5 CASE STUDY COMPANY IV – MANU2

MANU2 is an Australian-owned diversified organization offering mining services, chemicals and chemical based consumer products. It is operating globally and present in over 50 countries. MANU2 has outsourced its data centre facilities and operations since the early 2000s, and went again to market for the provision of all data centre services in Australia in 2005.

This decision is under review here. An external advisor and the CIO were interviewed. Key artefacts produced by the project team involved in the decision-making were also reviewed.

5.5.1 Decision Context

MANU2 has a federated IT governance model with a number of centralized services being provided at the corporate level. The data centre facilities in Australia, which are managed at a country level, host some global systems, giving the data centre a critical importance for the global business operations.

As is the case with many other organisations that sell off their IT assets to lease back the same assets under an outsourcing arrangement to reduce capital expenditure, the IT assets under such a deal are often used to the maximum length of time. In MANU2's case, the mainframe and server infrastructure in the data centre had reached the end of life. At the time of the outsourcing decision this equipment was between six to eight years old. Most applications were running on old IBM mainframes, and although running stable at the time, they required increasing levels of support and maintenance, and posed a risk in terms of reliability. The external advisor to the company, who assisted with the decision-making stated:

“[...] because they had that deal for so many years, they were just sitting there, all the equipment had aged, so ... they just kept it going.” (External Advisor, MANU2)

As MANU2 had subscribed to a managed service, whereby the Service Provider was only responsible to ensure uptime (availability) of the infrastructure and an agreed processing and storage capacity, MANU2 had no control over the refresh of the environment or any hardware-related decisions.

“Service provider basically providing the processing capacity, so they had all the equipment.” (External Advisor, MANU2)

The original outsourcing deal was awarded to Service Provider Old (SPO), which had bought all the IT assets and taken over the lease of the data centre, a deal that it continued to hold from 2000 until the end of its life in 2005.

At the midpoint of the deal, after 2.5 years, MANU2 engaged under the terms of the agreement with SPO a benchmarking organisation - Gartner – which conducted a price benchmarking. Gartner found that the prices paid by MANU2 for SPO’s services were high. Subsequently, MANU2 wanted to renegotiate the prices based on Gartner’s benchmark, however, SPO rejected Gartner’s findings, which led to MANU2 and SPO falling into dispute.

With the relationship between MANU2 and SPO damaged, and with MANU2 knowing that it was paying too much for the services rendered by SPO, MANU2 decided to let the contract expire, and to then put the contract out to tender in 2004.

“If the Service Provider had basically said, yeah, we agree with the Gartner thing [sic], therefore we just give you the mark down on the price, then the company would have not gone to market, and they would have said, yeah, we are happy.” (External Advisor, MANU2)

However, it is peculiar that although MANU2 had the dispute with SPO over the pricing of the services, their past performance was still perceived as acceptable. SPO was even invited to participate in the new tender process.

During the dispute with SPO, the local IS Manager had left the organisation, so that by the time the contract was put out to market, a new local IS Manager was onboard, who inherited the contract.

The decision facilitator, a consultant with a decade long experience in outsourcing, advised the local IS Manager on the go-to-market exercise. His role was to drive the actual decision-making process. Prior to this decision, he had successfully advised many other organisations on their outsourcing transactions.

The CIO on the other hand had no prior experience in outsourcing.

The decision to go to market and the selection of the vendor were both prepared by the local IS Manager and his team, but the board had ultimately the accountability to make this decision. The local IS Manager consulted with the executive leadership

team, but was responsible to prepare the decision and also had great level of influence on the decision outcome. This was confirmed by the decision facilitator, as well as the local IS Manager, who said that in IS decisions he had a significant level of discretion and the board was always following his recommendations, which in fact made him the actual decision maker.

In summary, the decision maker, who lacked experience in outsourcing, had high level of discretion over the decision. He hired an external advisor to assist with the process, and although MANU2 was keen on a significant price change, it would have accepted a renegotiation with the SPO, if they were open to negotiations as it was satisfied with the level of service.

5.5.2 Decision Process

To guide the decision process, MANU2 had brought in an external consultant. The IT Services Manager explained that the external consultant was hired for his knowledge of the decision-making process and the market:

“So, an external consultant came in really from the start, to help us, (a) formulate the RFP. They were data - - they were outsourcing specialists - - well, in the markets, knew the market, so they had a methodology that we followed and an RFP development process which we followed and then obviously some consulting in there around what we should be looking for and what we shouldn't be looking for, and also a selection process.” (IT Services Manager, MANU2)

Having engaged the same Consultant as MANU1, MANU2 executed a very similar decision process to MANU1's. The external advisor confirmed:

“[I] phased it, ... Yeah, and then to run it... working closely with the internal Project Manager... so I basically worked with the internal Project Manager, [...] , and then of course we got the project [...] according to which we worked, so we could just run our own thing.” (External Consultant, MANU2)

Similar to the MANU1 Process, the phasing was as follows: 1. Data Gathering; 2. Sourcing Strategy Analysis; 3. Risk Assessment Workshop; 4. Sourcing Strategy Report; 5. RFP Development; 6. Benchmarking; 7. RFP Open Period; 8. Evaluation; and 9. Contract Negotiations.

According to the IT Services Manager, the decision process that was followed ensured a great level of formality:

“It was fairly formalised, and we wanted it to be, and we had like our own purchasing people involved. We had our own legal people involved. It was a fairly formal process that we went through.” (IT Services Manager MANU2)

The request for proposal (RFP) had been used previously with other clients and was comprehensive. The decision model, a weighted scoring model, on which the proposals were rated, was equally comprehensive.

The evaluation workbook that was used considered the proposal against service, capability and commercial criteria. The rules by which it was decided which vendors would be shortlisted and eventually selected were clearly defined.

Due to having a number of cross disciplinary staff on the evaluation panel the level of bias involved in scoring was addressed. The external advisor stated:

“There was no bias. [...]We didn’t have any bias, we didn’t know who’s gonna [sic] win.” (External Consultant, MANU2)

In summary, the process that was followed was considered industry practice.

5.5.3 Decision Content

The rationalisation for continuing with outsourcing was found easily, with the local IS Manager saying that having outsourced for many years, the organisation had neither the desire nor the capability to bring back IT services. The IS Manager said that, since he was not involved in the original outsourcing, it was not easy for him to change course even if he believed that outsourcing was not the right direction.

In terms of switching vendors, the decision facilitator responded that although the incumbent was given a chance to retender, having been involved in the dispute, the relationship with SPO had soured. Further, given that MANU2 felt it had payed over market price for the services, there was not a case for continuing with the incumbent, unless the incumbent would have provided a significant discount – which it did not. In terms of the possibility to offshore, the decision facilitator stated that it had not been considered much, because the services had been provided onshore previously and that again there was not a push for change.

Moreover, since the organisation had to put a sufficiently scaled bundle to market to attract bids, there was not an opportunity to further slice and dice the service bundle.

The IS Manager stated that besides considering scale for the bundling of services, he also wanted to maintain the discreteness of the service.

Lastly, in terms of the duration of the contract, a main factor was the asset lifecycle. Given the infrastructure had reached its end of life, MANU2 wanted to award the vendor a longer term contract to encourage the vendor to invest into the infrastructure and allow the vendor to then recover its investment over a period of time.

In summary, the rationalisation for the decisions in terms of a number of dimensions was adequate.

5.5.4 Decision Outcome

The contract was awarded to a new Service Provider. According to both the local IS Manager and the decision facilitator, the contract that was awarded to the new Service Provider achieved the price reduction that the organisation was looking for, whilst getting the Service Provider to invest into the infrastructure knowing that it had sufficient time to recover the investment. Management satisfaction levels with the outsourcing arrangement were confirmed to be high.

Also, in terms of the satisfaction with the actual decision-making process, in particular the rigour and formality that had been applied, was seen as a major factor to achieve a timely decision with a positive outcome for the vendor. It was recognized by the organisation that the experience of the external advisor (decision facilitator) was a significant contribution to the success.

“In the end, I think, there wasn’t really any compliant. I never really got someone who said he had really a problem with the process, so [sic] really happy... Actually I got an award.” (External Consultant, MANU2)

The contract that was signed in 2005 is still in place today having been extended twice indicating a high level of satisfaction with the outsourcing arrangement. As a lesson learned, MANU2 continues to periodically benchmark its outsourcing arrangement, and by doing so not only maintains confidence in the value they receive for their money from the Service Provider, but also to keep the Service Provider “*on their toes*”.

5.5.5 Summary

The decision makers at MANU2 had prior experience in ODM (*Routinières*). The decision process that was adopted by the decision makers can be classified as a *Discovery* process. This is despite only considering a limited number of options in greater detail, i.e. insourcing and offshoring. For both options a rationale was provided why these were not viable or at least desired options. The process was formalized and followed. The rigour with which the remaining options were considered, being here the comparison of various vendors' offers, ensured that there was a high level of awareness of the implications when choosing one option over the other (*Wide exploration*).

It is noteworthy that had the incumbent Service Provider (SPO) agreed to price reductions, the process would have changed to an *Emerging Opportunity* process, whereby the local IS Managers agrees with the incumbent on an extension or renegotiation without further consideration of other options.

The nature of the services procured was not perceived as strategic, but rather being commodity type services, and although critical to business operations, IS deemed a number of players capable to deliver the services, therefore allowing an open market tender.

The deal that was formed with the winning Service Provider is still in place today having been extended twice indicating a high level of satisfaction with the outsourcing arrangement (*Long-term alignment*).

All key observations from this case study are summarized in Table 5.4.

Table 5.4 MANU2 Case Study - Summary of Observations

Case Study IV (MANU2, 2005)	
Decision	Must act (threat)
Magnitude of impact	<ul style="list-style-type: none"> • Service is critical • Service is a commodity
Threat / opportunity	<ul style="list-style-type: none"> • Threat from incumbent having overpriced services
Uncertainty	<ul style="list-style-type: none"> • Low, experienced in decision-making
Urgency	<ul style="list-style-type: none"> • High, need to change vendors as contract about to expire
Pressure	<ul style="list-style-type: none"> • No pressure from senior management, hands off • Pre-existing contract
Frequency / familiarity	<ul style="list-style-type: none"> • Experienced, first renewal of decision (outsourced for 5 years)
Decision maker	Routinière
Prior ODM experience	<ul style="list-style-type: none"> • Experienced individuals • Used external consultants to facilitate process
Process type	Discovery / Emerging Opportunity
Steps executed	<ul style="list-style-type: none"> • Contract about to expire • IT Manager setup project team to gather intelligence • IT Manager set direction to go to market • Search conducted (market tender) • Evaluation based on formal method
Hierarchical decentralisation	<ul style="list-style-type: none"> • Project team formed • Stakeholders from business consulted • Board not involved (hands off)
Content	Wide exploration
Breadth of rationalisation	<ul style="list-style-type: none"> • Comprehensively evaluated options and dimensions • Tendered services to market
Depth of rationalisation	<ul style="list-style-type: none"> • Detailed analysis
Outcome	Long-term alignment
Benefits attainment	<ul style="list-style-type: none"> • Deal achieved targeted outcomes (reduced price to market levels)
Sustained adoption	<ul style="list-style-type: none"> • Model and vendor continued beyond original term
Management satisfaction	<ul style="list-style-type: none"> • High levels of management satisfaction with process and resulting arrangement

5.6 CASE STUDY COMPANY V – FIN2

FIN2 is an Australian wealth management company providing retirement investment and superannuation (super) products as well as other related financial products. FIN2 operates in Australian and New Zealand, and is owned by one of the major banks.

FIN2 is the largest super administrator in Australia commanding a portfolio close to A\$ 100 billion in investments.

In 2007, FIN2 looked at offshoring one of their business processes called financial planning. This decision is reviewed in this case study. The decision facilitator, who headed up the business area that was under investigation for outsourcing, was interviewed.

5.6.1 Decision Context

The process of financial planning involves a financial planner meeting with customers that look to invest into their super or other investment products. Financial planning is done by the so called Financial Planner, who spends time with the customer to discuss their situation, options, and all administrative tasks and related fees that are associated with the selection of the various products.

As this case study is related to the offshoring of a business process, IT is embedded in the delivery of the service, and therefore not separately assessed. Therefore, IT characteristics are of lesser importance when examining the decision context. In this regard, it is noteworthy that the process is supported through a standardised application system that is relied upon by a majority of the players in that industry, and allows for usage in outsourcing arrangements where multiple parties access the same system.

With the Australian financial planning market being dominated by a few major financial institutions, a key concern for these players over the past years has been the shortage of qualified financial planners. With all institutions competing for a limited labour market, entry annual salaries were rising far above A\$100,000. Therefore, financial planning organisations such as FIN2 looked for other ways of increasing their productivity, starting with a review of the efficiency of its existing staff:

“I suppose we got to a point where we felt that we had [...] we had quite ... extracted

as much efficiency out of our software, out of documentation, out of rewriting the documentation.” (Decision Facilitator, FIN2)

A time and motion study that was commissioned found that productivity of the financial planner could be increased by introducing task split and greater specialisation. As a result, financial planners would be relieved of some of their administrative and analytical tasks which could be handed over to a so called power planner, thus giving the financial planners more client facing time. The result would be higher sales volume for the organisation without having to hire additional financial planners.

However, the labour market for power planners was in an equally difficult situation:

“I think at that point, the average power planner received over a \$100k, a good power planner received over a 100k base, for first time, [...], these people do not generate any income, they just work for someone else who is generating income.” (Decision Facilitator, FIN2)

Further, even if power planners could be found in Australia, they were harder to motivate, as the job required a combination of analytical skills and high output:

“Power planners, I think the third thing, which is relevant, was that the 40 people we had were a very difficult bunch of people to manage. I think this is a challenge in Australia in our environment, to get someone to sit and do this kind of job all day, and then you have to be highly intelligent, and then you need to understand the system, and then you need to work on production line, that seems contradictory, and they didn't really want to do it.” (Decision Facilitator, FIN2)

FIN2 had found and was trialling the use of some onshore power planning providers, but again, at no price point difference where outsourcing this work would have been attractive.

FIN2 needed power planning support, but was not in a rush to get it:

“I think if you are trying to solve the problem that's already a burning issue, you make decisions perhaps too quickly, we, in fact, never got to the point that there was really a burning issue, you know, what we identified was an opportunity rather than trying to close a gap. I think that the opportunity to increase productivity, increase service, improve service standards, was compelling, but we could have done without, we could have continued on with the current supplier.” (Decision Facilitator, FIN2)

FIN2 felt it had sufficient time to find other, alternative sourcing options, and was also aware that other players in the market were on the lookout for power planning support. The decision facilitator met with his counterpart in another financial organisation to compare notes. It was then that the two decision facilitators of these different organisations identified an opportunity to join forces and find an offshore provider that could serve both organisations and provided that the business of the two organisations would mean greater scale they would receive a significantly better price point:

“In early 2007 the proposal was put that we would pilot outsourcing of power planning. It was done jointly with another organisation, which was of similar size and had exactly the same situation, and between myself and my opposite number of the organisation when we talked – ‘we really both need to do this’ - because we had, you know, basically there was a limited growth, and we were trying to remove that limit, by going offshore.” (Decision Facilitator, FIN2)

5.6.2 Decision Process

To assist with the preparation of the offshoring business case, FIN2’s decision facilitator consulted with another group of individuals that were involved with offshoring, but in a different area of the organisation. These individual assisted with the decision-making process and provided input into the decision-making:

“They [individuals with experience assisting with the process] were across every detail ... and they have probably been through the exact same process, and we first called them in, they were our first port of call. They were FIN2 people, there was a guy that had been here 15 years, and there was a lady, who was very Australian but Indian by family, she seemed to understand both sides of the fence, just very interested, and they just told us, look here are the twenty steps you need to do to make it work. If we didn’t have the in-house skill set, we would have found it outside, and we would have found it, equally, but would have cost a lot of money. So those two people probably earned their keep by simply understanding FIN2’s culture, and understanding offshoring.” (Decision Facilitator, FIN2)

Over a series of workshops senior business stakeholders discussed the business case and fed into the final proposal. A key champion for the change was the CEO, who had supported the idea early on.

The greatest resistance came from the manager of the power planning team, who needed to be “convinced as to the quality” - that the service would be reliable and the

Service Provider could produce the same or better quality analysis that was achieved when processed in-house.

It should be mentioned here that none of the members of the team involved in providing the in-house service, was involved in the decision-making. Although identified as an stakeholder group, there was concern at senior manager level that the knowledge of the planned offshoring would cause fear of job loss amongst the team members and create resistance to the process, despite senior management voicing a strong commitment to not lay off people:

“And even just the thought that there was less opportunity that would be a negative. So one of the challenges is to do this and get it ready to a stage of deployment, when you can't tell anybody. People are wondering, why those people are here, meaning other people in the office trying to map the process, and people getting really nervous, especially when mapping the process: “why are you doing that?” (Decision Facilitator, FIN2)

Under these conditions, the decision-making process was executed almost secretly.

5.6.3 Decision Content

As an output of the workshops a business case was put together. The off-shoring was approved on the basis that it would achieve the required quality and output at a significant lower price point. However, since it was still only a pilot, the existing in-house service would remain intact. But it was clear that the onshore Service Provider, as well as the in-house service, could not compete at the price point offered by the off-shoring provider, meaning that if the pilot would have been successful, most of the power planning would have been moved to offshore, freeing up the onshore in-house team for other work.

The organisation was clear about what it wanted to achieve, and looked at alternative sourcing options. The offshore option had been compared with onshore outsourcing and the in-house service provisioning. Not only had the offshoring been cheaper, but it was also able to provide faster results. While a local power planner needed 3-5 days to complete the power planning activities, an offshorer could do it in 3 days or under, and with the business day starting in India later, had even a time advantage over Australian providers.

Although there was no prior offshore outsourcing experience within this particular division of the financial institution, it was not a first time off-shoring, and it was not the first time experience with this particular Service Provider. The Service Provider was known, had performed other work for the financial institution before, and was acceptable to both businesses:

“And they, as it became apparent that FIN2 has get more used to using them [...] they started to do some work for the life insurance business, which is in the area of claims management, and underwriting, which was always seen as very high level, very expert, very consulting oriented, that was quite surprising, people that would do anything other than answer the phone, or basic admin processing, but they didn’t do that, they did a proper job, so by about early 2007, the proposal was put that we would pilot a outsourcing of power planning.” (Decision Facilitator, FIN2)

In summary, the rationale to approach this particular vendor was strong. The offshoring had been compared with onshore and in-house service delivery options and was found more attractive in terms of price and efficiency.

5.6.4 Decision Outcome

With the Global Financial Crisis (GFC) affecting the market for financial planning, the off-shoring pilot had, at the time when the research was conducted, not turned into a permanent deal. However, the pilot was continued with the expectation that once the GFC had passed, the offshore provider could scale up to take over the growth in the business.

One year after introduction, the satisfaction level with the offshoring pilot was still high:

“Last time I saw it, it was working. The challenge was to spread that across Australia. It worked in the pilot, and we had to do it across Australia. The challenge was more of a physical footprint, finding the space that was suitable, and in changing behaviour.” (Decision Facilitator, FIN2)

5.6.5 Summary

The decision process can be classified as *Idea Imposition*. The decision makers, without any prior experience in ODM (*First Timers*), identified that there was a need to fill a resources gap. And whilst scouting for other options to fill this resources need, an opportunity was identified to jointly source with another organisation that resourced from offshore. Hence, after a short investigation it was stopped abruptly (*Narrow investigation*).

The decision was only implemented as a pilot, and although it has not turned into a permanent solution yet, due to a temporary decrease in demand, management satisfaction with the pilot is moderately high (*Pilot / Quick Wins*). It has the potential to turn into a permanent solution as it is able to deliver high quality results for a much lower price.

All key observations from this case study are summarized in Table 5.5.

Table 5.5 FIN2 Case Study - Summary of Observations

Case Study V (FIN2)	
Decision	Can act (opportunity)
Magnitude of impact	<ul style="list-style-type: none"> • Service is an enabler • Service not a commodity
Threat / opportunity	<ul style="list-style-type: none"> • Opportunity to reduce labour costs
Uncertainty	<ul style="list-style-type: none"> • High, no precedent decision process
Urgency	<ul style="list-style-type: none"> • Low, high employee cost triggered search for labour arbitrage
Pressure	<ul style="list-style-type: none"> • No pressure from senior management • Opportunity to exceed expectations
Frequency / familiarity	<ul style="list-style-type: none"> • Very limited prior experience
Decision maker	First Timer
Prior ODM experience	<ul style="list-style-type: none"> • Consulted staff with prior ODM experience • No use of external consultants
Process type	Idea Imposition
Steps executed	<ul style="list-style-type: none"> • Head of Finance triggered investigation • Investigated only offshore option, some informal conversation with onshore vendors • No tender process • Evaluation of vendor defensively, limited structure
Hierarchical decentralisation	<ul style="list-style-type: none"> • Small project team formed • No external advisors engaged • No board involvement, CEO made decision
Content	Narrow investigation
Breadth of rationalisation	<ul style="list-style-type: none"> • Market not scanned • Only economic evaluation of offer, no other options or dimensions considered
Depth of rationalisation	<ul style="list-style-type: none"> • Brief analysis
Outcome	Pilot / Quick Wins
Benefits attainment	<ul style="list-style-type: none"> • Deal achieved short-term outcomes
Sustained adoption	<ul style="list-style-type: none"> • Deal was not sustained due to collapse in market demand
Management satisfaction	<ul style="list-style-type: none"> • Moderately satisfied with the deal • Deal considered a tactical fix to counteract increasing salary costs in Australia

5.7 CASE STUDY COMPANY VI – RESOU

RESOU is one of the largest, diversified mining organisations in the world, which operates globally. It has a significant operation in Australia. RESOU had for a number of years outsourced most of its IT to one of the largest Service Providers in the world, being SERV1. All of RESOU's divisions globally were provided with IT services under the agreement with SERV1.

In 2006, RESOU started to unbundle the contract with SERV1 and allowed divisions to procure some non enterprise services, that is everything but WAN, Email and global ERP, locally.

The decision under review in this case study is for the local scope of services outsourcing for one of RESOU's divisions located in Australia. One decision maker, a Senior Executive, and two decision facilitators, External Advisors, were interviewed.

5.7.1 Decision Context

The IT function in RESOU plays a major role. As an organisation that has a 24/7 operation (so called "timeless mining"), IT plays an integral support function for the business. The Senior Executive confirmed IT's role:

"IT is essential. It enables our 24/7 operation – timeless mining." (Senior Executive, RESOU)

Due to a significant growth in the demand for resources, RESOU had an opportunity to significantly grow its business. The planned growth in the business meant that the IT area had to adopt and scale up to enable this rapid growth.

A number of projects were initiated to deliver major programs of work. The dependency of the business on IT's performance, not only to deliver the growth, but at the same time ensure continued high availability and responsiveness, was very high; and there was a perceived threat within the business that IT could become a constraint.

SERV1 had been the Service Provider for RESOU for many years. RESOU had outsourced IT in the late 90's to an internal services company, of which RESOU IT was one division. This division was sold off to SERV1 at around 2000. When

RESOU merged with another resources company, SERV1 also took over the service delivery of the then in-house IT of the other resources company.

Through their long relationship with RESOU, SERV1 had gained a lot of knowledge about RESOU, which meant SERV1 had a huge competitive advantage over other service providers that would compete for the contract:

“Industry knowledge is not so important, but knowledge about how we work is critical.” (External Advisor, RESOU)

However, despite having such a long relationship with RESOU, and being one of the world’s largest Service Providers, SERV1 was perceived by RESOU as having become complacent, and their performance ratings were only average. The External Advisor expressed this sentiment as following:

“Their [SERV1’s] delivery is generally Okay – but constrained by the contract. [...] It seems, [SERV1] has become complacent, [...] needs a good shaking.” (External Advisor, RESOU)

The other External Advisor shared that view:

“They [SERV1] are not as good as they are ought to be, but not a disaster either” (External Advisor 2, RESOU)

And also, the Head of Strategy confirming this:

“[SERV1] is not the problem” (Senior Executive, RESOU)

Whilst RESOU was quick to blame SERV1 for their failure to meet expectations, RESOU’s IS strategy also stated that as a function it was not getting the attention it required from the business: *“IT not getting a seat at the business table”*.

5.7.2 Decision Process

The ITO decision process conducted by RESOU followed a very stringent process. A template for the decision process applied was sourced from a leading advisory research organization, which divides the process broadly speaking into four phases:

1. Content & Purpose
2. Analysis of Options
3. Conclusions and Agreement
4. Sourcing Action Plan

The process that RESOU applied was highly formalised, with key deliverables being produced for every milestone, following with great rigour the descriptions in the methodology.

The first phase of the process of defining the content and purpose was done internally by staff within RESOU. The guiding principles that came out of that exercise were kept at a high level and were formulated in very simple words around ease of governance, readiness for growth, etc.

For the second phase, an external consulting organisation was hired to scout the local market for suitable providers that could meet RESOU's needs. The same external consulting organisation continued to advise RESOU to date.

5.7.3 Decision Content

During the options identification, only a few dimensions were considered. Although the scope of services over which the divisions had discretion were predetermined, the number of suppliers and the scope of services each of the providers would be given was decided by the local division. This meant that the organisation was allowing multi-source arrangements, which was a significant change over the past when a single vendor – SERV1 – had been awarded all of the IT services business. However, a major part of the divisional services would have still remained bundled with one of the larger suppliers- such as the incumbent that was ousted at corporate level. During the interviews for preparing the sourcing strategy at a divisional level, the Senior Executive and anecdotally the CIOs of two of RESOU's divisions echoed the same

key message, which was the desire to have the IT contract handed over to an equally large player in the IT field:

“Our objective is to be the third largest company in the world, so we only look to sole source from the largest IT company in the world.” (Senior Executive, RESOU)

This quickly narrowed down the possible number of suppliers to only a few that had global delivery capabilities, including SERV1 (the incumbent). Furthermore, other service providers would find a high entry barrier to quickly ramp up in this market allowing them to take on the service delivery from the incumbent, given the need to have capacity to support remote mining operations, and the lack of other large clients that justify such a risky investment:

“What would be the lead time [for other providers] to build up capabilities here?” (Senior Executive, RESOU)

Other dimensions, such as the length of the term, had to fit in with the global deals that were made. The asset ownership, having had outsourced for a number of years, was again not of question.

5.7.4 Decision Outcome

For RESOU, the total outsourcing of its IT had a long lasting, almost irreversible effect, being that bringing the entire outsourced IT function back in-house would have not been possible. However, despite having kept SERV1 as the sole supplier for a number of years, RESOU had become dissatisfied with the services provided by SERV1, and was ready for change. Further, RESOU’s IT function felt that the business treated IT as a mere order taker, instead of being a trusted partner and enabler, which in effect was due to the lack of leadership provided by the Service Provider, who after eight years had become complacent.

Whilst the division followed a very rigorous process to determine its IT sourcing strategy and approach the market to procure a vendor, a change in global strategy aborted all efforts abruptly. The decision-making was fully brought back to a global level, at which point the research case was terminated by RESOU.

5.7.5 Summary

The decision process was triggered by the upcoming expiry of the contract (*Must act*). The initial phases of the decision process can be classified as *Discovery* process. Although the decision process had been terminated, the organisation was following a rigorous decision-making process. An experienced team (*Routinières*) was assembled, external advisors recruited, and a decision-making process was jointly developed and agreed. The project team went through the initial stages of the decision-making process with an open mind, discovering a wide range of options (*Wide exploration*), assessing external options, including offshoring, with the incumbent's current provisioning and the possibility to bring back services in-house. Services were benchmarked and vendors assessed for their fit to deliver these services. The deal achieved *longer-term alignment*, as the contract with the incumbent was renewed, although with a reduced scope.

All key observations from this case study are summarized in Table 5.6.

Table 5.6 RESOU Case Study - Summary of Observations

Case Study VI (RESOU)	
Decision	Must act (threat)
Magnitude of impact	<ul style="list-style-type: none"> • Service is critical, but a commodity • Vendor has extensive knowledge of organisation after 10 year relationship
Threat / opportunity	<ul style="list-style-type: none"> • Threat from incumbent becoming complacent
Uncertainty	<ul style="list-style-type: none"> • Low, experienced in decision-making
Urgency	<ul style="list-style-type: none"> • High, needed to extend with vendor as contract was about to expire
Pressure	<ul style="list-style-type: none"> • Pressure from senior management to provide stable IT environment
Frequency / familiarity	<ul style="list-style-type: none"> • Experienced, Second renewal of outsourcing contract after close to 10 years with vendor
Decision maker	Routinière
Prior ODM experience	<ul style="list-style-type: none"> • Experienced individuals • Used external consultants to facilitate process
Process type	Discovery
Steps executed	<ul style="list-style-type: none"> • Impending contract expiry triggered investigation • Gathered intelligence (market data) • CEO set direction • Search limited to tier 1 options for prime contract • Evaluation of vendors based on formal method
Hierarchical decentralisation	<ul style="list-style-type: none"> • Project team formed • Stakeholders from business consulted
Content	Wide exploration
Breadth of rationalisation	<ul style="list-style-type: none"> • Market widely scanned, and RFP process intended
Depth of rationalisation	<ul style="list-style-type: none"> • Detailed analysis
Outcome	Long-term alignment
Benefits attainment	<ul style="list-style-type: none"> • Deal achieved targeted outcomes (reduced price to market levels)
Sustained adoption	<ul style="list-style-type: none"> • Model and vendor continued beyond original term
Management satisfaction	<ul style="list-style-type: none"> • High levels of management satisfaction with process

5.8 SUMMARY OF CHAPTER 5

This chapter provided an overview of results from fieldwork in Research Phase 1 as input into the research questions, including the overall decision model proliferation (RQ 1.1 & RQ 1.2), as well as the decision process and decision content contingencies (RQ 2.1, RQ 2.2 & RQ2.3), and related impact of decision process and content on outcome (RQ 2.4 & RQ 2.5).

Decision Model Proliferation (RQ 1.1 & RQ 1.2)

From the review of the cases, it appears that the proliferation of decision models seems limited by a model's ability to support real world decision-making processes. Only two of the models (decision tree and scoring models) were used across the six case studies (MANU1, MANU2, RESOU), in all cases decision makers had prior experience in ODM.

Decision Processes, Decision Content and Decision Context (RQ 2.1)

Looking further into the connection between context factors and adopted decision process (noting that the use of a decision model depends on the adoption of a rigorous decision process), it is found that two context factors have an impact, including the decision maker characteristics and the decision characteristics itself. At INSU, FIN1 and FIN2 inexperienced decision makers (*First Timers*) are found to choose an *Idea Imposition* process, whereas at MANU1, MANU2 and RESOU experienced decision makers (*Routinière*), adopt more formal and rigorous *Discovery* or *Emergent Opportunity* processes. Further, organisations that *must act* (MANU1, MANU2, RESOU) tend to go through a more rigorous assessment of their options (*Discovery* process) using decision models, whereas organisations that identify *opportunities* (INSU, FIN1, FIN2) tend to adopt an *Idea Imposition* process, and are not using a decision model.

Decision Process Impacting Decision Content (RQ 2.2 & RQ 2.3)

When it came to justifying their decisions, organisations that had gone through a more complete process (MANU1, MANU2, RESOU) were more quickly able to respond, whereas other organisations scrambled to provide a response.

The adopted process influenced the choices made. *Routinières*, which had adopted a *Discovery* or *Emergent Opportunity* process (MANU1, MANU2, RESOU), had gone through a wider and deeper exploration of the decision dimensions, hence had a greater understanding of their options, whereas *First Timers* (INSU, FIN1 and FIN2), which adopted an *Idea Imposition* process, skipped the discovery of a number of dimensions, and subsequently had difficulties in explaining their choices.

Decision Outcome, Process and Content (RQ 2.4 & RQ2.5)

Whilst each organisation had achieved some satisfactory outcome with the decision, the organisations (MANU1, MANU2, RESOU) that had done a *wider and deeper exploration* of their decision options were at the conclusion of the deal better able to reconcile outcomes with their choices.

Further, there is also evidence that whilst every decision maker appeared happy with their decision, a *longer-term alignment* was only achieved at organisations (MANU1, MANU2, RESOU) that went through a *Discovery* process.

Table 5.7 provides a summary of the findings from Phase 1.

The next chapter discusses the results from Research Phase 2, which investigates in more in-depth two of the case studies from this chapter. In doing so, it establishes further support for the connections identified in this chapter.

Table 5.7 Summary Findings and Cross Case Analysis

	Case Study I (INSU)	Case Study II (FIN1)	Case Study III (MANU1)	Case Study IV (MANU2)	Case Study V (FIN2)	Case Study VI (RESOU)
Decision	Can act (opportunity)	Can act (opportunity)	Must act (threat)	Must act (threat)	Can act (opportunity)	Must act (threat)
Decision maker	First Timer	First Timer	Routinière	Routinière	First Timer	Routinière
Process type	Idea Imposition	Idea Imposition	Discovery / Emerging opportunity	Discovery	Idea Imposition	Discovery
Content	Narrow investigation	Narrow investigation	Wide exploration	Wide exploration	Narrow investigation	Wide exploration
Outcome	Quick Wins	Pilot / Quick Wins	Long-term alignment	Long-term alignment	Pilot / Quick Wins	Long-term alignment

6 FINDINGS PHASE II: LONGITUDANAL CASE RESEARCH

6.1 INTRODUCTION

Chapter 5 summarized the findings from the Phase 1 Multiple Case Study Research. This chapter will explore the research questions further by investigating in-depth two of the case studies from the previous chapter, INSU and MANU2, establishing if further support for the initial findings can be found. Figure 6.1 below highlights the position of Chapter 6 in the overall research design.

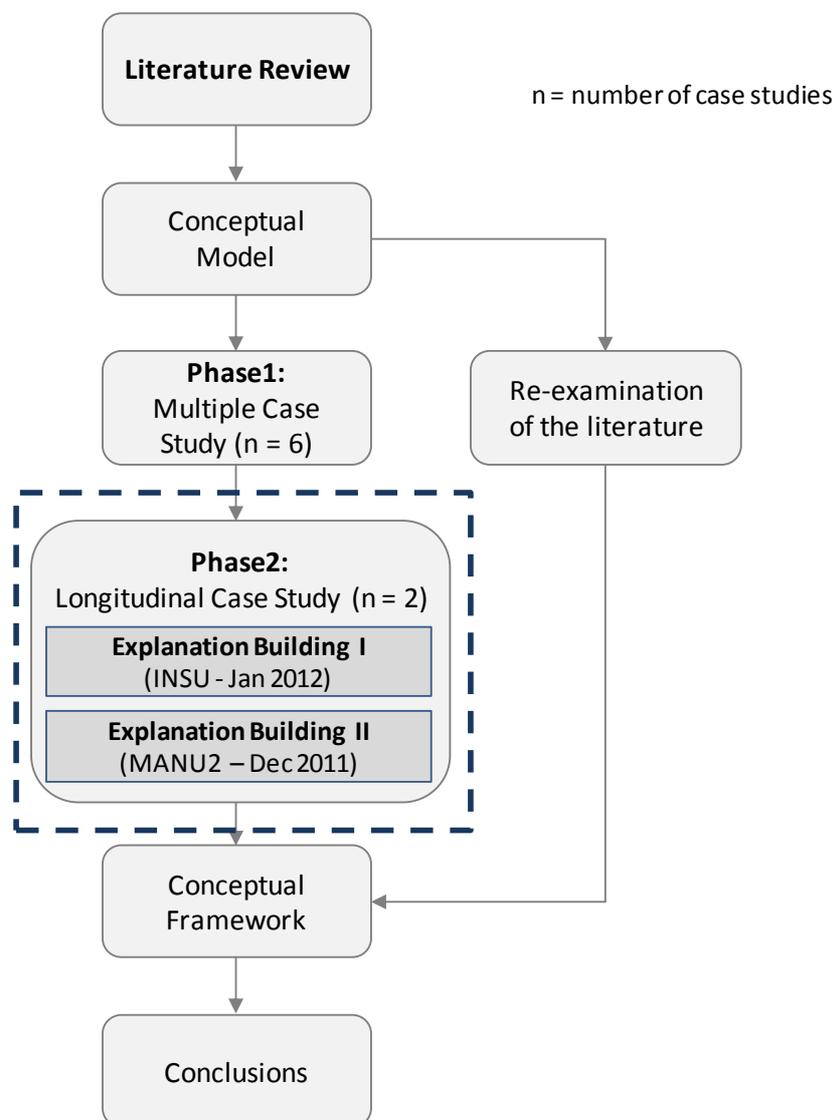


Figure 6.1 Chapter 6 in the Context of the Overall Research Design

6.2 CASE STUDY I – INSU

INSU UK, a global health insurance group based out of the UK, owns through INSU Australia (short INSU) several health insurance brands in Australia. INSU is a major player in the Australian health insurance market providing health insurance products.

INSU had entered in 2005/6 a relationship with an offshore Service Provider, which it had retained till the time of this research phase 2 taking place. The relationship had existed for six years, with INSU now looking for a change in its sourcing of application development and maintenance services. The CIO and Project Manager (Head of Applications) were interviewed.

6.2.1 Decision Context

Having had outsourced for six years, the interviewees pointed out that the sourcing scope had changed. The initial outsourcing had been about resource augmentation, and came off the back of a large project. INSU had decided, without going to RFP, to retain the services of the Service Provider that it already had a relationship with, and to continue that relationship. The CIO said:

*“At the moment, the engagement is predominately resource augmentation, okay.”
(CIO, INSU)*

In review, both CIO and Head of Applications felt that the deal had yielded the results they desired:

“I would say it was successful, yes, I would because I think in some respects we were able to deliver in a way that kept - - that the business was happy with [...] they had [sic] been remarkably stable” (Head of Applications, INSU)

Admittedly, the relationship was not working from the start, but the Head of Applications also pointed out that they had made it work:

“There were a lot of missed expectations that we hadn't articulated on either side. And so, we certainly grew into the relationship and it took quite a while.” (Head of Applications, INSU)

The realisation was that the relationships with any Service Provider needed investment, and INSU had over the past seven or eight years certainly invested its share into the relationship to make it work, hence there might have been a hesitation

to let go of the relationship. However, going forward, the existing relationship was found to no longer suit the organisation, and a further investment in the relationship would have not changed that:

“It's fair to say now that the organisation that we use doesn't have the capability or the capacity to run [Indistinct] in the way that we want to based on our needs.” [CIO, INSU]

Of particular concern was the high staff turnover, which meant that the organisation was losing the knowledge that had been transferred to the Service Provider:

“They have got significantly high staff turnover, and so we've looked at that and started to say well, is there an alternative option to actually deliver the services that we want in a more flexible way? Now, the price point is probably going to be different but is the overall outcome better?” (CIO, INSU)

Of further concern was cost, the driver that got INSU into the relationship in the first place. It seemed to INSU that the Service Provider had been cheap yet inefficient, which the CIO explained as following:

“Yes, I mean, the thing is there are two things you have to look at. One is effectiveness, so that comes down to not just the effectiveness of the team, right. Well, it is the effectiveness of the team I suppose in terms of if you've got a piece of work that needs to be done and you can do that piece of work in 20 days with three people. Great. If there is another organisation, to do that piece of work in 20 elapsed days need eight people, right, the opportunity for error is greater in the second scenario because you've got more people doubling on the code. So, overall, then, the price point might be the same, but you have to say that from an outcome perspective the likelihood is that you're going to get a better result with the first scenario. So, you have to match effectiveness and the price point per whatever the unit is you're measuring in. And even if you go for fixed price, if you go for fixed price you've got to go for outcomes, which is what we want to start looking at, rather than just bodies.” (CIO, INSU)

Not only was the service provider price inefficient according to the CIO, but it had also lost trust from INSU's management as it appeared to them that the Service Provider was actually 'milking' the relationship. The Service Provider appeared to have had charged a similarly high price for their services, as compared to other offshore vendors, but had only passed on a fraction to their staff, which appeared to be underpaid. This made it hard for the Service Provider to retain staff long-term. As

a consequence, the CIO felt that the relationship with the Service Provider had been damaged:

“We were just this enormous cash cow, we lost a lot of trust with [the Service Provider].” (Head of Applications, INSU)

INSU also noted that the Service Provider’s remaining business had declined, hence its ability to scale resources when required was limited, as there was not a large enough resource pool left that would have allowed scaling:

“The main thing is that their business had declined considerably over the years. So, where, when we first started with them, they had a shop of about 3,000 people in the application, development and support space. That 3,000 now is about 300.” (Head of Applications, INSU)

Given this situation, INSU felt it needed to look for alternative vendors. INSU understood that in order to get better outcomes, it needed to create some competitive tension between the different players in the market. One consultancy suggested that in order to introduce more competitive tension a sourcing panel - a group of vendors that would bid for larger pieces of work - should be established:

“What I would like to be able to do is have a couple of vendors so that each time we've got a piece of work that we want to tender.” (CIO, INSU)

Under a model like this each Service Provider holds a Master Service Agreement with INSU, and every time there is a project, the vendors bid by providing a scope of services statement and pricing.

6.2.2 Decision Process

In order to setup Master Service Agreements with one or more vendors, an RFP process was used:

“We're looking at RFP just for the development and support activities.” (Head of Applications, INSU)

“We're going to go for an RFP, and we'll take it from there because at the moment, we're not 100% sure what we're going to get back and we don't know what it will cost to move from the Service Provider [sic]. So, we're in a discovery phase at the moment, and at the moment we think there's probably a better option, but that's why we are going to the market to find out if there is, and what it is, and therefore what it will be.” (CIO, INSU)

Both CIO and Head of Applications said that the business is not particularly interested in the offshoring relationship or RFP itself, but is kept informed:

“We do communicate what we're doing and we take the risks, so it's creating the risk profile for whoever you're dealing with.” (CIO, INSU)

“So yes, the RFP process, there is visibility, about what's going on. How far that extends into the business, I would say not very far at all. In fact, it's most probably only the people that have been directly involved in it, from the procurement area that actually know about it. I don't think any of the executive leadership team know or would even really care to tell you the truth.” (Head of Applications, INSU)

As a consequence, the business also relies on the IT department to make the IT sourcing decision. The IT department has full discretion over the sourcing decision. The reasoning for this was provided by the CIO, who explained that the sourcing decision remained with IT as long as it did not exceed the project budget.

The IT department expressed some sentiment against the lack of interest in the IT sourcing and offshoring that the business displayed:

“They've basically got no visibility of it at all, to tell you the truth, and they never do. They don't really care about our offshore arrangement. In fact, it's one of the things that annoys the hell out of me, is that they just expect it to happen without any effort.” (Head of Applications, INSU)

The CIO had allowed for a period of several months to make a decision:

“Three or four months. It's about three or four months to decide what we are going to do.” (CIO, INSU)

The RFP process was advised by internal people, in particular the procurement area. To the question if the sourcing process was facilitated by an external consultant or in-house, the Head of Applications responded as following:

“In-house, but we are fortunate enough to have some people in our procurement area who have been through this many times – at least a couple of times, not many times.” (Head of Applications, INSU)

The process itself is also planned and highly formalised:

“We've already got all our requirements well and truly defined. We've got the people that are going to review the responses. Yes, that's well and truly defined.” (Head of Applications, INSU)

6.2.3 Decision Content

Whilst the idea of a sourcing panel with several Service Providers who would bid for work appeared attractive to INSU, there was also an argument that a sole source relationship with a single vendor would mean less management overhead:

“In terms of what a single vendor could offer us, because, we don't want to go to too many places” (Head of Applications, INSU)

Another dimension of the decision that was revisited is the location. INSU had experienced through its seven year relationship with the offshore vendor that the offshoring of services was not necessarily the better option, although on the surface it saved costs. The cultural misalignment between the offshore provider and INSU had posed difficulties:

“You know, you can't underestimate the cultural difference in terms of how the data management team you know, view and how they want things to be measured. It's quite different to how we do things in Australia or in Europe.” (CIO, INSU)

But INSU had made an investment into the relationship with the offshore Service Provider to make it work, trying to overcome cultural difficulties, including by frequently exchanging staff - both offshore staff coming to INSU, and INSU management visiting the offshorer's facilities. Whilst it seemed to remediate a lot of the issues, it required a significant investment to the point where INSU felt it was not worth the savings it tried to gain from offshoring. Hence, it was put into the RFP that INSU looked for vendors with onsite presence:

“They would, but also part of what we're putting into the criteria now is, you know, for a lot of them we're looking for vendors that have got an Australian presence.” (CIO, INSU)

Moreover, not only was the location question revisited, but also the question around insourcing the services versus outsourcing them. The Head of Applications confirmed that INSU had contemplated the idea, but discarded it after assessing the pros and cons. To the broader question of sourcing model, both the CIO and Head of Applications say that it was always a consideration. However, having offshore outsourced previously and deemed it a partial success, it seemed more of a hypothetical option to bring services back onshore or even insource services.

However, what was apparent is that INSU felt the Service Provider was no longer deemed a fit, particularly since the Service Provider seemed to lack the investment into the relationship. INSU expected from the provider that they would “... *spend a bit of money to make a bit of money*” (CIO, INSU) .

With INSU making the observation that the vendor was underpaying its staff which resulted in the Service Provider not being able to retain its staff, INSU was looking for more matured vendors with established processes that ensured staff and their knowledge were retained:

“Where you would think the tier 1 providers, who have supposedly got the muscle, this is where they should be establishing what they say, you know, how they make themselves different.” (Head of Applications, INSU)

“A larger vendor [sic] most probably has the ability to mobilise a larger workforce and to be able to do it more professionally.” (Head of Applications, INSU)

However, INSU also appreciated the fact that the previous Service Provider had actually gained insights into the INSU business, and INSU stakeholders had become familiar with the Service Provider’s staff. This level of intimacy could not be expected from a new provider; hence more formality was believed to be required. The CIO was particularly concerned about defining SLAs that would allow a meaningful measure of service performance, again something that was not achieved with the previous Service Provider:

“But, what it means is that we have to be more diligent and more structured around putting SLA's outlays, turnaround times, quality and things like that in place.” (CIO, INSU)

The same concern was similarly expressed by the Head of Applications, who said:

“Most probably got a few things around SLAs that we need to just most probably need to be a little more clear on, because the whole thing is around getting the clarity. Other than that, we'll just be getting hit with questions all the time. So, we want to be very - - well, it's almost prescriptive. The more time we put in it now, the less time we have to put into it later.” (Head of Applications, INSU)

INSU also acknowledged the strategic importance of the deal by admitting that the deal would require a longer term commitment due to the effort it requires to setup a relationship to making it work, again, a direct learning from the relationship with the

previous provider, with whom INSU had a seven year relationship and needed to make a significant investment to make it work:

“I don't think you can [sic] change every year because it's too much time and effort to get a third party up and running. So, I think we're looking at 3 to 5 year deal, so when you sign it need to be sure of it.” (CIO, INSU)

6.2.4 Decision Outcome

The outcome of the RFP process was that the contract with previous Service Provider was terminated. In its place, a new Service Provider was selected. Whilst the previous relationship was considered a partial success, INSU felt it needed to better align with its Service Provider to gain greater efficiencies out of the deal, and it realised that it could only achieve this with a vendor that had an onsite presence, was mature and had better processes in place, and was large enough so it could afford an investment into the relationship:

“Their price point is a lot – [...] They're a lot more expensive, and they still seem to take quite a bit of time, but the outcome seems to be better.” (CIO, INSU)

Further, whilst INSU found that there is significant difference between the incumbent and other vendors, there are also several vendors in the market that are very similar, hence a decision between these may less depend on a formal evaluation but more on “gut feel”:

“And, at the end of it all, I think it most probably comes down to how comfortable they make you feel. Given that you might have a couple of points difference between vendor A or vendor B, you might choose vendor B, even though they might not come in as high.” (Head of Applications, INSU)

Questioned further about how this “gut feel” would be measured, the Head of Applications explained:

“There will be a whole lot of things that will come into play, be it political, gut feel, whether it be scientifically - - as scientific as we can make it, you know. I think if you put it all together you will say there will be something in it, there will be a decision you can live with.” (Head of Applications, INSU)

6.2.5 Summary

INSU, now a *Routinière* in outsourcing decision-making, was under no pressure to act (*Can-act opportunity*) and was seeking to refine its sourcing model. It underwent a *wide-exploration* of options. The decision process can be classified as a *Discovery* process. The process applied included the preparation of an RFP, and encouraged vendors to submit in response proposals for the takeover of the support services. A number of vendors were approached to receive proposals with alternative solutions for considerations (*Wide exploration*). The selection process was highly formalised, with the evaluation criteria being agreed prior to releasing the RFP and an evaluation team assembled to make a selection. For an overview of the case refer to Table 6.1.

Table 6.1 INSU Case Study - Summary of Observations

Case Study I (INSU, 2011/12)	
Decision	Can act (opportunity)
Magnitude of impact	• Service is a critical enabler, not a commodity
Threat / opportunity	• Threat from incumbent having overpriced services
Decision uncertainty	• Low-Medium, experience from previous decision
Urgency	• Low
Pressure	• No pressure from senior management, but a pre-existing contract
Frequency / familiarity	• Prior outsourcing experience – seven year relationship with vendor
Decision maker	Routinière
Prior experience in ODM	• Team is experienced from prior relationship • No use of external consultants
Process type	Discovery
Steps executed	• Team encounters limits of Service Provider • CIO commissions team to gather market intelligence to determine interest and seeking innovation • Preparation of RFP
Hierarchical decentralisation	• Project Team formed • Stakeholders from business informed and consulted
Content	Wide investigation
Breadth of rationalisation	• Market scanned in pre-RFP market engagement • RFP process
Depth of rationalisation	• Detailed analysis (Comprehensive evaluation process)
Outcome	Refinement / Longer-term alignment
Benefits attainment	• Prior deal achieved outcomes, incoming vendor to address some of the shortcomings
Sustained adoption	• Model continues, vendor switched
Management satisfaction	• Management satisfied with deal

6.3 CASE STUDY II – MANU2

MANU2 is an Australian-owned diversified organization offering mining services, chemicals and chemical-based consumer products. It is operating globally and present in over 50 countries. MANU2 has outsourced its data centre facilities and operations since the early 2000s, and went again to market for the provision of all data centre services in Australia in 2004. Following a highly formalised and rigorous decision-making process, MANU2 decided to continue with outsourcing, but switching Service Providers.

The decision to change providers in 2004 is described in Section 5.5. In 2008, the contract that MANU2 had entered into with the Service Provider in 2005 came to the end of its life, hence a decision needed to be made if MANU2 wanted to extend, renew or terminate this relationship.

6.3.1 Decision Context

One complicating factor of the decision had been the change of ownership of the Service Provider. Around the time of the decision, the incumbent provider had been taken over by another Service Provider:

“It's been a renewal. [the Service Provider] was - - so, we renewed with [the Service Provider] once, and I think [the Service Provider] was then taken over with Fujitsu and it has probably been renewed while it has been with Fujitsu as well.” (IT Enterprise Architect, MANU2)

The new Service Provider wanted to retain the relationship with the client, hence left the same delivery team in place and kept the conditions broadly aligned with the original contract, so that MANU2 would renew the contract. When the decision for renewal of the contract came up, a team was formed to oversee the decision. The team comprised mainly of members from the IT leadership team. Asked if the decision was also made by IT Leadership Team, the IT Enterprise Architect responded with yes, explaining that because the level of spend had not exceeded their authority, the decision was made by them:

“I'd say the leadership team. So, in reality, it was an operational decision. And, the decisions that go to the board are at a certain level of spend, and you would be surprised, it's actually not a very big - - there's not a big enough spend for it to go to the board.” (IT Enterprise Architect, MANU2)

This was very similar to the 2004 decision, when also the level of spend was not high enough for the decision to go to the board, although the board was kept informed. The IT Enterprise Architect explained further:

“It would have gone to the board. It would have at least gone to the executive team, but I think it was seen as an expense spend, especially as we were leasing the equipment. So, it doesn't mean that they weren't kept informed. So, [the CIO] probably would have been speaking to the CFO and the CFO from my memory would have been saying, yeah, yeah, just whoever you reckon, as long as it's not more expensive.” (IT Enterprise Architect, MANU2)

Further, the data centre services were seen as commodity type services, which are services that are not providing any differentiating value to the organisation, and also they are offered by a number of similarly capable providers.

Also, since the services were not of any differentiating value, the key objective of the outsourcing was to purely achieve greater efficiency in the provision of services. The Enterprise Architect explained that the services were so generic, that he compared them to the purchasing of photocopy paper:

“We might go to tender for photocopy paper. It's probably not much different. We might spend more on photocopy paper than we do on IT services” (IT Enterprise Architect, MANU2)

Consequently, the review of the contract with the existing Service Provider was more focussed on benchmarking the contract against other market offerings, than on finding new innovative solutions.

Another reason why the board was not particularly interested in the decision, was because the board left the decisions how to run the business to the General Managers of the different business platforms, whereas the board was more focussed on the management of the overall portfolio strategy of the company.

Whilst the perceived lack of differentiating value of the services and lack of interest from the board in the operational running of the company led to disinterest in the decision from the board, the board was kept informed about the decision. Yet, the Enterprise Architect said that this depended on the direction set by the CEO, and could change with a new CEO taking the reins:

“It could change soon, because we're getting a new CEO. [...] So, it could change again. It just depends a lot on people, on how things go.” (IT Enterprise Architect, MANU2)

6.3.2 Decision Process

According to the IT Services Manager, the decision-making process was fairly similar. Where the process differed was the number of Service Providers that were invited to respond to the RFP:

“We started off as a similar process, so we engaged another outsourcing [consultant] - had a project set up. Engaged another outsource consultant to help us through the process of selection, and I think this time we were going to do something a little bit different. We were going to be very select, we were going to only invite sort of - - we asked people to come in and present to us from a holistic, high-level view, of what they could offer before any responses to any tenders.” [IT Services Manager, MANU2]

The decision process was again facilitated by an external consulting company. The consulting company guided the decision makers through a series of workshops, at which the various dimensions of the future service requirements were discussed and formulated. The workshops were attended by 10 – 12 participants. The workshops started off with very open discussions. In the beginning, sourcing dimensions were explored:

“There were numerous sessions. I think the sessions were a lot more open at the start, and as time went on and we - - we had a roadmap for when we would meet dates. As we got closer to the end, the sessions then started making recommendations and asking us to vote on the recommendations, and so initially - - you know, for instance, initially, the sessions might have been how - - you know, there would have been a bit of research on how [the Service Provider] was performing and the benchmarking stuff and that was really for more our information, and we were able to ask questions and interact.” (IT Enterprise Architect, MANU2)

The series of workshops was designed as a funnel for refining requirements. At each workshop, the IT Leadership Team would make decisions towards the final sourcing

model. The decisions were formally requested by the facilitating consulting company and subsequent decisions were captured and documented:

“But, as we started getting closer to the times we needed, there were some decision points, and at the decision points, there would be a recommendation and a request for us to make a decision. It was done quite well because I think we were able to make decisions in the room.” (IT Enterprise Architect, MANU2)

In the workshops the IT Leadership team expressed their satisfaction with the services provided by the incumbent provider. The predominant question was if the services were provided at a competitive market price. The company had the option to tender the services in the market, but chose not to do so:

“We definitely didn't go out to market. I'm pretty sure we didn't go out to market. No, they were using our market research, which is part of the reason we used them.” (IT Enterprise Architect, MANU2)

The reasons for not going to market were mainly around de-risking IT service delivery. According to the IT Services Manager, at the time a major project was under way that saw all of MANU2's business transform onto the same Enterprise Resource Program (ERP) platform, namely SAP. He said:

“The uncertainty around the Project [...] and what was going to happen with it, and data centres etc, etc [sic], so I think we sort of came to the conclusion that it might actually be better for the organisation if we just[...]extended and roll it over and got a bit more of a deal out of - - we had a market and we said I guess can you get to this price for us and then, you know, being the income that you've got, you've got some advantage. [...] We know we're reasonably happy with you, we benchmarked you, you're pretty good. So, the risk, it's really around the risk. So, we wanted to lower the risk in a time of uncertainty.” (IT Services Manager, MANU2)

Instead, the consulting company was asked to benchmark prices using their market research:

“We had the contract benchmarks independently.” (IT Enterprise Architect, MANU2)

The result from the benchmarking was very positive. The service level and pricing that MANU2 was receiving seemed market competitive. The IT Enterprise Architect stated the following:

“The benchmarks showed that we were getting an incredibly good deal, way below the

market rate, so internally we had a discussion that - - we looked at what we were getting from the services, and we were actually quite happy, so not only happy with how much we were paying, but also actually happy with the service level, and we actually developed good relationships with the people inside the organisation.” (IT Enterprise Architect, MANU2)

After the initial benchmarking was completed the company started to engage with the market. Obviously the company was concerned that the provider would become complacent leading to degradation in service quality. The IT Enterprise Architect hence approved of the step to conduct a further market testing:

Our people had developed good relationships, so our thinking was that we wouldn't go to market, but we obviously didn't want to have [the Service Provider] rest on their laurels, so we went through the process of going to market, and we hired - - I can't remember, but we hired an organisation that specialises in going to the market.” (IT Enterprise Architect, MANU2)

An initial briefing given to the providers was followed by informal talks with the individual Service Provider representatives. The Enterprise Architect explained that in the end there were five Service Providers that showed interest and appeared capable of providing the services:

“There was an initial view of looking at a number of suppliers, you know, a wide range. It might have been 20, and they worked with the contract manager, and the contract manager talked about what our organisation was like and what our aspirations work, and they used that as a way to whittle down the list, and when they presented to us I think there were only about five in the list that we looked at, five possible alternatives to [the Service Provider] at the time.” (IT Enterprise Architect, MANU2)

In total, the decisions took about three months. At the end of the process, a number of slide presentations were facilitated by the consulting company that summarized the decisions and formulated what the future state would look like. This served the purpose to recap all decisions points, as well as to confirm support for the decision.

“There were a number of slide presentations to the stakeholders which included the leadership team and some of the business people, and the various topics that were covered included things like when are we going to move? What's going to happen with location? What's going to happen with [the Service Provider]? You know, [the Service Provider] looks like they're up in the market for being purchased. What's going to happen with – you know, how can we reduce the pressure that we have from [the

business] and probably other things as well. Lifetime - there were various discussions around what is the best lifetime for equipment when, you know, actually we extend leases? When should we buy, when should we end the lease, what sort of agreement should we have when the lease ends to extend the contracts? All of those things were highlighted to us.” (IT Enterprise Architect, MANU2)

In the end, the decision was made between the CIO, some key IT stakeholders, including the IT Enterprise Architect, IT Services Manager, and representatives from each of the business units:

“I think it was more thought from [the CIO’s] perspective and discussion between [the CIO] and myself later on that maybe this wasn’t the right time to do a full-on out to the market approach. [the CIO] would have consulted with the leadership teams which had representatives of IT from all around the world - - sorry, from all businesses, and I believe that they ratified that decision, so we were not really in a position to do this, that would be the best for the company, at least in the short- to medium-term, to just roll over for another two to three years, and give us a bit of certainty, find out what the details were, define the requirements of the new Project, which was just sitting there as a project but no one really knew what it meant.” (IT Services Manager, MANU2)

Equally important, it appears that from going through the exercise twice before, the company had accumulated knowledge of the process and was better positioned to execute it. When asked if the company could run the decision process by themselves, the IT Services Manager said yes, but also admitted that they still believed they needed the external consultancy to provide required market knowledge:

“I mean, you could. I still don’t think we have the market knowledge. That’s really what we asked those guys to bring to the table.” (IT Services Manager, MANU2)

Whilst the IT Service Manager further explained that newly hired senior staff in IT would have a more commercial perspective of IT, it appeared that he would still favour to bring in external advisors:

“It’s interesting, because we would have different views of the world in our IT community now given we have different changes in personnel sort of in the higher levels of IT.” (IT Services Manager, MANU2)

Further, by comparing MANU1 and MANU2, another observation can be made. Preparing a go-to-market move to then stop short of actually approaching other vendors is reminiscent of the move by MANU1, which had prepared a full RFP that

had put pressure on the Service Provider by signalling them that MANU1 was ready to terminate the contract, but then decided to negotiate exclusively with the vendor:

“We had to basically said ‘no’, we have changed our mind and we’re not going to tender at this point in time. We didn’t actually, technically, go to market [...] But, there was a bit of a deliberate tactic to actually ... to put [the vendor] on notice.” (IT Services Manager, MANU2)

6.3.3 Decision Content

When entering the go-to-market preparations, the company could leverage a lot of the existing documentation from the prior RFP. This not only expedited the decision-making process, but also allowed reviewing the rationale of prior decisions and referencing some of the context and content:

“There was enough documentation there that we’ve got so, yes, we could still use that. There was quite a lot of process that went in upfront, especially with the outsource” (IT Services Manager, MANU2)

A number of dimensions of the decisions were reviewed in order to determine the future state. Location was one of the more critical factors:

“There’s mitigating factors in those choices, so one of them is the location of the data centres.” (IT Enterprise Architect, MANU2)

Further, as the previous deal was not just about the data centre itself, but had also included in the bundle a lease of the IT server infrastructure, which was now reaching its end of life, a new lease was also to be considered:

“We’re already at end of life, I understand [...] Typically, we aimed to co-terminate those dates. [...] I’m not sure how it works, but we make sure that the dates are lined up so that if we wanted to choose a new supplier, a new outsourcer, that we would go to that outsourcer with new hardware.” (IT Enterprise Architect, MANU2)

However, the IT Enterprise Architect also stated that the Hardware lease was not the determining factor, but that it had just been one factor:

“There wasn’t really any pressure, if you will, from a hardware perspective, to renew with the same vendor.” (IT Enterprise Architect, MANU2)

Another consideration was the experience of the provider. The IT Enterprise Architect confirmed that it was preferred to retain a vendor with experience in their business.

6.3.4 Decision Outcome

The outcome of the decision was that MANU2 renewed its contract with the incumbent provider. The deciding factor was that the company had no appetite for change, as it was satisfied with the previous deal and the benchmarking had confirmed that the deal was competitively priced:

“There's various factors in making these decisions, but, probably the key factor was that we were getting good service. We were getting a very good price, and we were very happy with the supplier, so the effort to go and find the new supplier and go through into a whole bunch of new unknowns was because we didn't really have the stomach for it.” (IT Enterprise Architect, MANU2)

After a long period of service with the same provider, although taken over by a different entity, the only concern was in relation to complacency. The question was, would the new provider, who had taken ownership of the incumbent provider, sustain the high quality of service? On the other hand, MANU2 also felt that the Service Provider, having had the contract for several years, knew MANU2's business and the stakeholders, which would ensure continuity:

“I think it's because they had many years of, you know, the service that the business has been happy with and at a cost that they're aware is quite competitive to other organisations.” (IT Enterprise Architect, MANU2)

However, the deal was kept to a minimum length with an option to terminate only, should complacency have resulted in decreased quality of services. The IT Services Manager said:

“Only I think three years with an option to terminate after two.” (IT Services Manager, MANU2)

6.3.5 Summary

Decision makers at MANU2 (*Routinières*) were under no pressure to act (*Can-act opportunity*). It underwent a *wide-exploration* of options. The decision process can be classified as a *Emergent Opportunity* process. The process applied included the preparation of an RFP, but stopped when it was identified that an exclusive contract renewal would be most advantageous, in particular at a time when there was a high uncertainty about the future organisation's structure. Hence, only the incumbent was

asked to bid, and after a short period of negotiation an extension to the existing agreement was achieved. For an overview of the case refer to Table 6.2.

Table 6.2 MANU2 Case Study - Summary of Observations

Case Study II (MANU2, 2008)	
Decision	Can act (opportunity)
Magnitude of impact	<ul style="list-style-type: none"> • Service is a critical enabler
Threat / opportunity	<ul style="list-style-type: none"> • Complacency at Service Provider's end triggered review
Decision uncertainty	<ul style="list-style-type: none"> • Medium-High, experience from previous decision
Urgency	<ul style="list-style-type: none"> • Low-Medium, found that it received sub-standard service
Pressure	<ul style="list-style-type: none"> • No pressure from senior management, but a pre-existing contract
Frequency / familiarity	<ul style="list-style-type: none"> • Prior outsourcing experience
Decision maker	Routinière
Prior experience in ODM	<ul style="list-style-type: none"> • Team is experienced from prior relationship • No use of external consultants
Process type	Emerging Opportunity
Steps executed	<ul style="list-style-type: none"> • Team encounters limits of Service Providers • CIO commissions team to gather market intelligence to determine interest and seeking innovation • Preparation of RFP
Hierarchical decentralisation	<ul style="list-style-type: none"> • Joint idea by IT Steering Committee • Small project team formed • Extensive consultation with stakeholders from business • No board involvement (scale too small)
Content	Wide exploration
Breadth of rationalisation	<ul style="list-style-type: none"> • Comprehensively evaluated options and dimensions • Tendered services to market
Depth of rationalisation	<ul style="list-style-type: none"> • Detailed analysis
Outcome	Long-term alignment
Benefits attainment	<ul style="list-style-type: none"> • Deal achieved targeted outcomes (reset pricing mechanisms)
Sustained adoption	<ul style="list-style-type: none"> • Model and vendor renewed
Management satisfaction	<ul style="list-style-type: none"> • High levels of management satisfaction with process and resulting arrangement

6.4 SUMMARY OF CHAPTER 6

This chapter has explored in-depth the decision-making at two of the organisations from the Phase 1 Multiple Case Study Research, INSU and MANU2, adopting a longitudinal research design.

Particular focus of Research Phase 2 was to further establish evidence for the connection between process and content being impacted by context, and outcome being impacted by process and content.

Decision Process and Decision Content Contingent on the Decision Context (RQ 2.1 – R.Q 2.3)

The two case study organisations had for their decision-making, when reviewed as part of the Phase 1 Multiple Case Study Research, adopted different decision-making processes, which had led to different results.

Revisiting the case study organisations in a longitudinal design, it was found that both case study organisations had changed their decision-making this time.

INSU, which had adopted at the initial decision in 2003 an *Idea Imposition* process, adopted at the next decision point in 2011/12 a *Discovery* process.

MANU2, which had adopted a *Discovery* process in 2004 also altered their decision-making, with the decision in 2008 following an *Emergent Opportunity* process.

Decision Outcome as a Result of Process and Content (RQ 2.4 & RQ 2.5)

The results of INSU's initial decision in 2003 to outsource had been viewed as moderately successful, allowing the organisation to address a short-term resources gap that allowed coping with an increased program of work. The 2012 decision to award a new Service Provider the contract was made in the hope that a longer term alignment would be achieved, providing justification for the *wide exploration* of options using a *Discovery* decision making process.

Table 6.3 and 6.4 provide a summary of the findings for MANU2 and INSU from both Research Phase 1 and Research Phase 2.

The next chapter provides a comprehensive discussion of all research questions raised in Chapters 2 and 3 of the thesis.

Table 6.3 Longitudinal Comparison of Case Study INSU

	Case Study I INSU (2005/6)	Case Study I INSU (2011/12)
Decision	Can act (opportunity)	Can act (opportunity)
Decision maker	First Timer	Routinière
Process type	Idea Imposition	Discovery
Content	Narrow investigation	Wide investigation
Outcome	Quick Wins	Refinement / Long-term alignment

Table 6.4 Longitudinal Comparison of Case Study MANU2

	Case Study 2 MANU2 (2005)	Case Study 2 MANU2 (2008)
Decision	Must act (threat)	Can act (opportunity)
Decision maker	Routinière	Routinière
Process type	Discovery	Emergent Opportunity
Content	Wide exploration	Wide exploration
Outcome	Long-term alignment	Long-term alignment

7 DISCUSSION

7.1 INTRODUCTION

This chapter discusses the findings from the case studies in the previous two chapters, and draws research conclusions in response to the two main research questions and associated sub-questions thereby contributing to the extant literature and building theory. This chapter adopts the following structure. Sections 7.2 and 7.3 navigate each of the 2 main research questions and associated sub-questions raised in Chapter 3. Section 7.4 re-introduces the conceptual framework and highlights the changes made to its original form since introduction in Chapter 3. The position of this chapter in the overall research design of this thesis is depicted in Figure 7.1.

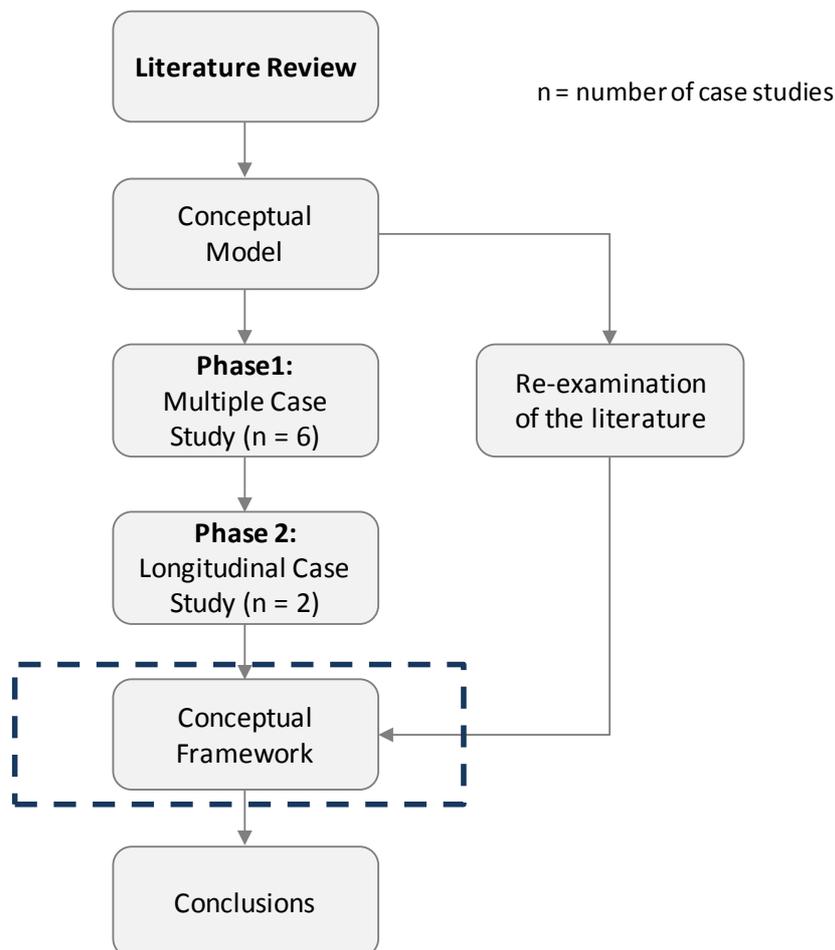


Figure 7.1 Position of Chapter 7 in the Overall Research Design

7.2 RESEARCH QUESTION 1: ADOPTION OF DECISION FRAMEWORKS AND MODELS

RQ 1: How do real world decision makers approach an outsourcing decision, and what influences the adoption of decision frameworks and decision models?

The decision-making process was approached quite differently at the various case study organisations. First of all, the different decision models seem to fulfil individual purposes. The following Section 7.2.1 discusses the findings around the application of the decision models. Further, the proliferation of decision models appears to be dependent on a number of factors, including the prior experience of the decision makers, the use of external advisors, and the need to justify the decision. These are discussed in Section 7.2.2.

7.2.1 Application of Models to Stages

RQ 1.1: What decision models are used during each stage of the outsourcing decision-making process?

From the first phase of field work, it was found that only two types of models were used. In all cases, the initial number of sourcing options was reduced by elimination, using the process stages. This is synonymous with the decision tree models, whereby at the beginning of the tree ‘all options are on the table’, and by the end of going through the tree (the process) the number of options is, step by step, reduced to a final option. However, none of the decision makers had, in any of these cases, formally documented or mapped out a path through such a model, hence it was more of a natural funnel to down-select options.

In the example of MANU1, the initial set of options included insourcing. However, by the time the recommendation for a re-negotiation was put together, the insourcing option had been eliminated by simply providing a rationale to the executives that rebuilding IT was not a core competency.

Equally, RESOU, MANU2 and INSU had eliminated the insourcing option early in the process, because all three organisations had classified IT as a non-core competency, hence did not want to invest into re-building it.

In summary, whilst overall the number of options was reduced when progressing through the process, which is a principle of the decision tree models, the decision tree models were not directly used in any of the case studies.

The Decision Model Taxonomy developed in Chapter 2 explains these findings. Whilst decision tree models seem useful as a template for a process flow (funnel to down-select options), it appears that they are too simple to reflect real world decision-making, hence are only adopted through some of their principles, as opposed to serving as the actual decision model. Hence, the first research conclusion:

RC.1: Decision Tree Models are not directly adopted due to their limitations, but principles of it are embedded in the overall decision process, i.e. step wise elimination of vendors throughout the decision process.

A key difference between the various case studies is in the later part of the decision process, where out of a remaining few options a final, preferred option was selected that would be presented to the board. At MANU1, MANU2 and RESOU scoring models were used to assist with this selection. However, the filtering of a final, preferred option was only formalized with established rules at one case study organisation, MANU2, where an external advisor ensured the applied weighted scoring model was used effectively. In MANU1, where the adoption of a *Discovery / Opportunity Validation* process was identified, the decision makers did use a weighted scoring model, however, only to justify their choice of a preferred option. Decision facilitators at MANU1 and MANU2 confirmed that they found scoring models practical, in particular when it comes to providing an overview of all options, and comparing them side by side.

This directly contradicts findings by Brannemo (2005), who finds in her case study research in the SCM outsourcing area that although practitioners acknowledge some of the insights provided by the decision models, none of the practitioners she interviewed used them. Similar findings are reported by DeLooff (1995) from case study research in the area of ITO.

At FIN1, on the other side, a weighted Scoring Model was used, but with significant bias from a key influencer who championed his proposed idea, which was then influencing other decision makers leading to a biased assessment of the options. INSU

and FIN2 did not use a weighted scoring model due to the absence of alternative options.

In summary, scoring models find wide adoption. Hence, the second research conclusion:

RC.2: Scoring Models are adopted for the vendor selection stage, due to their inherent properties (not limited in number of options evaluated, not limited in number of factors considered).

Whilst none of the organisations used a heuristic model, the literature suggests that decision models are applied in the real world. It is possible that organisations which have not outsourced apply these models to determine a course of action; in particular where the decision poses to be more complex and a portfolio of services need to be reviewed. Organisations that would outsource a wider service offering need to keep abreast over the potential drawbacks and opportunities per service offering. In these instances, a portfolio view / matrix view would yield great benefits. However, the cases originally described in the literature (compare Gerigk (1997)) do not specifically point out this advantage. Yet, where this approach is often adopted, is in the market research that is provided by commercial research companies, for example to give an overview of different vendors, their services offering and maturity of service delivery. Again, these portfolios are readily available from firms like Gartner and IDC, and assist in the selection of a preferred vendor. Hence, the third research conclusion:

RC.3: Heuristic / Portfolio Models are useful in the strategy setting stage and vendor selection stage, when precise inputs are not available, and it is of advantage to facilitate a discussion to reduce complexity.

7.2.2 Inhibitors to Adoption of Models

RQ 1.2: What are the inhibitors in adopting outsourcing decision models?

Brannemo (2005) finds in her case study research in the SCM area that although practitioners acknowledge some of the insights provided by the decision models, none of the practitioners she interviewed used them. Based on this, she posits that the decision models require too many resources, were not known within organisations, and were seen as being “*just theoretical models and were never tested in real life*” (Brannemo, 2005, p. 557). This in turn supports Vroom and Searle’s (2003) finding, that many decisions fail because of missing participation. Without a strong support of the decision process with decision models, powerful decision makers decide at their sole discretion about outsourcing, without appreciation for the implications of their decision. A similar finding, in the area of IT, is made by DeLooff (1995, p. 290) who writes that: “*a formal method of IS outsourcing decisions was not used in any of the cases*” he studied, due to the belief among decision makers that models were “*not available*” (DeLooff, 1995, p. 290) and decisions were anyway “*too strategic or too political to be captured by any decision model*” (DeLooff, 1995, p. 290). In summary, the literature suggests that it is the decision maker’s or decision facilitator’s belief that the models are either insufficient or non-existent, which inhibits adoption.

This study provides further insights into what inhibits adoption, and finds that experience, or lack thereof, is a key inhibitor.

In the case of MANU1, MANU2 and RESOU, all *Routinières* in the decision-making, decision models were adopted. Decision makers at these organisations had prior experience in decision-making, and appreciated the value from adopting decision models, in particular the greater level of transparency, the ability to engage other stakeholders in the evaluation and ability to facilitate discussions.

In the case of INSU, FIN1 and FIN2 on the other hand, all three *First Timers*, the decision makers had no or very limited prior experience in the ODM. Decision models as such were not adopted in these organisations.

It is concluded, that the main influence on the selection of a decision model other than the adoption of a decision tree type process that serves as a funnel for options seems to come from previous experience, both in terms of the organisation as a whole as

well as the individual experience. This contradicts both Brannemo's (2005) and DeLooff's (1995) findings of virtually no adoption of any model. In the three cases the decision makers / facilitators knew of the scoring models and thought they provided value in terms of demonstrating objectivity and transparency to either the board or senior executive management. Hence, the fourth research conclusion:

RC.4: The adoption of a decision model is influenced by the decision makers' previous experience in decision-making. More experienced decision makers are more likely to adopt decision models due to their greater appreciation of the value of decision models.

In cases, where the organisation had previously outsourced, the *Routinières* (MANU1, MANU2, RESOU), the decision makers always procured external advisors to help guide the process. Furthermore, these organisations used external advisors throughout the decision-making process, and followed their guidance. The external advisors were in all three cases recommending the use of a decision model, as it was part of their proposal to demonstrate expertise, which allowed the client to conduct informed decision-making, and helped to facilitate greater transparency in the decision-making to ensure that their work is seen as objective and conclusive. Hence, the fifth research conclusion:

RC.5: Experienced decision makers are likely to recruit external advisor, to assist in the decision-making. Where external advisors are used, the adoption of a decision model is more likely.

Further, if the decision-making is delegated down to so called decision facilitators, these decision facilitators are likely to adopt at some stage of the decision process decision models. This is done out of concern about the decision makers perceptions around the objectivity of the decision-making process, as decision models allowed the decision facilitators to demonstrate a greater degree of rationalisation of their recommended options. Examples of this are MANU1 and RESOU, where project managers oversaw the investigation of the decision-making process and results were reported to the CIO and board for further evaluation and ultimately the sign-off of the decision. In the case of FIN1 a decision model was adopted, but limited in its use because inputs were significantly skewed towards a preferred option that had been

predetermined. Again, the adoption of the model was driven by the need to justify the decision. On the other hand, where decision facilitators were not used or played a small role in the facilitation of the decision, i.e. by focussing on gathering of market intelligence, as opposed to leading the decision-making process, and the decision process and outcome was in the main directed by the most senior decision maker, no decision model was adopted (INSU and FIN2). Hence, the sixth research conclusion:

RC.6: The need to justify a decision positively impacts the adoption of a decision model.

7.2.3 Conclusions for Principal Research Question 1

RQ 1: How do real world decision makers approach an outsourcing decision, and what influences the adoption of decision frameworks and decision models?

From the above discussion, a number of research conclusions were drawn in response to each of the sub-questions. Firstly, it was discussed that all organisations had approached their ODM quite differently, with different levels of adoption of decision models. Adoption of related models is impacted by the decision makers' prior experience, and the need to justify their decision.

RC.7: Decision Makers approach their outsourcing decisions differently, with two factors impacting the adoption of decision models, being the need to justify the decision and the decision makers' prior experience in outsourcing decision making.

Secondly, it was discussed that different decision models, fulfilling particular purposes, have found limited adoption in the ODM. Decision tree models found no direct adoption, only principles of these were applied. Scoring models were widely adopted for the vendor selection. Heuristic / portfolio models were only used by market research firms to benchmark, but were not found to be adopted directly in the decision making processes. For the principal research question, it is concluded in summary that the limitations of the individual models, not the lack of knowledge about them as posited by Brannemo (2005), impacts their adoption.

RC.8: The overall limitations of the decision models impact their adoption throughout the different stages of the outsourcing decision making process.

7.3 RESEARCH QUESTION 2: DECISION OUTCOMES RELATED TO DECISION PROCESSES

RQ 2: What is the connection between the outsourcing decision-making process and the outcome of the outsourcing decision?

In all cases reviewed, the group of decision makers, decision facilitators and contributors stepped through a decision process to make an outsourcing decision. The decisions investigated included, whether to offshore application development (INSU, FIN), or to renew an infrastructure outsourcing contract (MANU1, MANU2). The six case study organisations adopted different decision-making processes. To make a connection between the decision-making processes and the decision outcome, it is first discussed what impacts the adoption of the decision-making processes (Section 7.3.1) and how the adopted process impacts choices (Section 7.3.2). This is followed by a discussion of the impact of choices on the decision outcome (Section 7.3.3), and the impact the actual decision-making process has on the outcome (Section 7.3.4).

7.3.1 Adoption of Decision Processes

RQ 2.1: What impacts the adoption of a decision-making process type?

Of the many context factors that were identified from the academic literature (Section 3.2.4), only few were found to impact the adoption of a decision process type. Factors that appeared to have no impact include firm characteristics, and IT characteristics. All factors are further discussed in the following.

7.3.1.1 Firm Characteristics

Whilst all case study organisations are large, there are considerable differences in scale, not to mention that there are significant differences in terms of their industry type. Whilst the two manufacturing organisations (MANU1 and MANU2), the resources organisation (RESOU) and one of the financial organisations (FIN1) are similar in size, the other financial organisation (FIN2) and the insurance organisation (INSU) are comparatively smaller in size, yet still classified as large organisations with several thousand employees. In terms of their location, all organisations are the same, with all organisations being Australian-based.

From the data collected, no connection could be identified between firm characteristics and chosen decision process type.

7.3.1.2 IT Characteristics

In terms of the IT characteristics, the organisations also differ. Whilst all organisations acknowledge the importance of IT to their business operations, some organisations, in particular the manufacturing (MANU1 and MANU2) and resources organisations (RESOU) have a high dependency on the particular IT services being considered for outsourcing or outsourcing renewal - being the data centre operations for their production control systems.

The financial institutions (FIN1 and FIN2) and insurance organisation (INSU), being conservative organisations, have shielded their data centre from outsourcing, but were considering some non-operation critical services such as applications development services for outsourcing.

The large financial institution (FIN1), has many more services centralised, being conservative in nature, it is willing to pay for maintaining control. Some peripheral services are outsourced, but the core banking systems are all run in-house.

The smaller financial institution (FIN2) and insurance institution (INSU), however, have to a large extent, if not all services, centralised and run their IT services in-house.

The resources organisation (RESOU), as well as the manufacturing organisations (MANU1 and MANU2) have all a partly federated IT, with the different businesses and divisions allowed a high level of discretion in terms of the outsourcing decision for part of their services portfolio. These services include all non-corporate services such as data centre hosting, LAN, and some business applications, which the regional/local businesses can procure independently of corporate IT. The scale of the operations of these very large organisations that have many divisions almost necessitates such an arrangement, whereby an attempt to centralise all of the IT services may lead to significant diseconomies, which has been previously shown in research (compare Vining & Globerman, 1999).

From the data collected and above discussion, no connection could be identified between IT characteristics and chosen decision process type.

7.3.1.3 Decision Characteristics

Both Nutt (2000) and Mintzberg et al. (1976) ponder the possibility that low urgency decisions cause less formal decision processes to occur. Mintzberg et al. (1976, p. 254) writes: “*Perhaps opportunities do not require much investigation—there is nothing to correct, only something to improve*”.

Two of the six cases (INSU, FIN) provide support for this, as they all relate to first time outsourcings. At these two case organisations the decision was around piloting off-shoring. None of the two cases had any urgency to change from the existing in-house Service Provider to an offshore outsourcing provider. In these two cases, a senior executive saw an opportunity and proposed the idea, commissioned a small team to investigate, and executed a short decision process. Little data gathering was conducted, and a more comprehensive market scan was skipped in place for a defensive evaluation of the proposed idea. This matches Nutt’s (2008) description of an *Idea Imposition* process. It appears that the case evidence supports the proposition drawn from the SDM literature, which is that in organisations that have not previously outsourced the identification of an opportunity, and lack of urgency to make a decision, leads to the adoption of an *Idea Imposition* process. Hence,

RC.9.a: In organisations that have not previously outsourced, the identification of an opportunity and lack of urgency leads to adoption of an Idea Imposition process.

Nutt (2000) suspects from his quantitative data that urgent decisions, although granted more resources to support the assessment, may due to time pressure adopt tactical shortcuts. Similarly, Mintzberg et al. (1976, p. 254) says that “*intense problems and crises may produce time and cognitive pressures that discourage the use of formal diagnosis*”. The data from the two cases (MANU1, MANU2), however, show that despite growing urgency, such as the impending expiry of a contract, as was the case at MANU1 and MANU2, the organisations stuck to the rigour imposed by the *Discovery* process. The fact that the decision process was laid out in a plan, with

phases and related steps to go through, gave decision makers confidence that they could manage the time left to make the decision without cutting corners. Hence,

RC.9.b: In organisations that have previously outsourced, the perceived need to act and the urgency of the decision will be met by adopting a Discovery process.

See Table 5.7 for a summary of the case evidence.

7.3.1.4 Decision Maker Characteristics

Papadakis et al. (1998) finds a connection between the CEO characteristics, such as his risk propensity, that influence the process (rule formalization, lateral communication). He explains that: “*such result is intuitively expected, since risk takers usually break the bounds of organisational systems and formalities and influence the SDM process towards more informal paths*” (Papadakis et al., 1998, p. 131).

The case study evidence supports this, as it appears that the level of prior project experience impacts the adoption of a process type (selection of tactics).

INSU, FIN1, and FIN2 were considering the scope of services for outsourcing for the first time (*First Timers*). At INSU and FIN2 the decision makers stated that they had come up with the idea to outsource. All displayed a great deal of ownership and claimed it was “their” area that they were seeking to improve, and “their” idea to pilot the offshoring. Further, all the decision makers had little direct experience in making outsourcing decisions.

Moreover, with many of the ITO decisions in the order of magnitude of several million dollars per year, most organisations requiring their board to approve of the decisions. In order for the board to make a decision, teams are formed (the decision facilitators), who prepare the decision in the form of board papers that substantiate a recommendation to the board, and assisting it in their decision-making. Also, external consultants offer their advice and specialist outsourcing knowledge to assist the decision facilitator teams with the ODM process.

However, none of the *First Timer* organisations sought external advice. They firmly believed they could run the process internally without the assistance from external advisors. INSU, in particular, omitted a number of steps, including a formalised

market scan, as it followed the *Idea Imposition* process. Equally, FIN2 seem not to have conducted a real market scan, also in this case the process was an *Idea Imposition* process.

Their project teams tried to meet the expectation of the senior executives by rationalising the quasi predetermined decision in a fast-tracked process.

In conclusion, organisations with little or no experience from prior outsourcing (*First Timers*), will go through the process without recruiting external advisors. Instead, an idea by a powerful stakeholder is followed, the process used to justify the idea, and the process executed being far less formal with some steps being skipped, i.e. INSU and FIN2 were not conducting a formal market scan (or in other words an *Idea Imposition* process is followed). Hence,

RC.10.a: In organisations that have not outsourced previously, the lack of outsourcing decision-making experience leads to stakeholders adopting an Idea Imposition process.

This confirms the identified connection between the decision maker experience and chosen type of decision process. Whilst *First Timers* seem to opt for an *Idea Imposition* process, *Routinières* tend to adopt a *Discovery* process.

However, some authors have argued that “*past strategies can constraint managerial actions by limiting the consideration of new alternatives*” (Rajagopalan et al., 1997, p. 235), in particular when the present situation is similar to the past situation managers would allow themselves only few options to consider (Elbanna & Child, 2007), but data from this study seems to contradict this.

Contrary to expectation from the literature, the experience of the *Routinières* helped them to plan and execute a more formalised, rational decision process that explored wide options. The three largest organisations, the resources organisation (RESOU) and the two manufacturing organisations (MANU1 and MANU2), all *Routinières* who had outsourced their IT services before, explored a wide range of options.

Moreover, as was concluded in section 7.3.1, the organisations with a history of outsourcing such as MANU1, MANU2 and RESOU (all *Routinières*) had staff with outsourcing experience, who were pulled into the decision facilitator teams. In

addition, these organisations also recruited external advisors, assisting their decision making teams to go through a more rigorous process that aligns with industry practice and academic descriptions of decision-making process steps, including the use of decision models (or in other words a *Discovery* or *Emergent Opportunity* process was followed).

The external consultants have specialist outsourcing knowledge that the decision facilitator teams leveraged. Although the consultants did not advise in all cases the organisations on all phases of the decision-making process, in particular the initial strategy setting was in all organisations done by internal resources, the consultants were subsequent to the initial strategy setting assisting the team with the execution of the decision-making process. This involved a review of the strategy, an as-is analysis and to-be definition, options scan, and the evaluation and selection of the best fit option.

Whilst MANU1 had experience in outsourcing, the fact that they recruited consultants for decision-making support, in particular advice and execution of the decision-making process, indicates an appreciation of the complexity of the process, the knowledge required to conduct a complete process and the belief that such expertise leads to greater success.

Similarly, MANU2 engaged a consultancy to run the process, ensuring that the process would be transparent and unbiased, given that the process would involve an open market tender, which always involves the risk for the tendering organisation that the market may perceive the tendering organisation's intentions as benchmarking, not tendering.

In summary, the level of rigour was further reinforced by hiring external consultants to advise on the planning and implementation of the decision process.

Further, since MANU1 and MANU2 had already outsourced prior to the decision under investigation and the decision process was triggered as part of the normal contracting review due to an impending expiry, the responsibility for executing the decision process and investigating options was relegated to middle management, who felt it needed to follow a more formalized, rational process (*Discovery* process) to allow justification of their sourcing recommendations to senior management. Nutt

(2000) explains that middle managers are less inclined to act unilaterally, as they “*must be prepared to defend what they propose to higher ups*” (p. 178).

As per discussion above, it is concluded from Research Phase 1 that organisations with experience in ODM (*Routinières*), tend to adopt an *Emergent Opportunity* process or *Discovery* process.

Research Phase 2 provides further support for this. MANU2, being a *Routinière*, had adopted a *Discovery* process in 2004, and again in 2008 conducting a *wide exploration* of options, which stopped the *Discovery* process in favour of an *Emerging Opportunity* process.

INSU, who had adopted an *Idea Imposition* process when deciding to outsource for the first time (in 2005), had gathered experience in outsourcing over the four years of the contract (now considered a *Routinière*), had changed for the renewal of their first outsourcing agreement in 2011/12 to follow a *Discovery* process.

Hence, the following research conclusion:

RC.10.b: In organisations that have previously outsourced, the experience of the decision makers leads them to adopt a Discovery process.

For an overview of the case evidence that supports the above research conclusions, refer to Table 5.7 for Phase 1, and Tables 6.3 and 6.4 for Phase 2.

7.3.2 Context Impacting Choices

RQ 2.2: How does the context influences the discovery of outsourcing decision dimensions?

In section 7.3.1 it was described, how at the end of a decision process, decision facilitator teams would submit a recommendation to the board to get approval for their decision. When comparing the rationale that was provided in the resulting decision papers in the different case study organisations, it is found that all interviewees could reasonably justify and defend their decisions. However, when diving into each sub-decision, for example when asked why an organisation did not go multi-source, or why an organisation would go offshore, the organisations that had gone through a more complete process, such as MANU1 or MANU2, were quickly able to respond and provide a rationale, whereas organisations such as INSU and FIN1 scrambled to provide a response.

Further, the organisations that had used a weighted scoring model to determine a best fit option, such as MANU1, MANU2 or RESOU, had often collated a list of evaluation criteria needed to assess the sourcing options. By making an effort to developing these criteria, the organisations' decision makers considered the criteria. Other organisations that did not apply a weighted scoring model, but rather eliminated options merely as part of the process, had simpler justifications as to why they shortlisted and finally selected certain options.

It is summarized, that decision makers, who had prior experience in outsourcing, have a better understanding of the breadth of options available from the sourcing market. MANU1, MANU2 and RESOU (all *Routinières*) went through a *Wide exploration* of choices, whereby the market was scanned, often involving a tendering process. Notably, these organisations also issued Request for Proposals (RFPs) that allow vendors to provide alternative solutions and suggestions as part of the RFP response, as opposed to issuing Requests for Quotations (RFQs) that only look for a price for requested services. Hence, the following research conclusion:

RC.11.a: Decision Makers that have experience in outsourcing approach the exploration of choices more widely.

On the other hand, FIN1, FIN2 and INSU (all *First Timers*) went through a *Narrow Investigation*, with mostly no or only RFPs that targeted a specific model (such as offshoring). Hence, the following research conclusion:

RC.11.b: Decision Makers that have no prior experience in outsourcing approach the exploration of choices more narrowly.

For an overview of the case evidence that supports the above research conclusions, refer to Table 5.7 for Phase 1, and Tables 6.3 and 6.4 for Phase 2.

7.3.3 Decision Processes Impacting Choices

RQ 2.3: What influence does the decision process have on determining the choices for each dimension of the outsourcing decision?

Dean and Sharfman (1996, p. 389) find that "*Decision processes influence the strategic choices managers make, which in turn influence the outcomes affecting a firm*".

Comparing the depth of the decisions from the case research, it is found that many of the organisations have only a limited understanding of the various sub decisions involved and their impact on the result of the actual outsourcing decision. From this, following high level research conclusion is developed:

RC.12: The comprehensiveness of content discovery is affected by the adopted process type.

Through close examination of the actual cases, more specific research conclusions are drawn (deVaus, 2001). These are further discussed below.

MANU1 and MANU2 followed a *Discovery* process that included a comprehensive scan of the market. Further, when MANU2 and MANU1 (*Routinières*) were asked about the selection of the length of the contract, both organisations responded that various factors were considered, including asset lifecycle, the return of investment period from the vendor, and other best practices considerations. Also, when the organisations were asked about multi-sourcing the services vs. sole source the services, only MANU1 and MANU2 had a rationale at hand, being that multisource was considered and would be progressively achieved, but that at the time the overhead

it causes and experience required to manage it were still to be determined and further investigation was needed.

Whilst MANU1 turned into an *Emergent Opportunity* process after discovering an opportunity to renegotiate the contract with the incumbent, it still followed a rigorous, highly formalised process remaining open to re-engage with the market in a full tender.

In summary, from the data collected it appears that *Routinières*, which had adopted a *Discovery* or *Emergent Opportunity* process, had gone through a wider and deeper exploration of the decision dimensions. Hence,

RC.13.a: The adoption of a Discovery process leads to a wider exploration of options.

In contrast, at INSU and FIN2, where the decision makers saw an opportunity, the decision process was cut short and only a limited number of options were identified. INSU did not use a decision model to aid the decision. When INSU (*First Timer*) was asked about the length of the contract, INSU responded that the contract had already expired and just continues to run without being reviewed. Fixing a contract term seemed not to matter. This is in spite of the length of the contract being a significant factor for pricing.

And although FIN1 used a weighted scoring model, completion of it lacked formality. Whilst the *Idea Imposition* processes did discover some relevant decision dimensions, the number of dimensions explored and depth of rationalisation was low.

It is not disputed that all decision makers gave thought to some of these considerations, however, without a formalized process and clear documentation, it was difficult for decision makers to recollect details of the decision.

From the case evidence it appears that *First Timers*, which adopted an *Idea Imposition* process, skipped the discovery of a number of dimensions. Hence,

RC.13.b: The adoption of an Idea Imposition process results in a very narrow exploration of options.

For an overview of the case evidence that supports the above research conclusions, refer to Table 5.7 for Phase 1, and Tables 6.3 and 6.4 for Phase 2.

7.3.4 Choices Impact on Outcomes

RQ 2.4: How do the choices for each dimension of the decision impact the overall outsourcing decision outcome?

All case study interviewees claimed to have achieved envisaged benefits through the outsourcing arrangement.

RESOU stated that IT is not their core competency and that they had reduced their own capabilities needing to rely on the competencies of the vendors, and leveraging their expertise, and being able to continue with this strategy meant that business could continue on what was considered core competency – the expansion of their mining operations. Similarly, MANU1 was not interested in rebuilding IT in-house, freeing up particular capital that was needed for investment into the business and maintaining management capacity to focus on the actual core business, which was under threat in a highly competitive market with low margins.

INSU and FIN1, both trying to address an emerging resources need, found the required talent pool offshore. Equally, FIN2 resourced offshore to gain greater cost efficiency from one of their business processes.

None of the interviewed decision makers expressed regret or wished to unwind the outsourcing, saying that it had served their purpose. All organisations had, to some extent, expressed their satisfaction with their outsourcing decision, however, with some subtle differences.

However, from the interviews it also became apparent that the organisations which had gone through a *Discovery* process were not only able to better articulate the outcomes of the sourcing agreement that had resulted from the outsourcing decision, but were also able to compare them with their expectations at the outset of the arrangement. This is the case for all three organisations that underwent a *Discovery* process, including MANU1, MANU2, and RESOU.

For example, whilst RESOU and MANU1 were satisfied with their prior outsourcing arrangements, both understood the limitations of the deal. Both organisations had a long-term agreement with the incumbent, and over the years perceived the incumbent as having become complacent in parts. Whilst MANU1 accepted this, and were

satisfied with the baseline service the vendor was providing, RESOU wanted a step change, therefore considering negotiating with other vendors a new deal.

MANU2, which had gone through a wide exploration of options in 2005, continued on with their selected vendor for a number of years, extending the contract beyond its expiry in 2008, indicating that the satisfaction with the selected vendor was high.

On the contrary, where decision makers adopted an *Idea Imposition* process, it was harder to identify outcomes achieved and comparing these with the expectations from the outset of the arrangement.

INSU, which had not outsourced before its decision in 2005, had very little expectations. It knew it needed resources to cope with an increasing workload, and that these resources could be found offshore, but had very little other requirements. So that when the deal happened, and the resources were recruited, management expectations were quickly met and satisfaction was guaranteed. However, based on the learning from the first deal in 2005, requirements for the deal in 2011/12 changed. No longer was a mere staff augmentation to cope with an increasing workload sufficient. It was also important to enable the vendor to provide a managed service.

In summary, whilst each organisation had achieved some satisfactory outcome with the decision, the organisations that had done a *Wider and deeper exploration* of their decision options were at the conclusion of the deal better able to identify the results achieved. Hence,

RC.14.a: The greater the depth of the investigation, the better informed is the evaluation of the outcome towards the end of the contract

It must be said that whilst a clear and structured evaluation was not possible, all interview participants did have an opinion on the outcome, they just could not argue their opinion well.

Where organisations went through a greater depth of investigation, it was apparent that interview participants could better rationalise their choices. Once a more formalised decision process is rigorously followed, both depth and breadth in the investigation are much more likely to increase. Hence,

RC.14.b: The more comprehensively choices are explored, the better informed is the evaluation of the outcome near the end of the contract

For an overview of the case evidence that supports the above research conclusions, refer to Table 5.7 for Phase 1, and Tables 6.3 and 6.4 for Phase 2.

7.3.5 Process Impact on Outcomes

RQ 2.5: How does the outsourcing decision process itself impact the outsourcing outcome?

Another, high-level proposition that can be developed from the literature review is: *The decision outcome is effected by the adopted decision process type.* Before discussing this proposition, it is noted that measuring outcomes poses a significant challenge. This is in particular the case for management satisfaction. Dean and Sharfman (1996, p. 386) write: “*Moreover, some of the outcomes are almost purely perceptual*”. As such, it is not surprising that all participants reported successes, including the cases that followed a *Discovery* process, *Emerging Opportunity* process, or *Idea Imposition* process. Stakeholders seem to focus in their assessment of success on measures that they perceive as important, and these were articulated in the business case at the outset of the investigation.

For example, for INSU the key success measures were scale-ability and labour arbitrage. Both were achieved. Yet, the CIO questioned what success really meant. For INSU, it is problematic to objectively evaluate the outcome of the deal, as no other, alternative options had been identified during the decision-making process. MANU1, on the other hand, had scanned the market extensively and had even considered bringing back services in-house. When decision makers at MANU1 confirmed that they were highly satisfied with the deal, they were more confident in their evaluation, especially because they understood how their chosen model and provider performed when compared with other options. Hence,

RC.15.a: The adoption of a Discovery process may lead to higher management satisfaction than the adoption of an Idea Imposition process.

Whilst MANU1 and MANU2 (in both cases a *Discovery* process was followed) extended their contract beyond the original term (long-term adoption of selected

option), FIN1 (decision followed *Idea Imposition* process) did not adopt the option as a long-term, full-scale sourcing model. However, the model at FIN1 is continued as a trial.

Similarly, although INSU has not reversed the decision to offshore, and even increased the work it out-tasked, it is looking for adjusting the sourcing model to yield better results. Whilst actual outcomes are not visible until three to four years after entering the contract, it appears from Research Phase 2 that INSU is seeking with its 2012 decision to refine its sourcing model by bringing in best of breed organisations and cutting ties with a single provider that had become complacent.

In summary, the three organisations (INSU, FIN1 and FIN2) that went through an *Idea Imposition* process all reported only moderately successful outcomes, often only achieving *Short-term gains / Quick wins* instead of *Longer-term alignment* with the vendor.

It is concluded that despite every decision maker appearing happy with their decision, *Longer-term alignment* was only achieved at the organisations that went through a *Discovery* process, whereas organisations that went through an *Idea Imposition* process only achieved *Quick wins / Short-term gains*.

The result is unsurprising. Nutt (2008, p. 443) also finds that *Discovery* process leads to “*far better outcomes, with 90 per cent sustained adoption*”, whereas *Idea Imposition* was only found to have a 55 per cent sustained adoption rate. Hence,

RC.15.b: The adoption of a Discovery process may lead to longer term adoption of the chosen option than the adoption of an Idea Imposition process.

For an overview of the case evidence that supports the above research conclusions, refer to Table 5.7 for Phase 1, and Table 6.3 and Table 6.4 for Phase 2.

7.3.6 Conclusions for Principal Research Question 2

RQ 2: What is the connection between the outsourcing decision-making process and the outcome of the outsourcing decision?

Recapping the literature review in Section 3.3.1, and comparing the overall patterns of decision-making that were observed in field work Phase 1 and Phase 2 (summarizing the discussion in sections 7.3.1 – 7.3.5), a high level research conclusion is developed:

RC.16: The adoption of a decision process type is contingent on the decision context, and this impacts the discovery of choices, which in turn impacts the decision outcome.

Through closer examination of the actual cases, more specific research conclusions (RC 9 – RC 15) were developed (deVaus, 2001), and then compared with the extant literature (Eisenhardt, 1989), which were discussed in sub-section 7.3.1 – 7.3.5.

7.4 REVISED CONCEPTUAL FRAMEWORK

Figure 7.2 below presents the revised conceptual framework that was introduced in Chapter 3. The revised conceptual framework is based on the research conclusions drawn from the discussion in sections 7.2 – 7.3. It has been able to identify reasons such as decision characteristics, and decision maker characteristics as key determinants for the adoption of certain decision-making process types. It has further been able to establish a link between the different *process* types and the depth and breadth of the *content* discovery. Connections were also made between the *process* and *content* and the *outcome*. The framework was based on a more complex framework of SDM by Bell et al. (1997), who themselves had suggested to reduce their theoretical framework to conduct actual research.

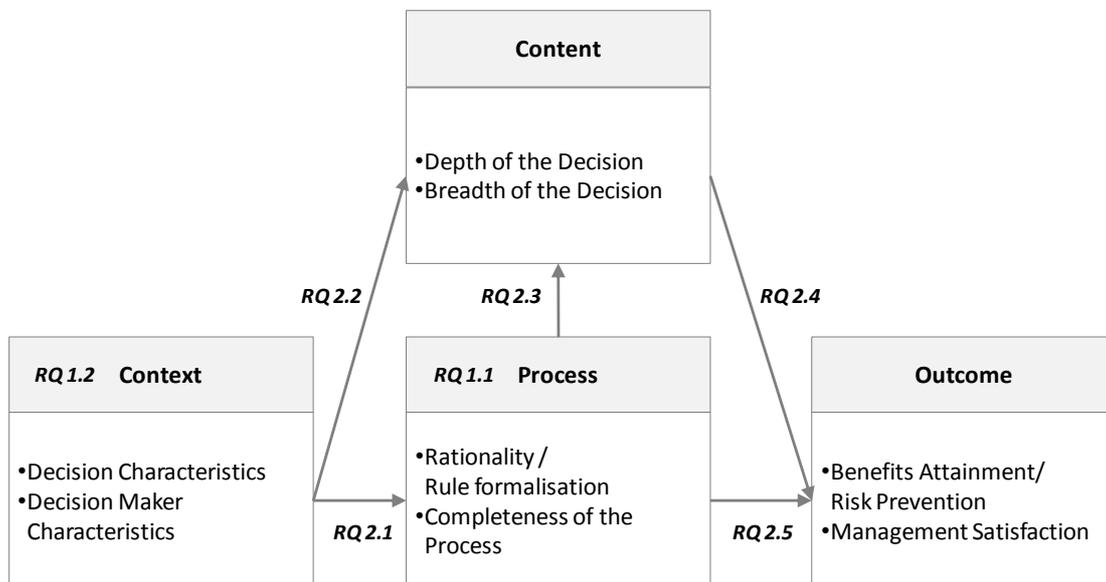


Figure 7.2 Revised Conceptual Framework

7.5 SUMMARY OF CHAPTER 7

This chapter provided a comprehensive discussion of the results from Phase 1 and Phase 2 fieldwork, and compared findings with the extant literature, including the outsourcing literature providing insights into decision models, as well as the SDM literature providing explanations for what influences the adoption of different decision process types, and how these different decision process types result in different outcomes. The study has build on the aforementioned SDM literature by applying and extending a priori SDM theories with additional Research Conclusions within the context of this study. In response to each Research Question, Research Conclusions have been put forward that are supported by the case study evidence (see Figure 7.1).

The findings of this study broadly support the SDM model proposed by Bell et al. (1997), providing evidence that support connections proposed in their framework. In more detail, it provides additional insights into each construct of the proposed conceptual framework by identifying key context factors that impact the selection of a decision process, and further identifying how the decision process is impacting the discovery of choices, which in turn results in different outcomes.

Research Conclusions were drawn from the Phase 1 and Phase 2 research for each of the Research Questions (see Table 7.1).

Table 7.1 Research Questions and Associated Research Conclusions

Research Question		Research Conclusion
<i>RQ 1: How do real world decision makers approach an outsourcing decision, and what influences the adoption of decision frameworks and decision models?</i>		
<i>RQ 1.1: What decision models are used during each stage of the outsourcing decision-making process?</i>	Research Conclusion 1	Decision Tree Models are not directly adopted due to their limitations, but principles of it are embedded in the overall decision process, i.e. step wise elimination of vendors throughout the decision process.
	Research Conclusion 2	Scoring Models are adopted for the vendor selection stage, due to their inherent properties (not limited in number of options evaluated, not limited in number of factors considered).
	Research Conclusion 3	Heuristic / Portfolio Models are useful in the strategy setting stage and vendor selection stage, when precise inputs are not available, and it is of advantage to facilitate a discussion to reduce complexity.
<i>RQ 1.2: What are the inhibitors in adopting outsourcing decision models?</i>	Research Conclusion 4	The adoption of a decision model is influenced by the decision makers previous experience in decision-making, i.e. more experienced decision makers are more likely to adopt decision models due to their greater appreciation of the value of decision models.
	Research Conclusion 5	Experienced decision makers are likely to recruit external advisor, to assist in the decision-making. Where external advisors are used, the adoption of a decision model is more likely.
	Research Conclusion 6	The need to justify a decision positively impacts the adoption of a decision model.
<i>Summary Research Conclusions for Principal Research Question RQ1</i>	Research Conclusion 7	Decision Makers approach their outsourcing decisions differently, with two factors impacting the adoption of decision models, being the need to justify the decision and the decision makers' prior experience in outsourcing decision making.
	Research Conclusion 8	The overall limitations of the decision models impact their adoption throughout the different stages of the outsourcing decision making process.

Discussion

Research Question		Research Conclusion
<i>RQ 2: What is the connection between the outsourcing decision-making process and the outcome of the outsourcing decision?</i>		
<i>RQ 2.1: What impacts the adoption of a decision-making process type?</i>	Research Conclusion 9	The adoption of a decision process type is contingent on the context of the decision.
	Research Conclusion 9.a	In organisations that have not previously outsourced, the identification of an opportunity and lack of urgency leads to adoption of an <i>Idea Imposition</i> process.
	Research Conclusion 9.b	In organisations that have previously outsourced, the perceived need to act and the urgency of the decision will be met by adopting a <i>Discovery</i> process.
	Research Conclusion 10.a	In organisations that have not outsourced previously, the lack of outsourcing decision-making experience leads to stakeholders adopting an <i>Idea Imposition</i> process.
	Research Conclusion 10.b	In organisations that have previously outsourced, the experience of the decision makers leads them to adopt a <i>Discovery</i> process.
<i>RQ 2.2: How does the context influence the discovery of outsourcing decision dimensions?</i>	Research Conclusion 11.a	Decision Makers that have experience in outsourcing approach the exploration of choices more widely.
	Research Conclusion 11.b	Decision Makers that have no prior experience in outsourcing approach the exploration of choices more narrowly.
<i>RQ 2.3: What influence does the process have on determining the choices for each dimension of the outsourcing decision?</i>	Research Conclusion 12	The comprehensiveness of content discovery is effected by the adopted process type (depth of investigation).
	Research Conclusion 13.a	The adoption of a <i>Discovery</i> process leads to a wider exploration of options (breadth of investigation).
	Research Conclusion 13.b	The adoption of an <i>Idea Imposition</i> process results in a very narrow exploration of options.
<i>RQ 2.4: How do the choices for each dimension of the decision impact the overall outsourcing decision outcome?</i>	Research Conclusion 14.a	The greater the depth of the investigation, the better informed is the evaluation of the outcome near the end of the contract.
	Research Conclusion 14.b	The more comprehensively choices are explored, the better informed is the evaluation of the outcome near the end of the contract.

Discussion

Research Question	Research Conclusion
<i>RQ 2.5: How does the outsourcing decision process itself impact the outsourcing outcome?</i>	Research Conclusion 15.a <hr/> Research Conclusion 15.b <hr/> The adoption of a <i>Discovery</i> process may lead to higher management satisfaction than the adoption of an <i>Idea Imposition</i> process. <hr/> The adoption of a <i>Discovery</i> process may lead to longer term adoption of the chosen option than the adoption of an <i>Idea Imposition</i> process.
<i>Summary Research Conclusion for Principal Research Question RQ2</i>	Research Conclusion 16 <hr/> The adoption of a decision process type is contingent on the decision context, and this impacts the discovery of choices, which in turn impacts the decision outcome.

8 CONCLUSIONS

8.1 INTRODUCTION

The thesis addressed two main research questions and associated sub questions related to ODM, with a particular focus on what influences the adoption of decision-making frameworks, and how the quality of the decision-making process impacts the outcome of the decisions. This chapter summarises the findings, and highlights theoretical, methodological and practical contributions. This chapter is structured as follows: Section 8.2 summarises key findings. Section 8.3 discusses how this study contributes to the theoretical, methodological and practical body of knowledge. Section 8.4 recognises the limitations of this thesis. Section 8.5 suggests future directions for research. The position of this chapter in the overall research design is highlight in Figure 8.1.

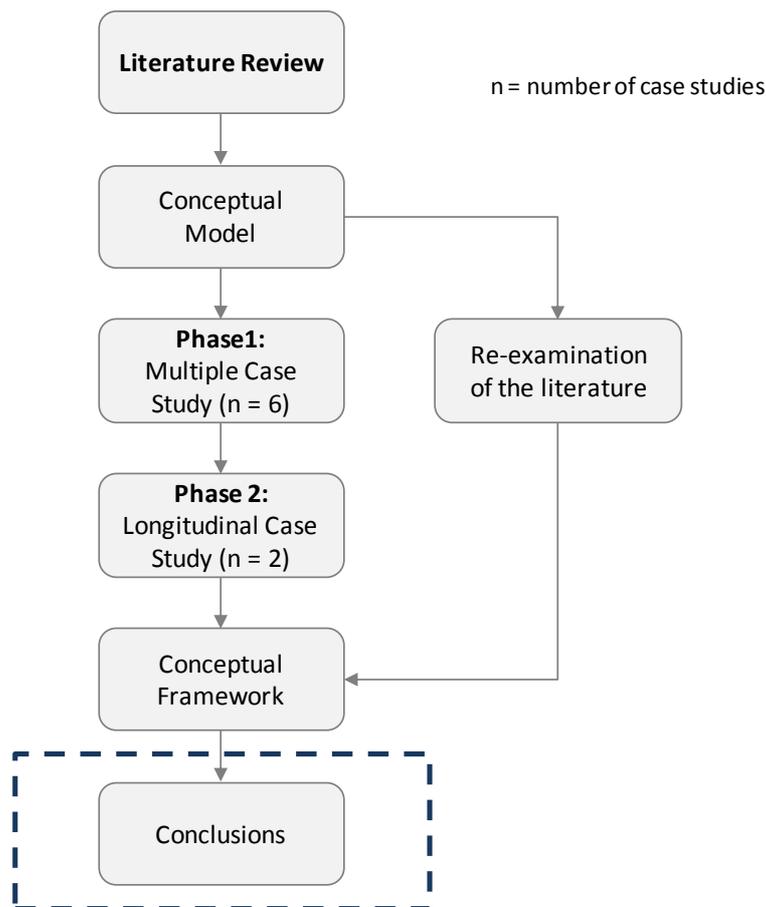


Figure 8.1 Position of Chapter 8 in the Overall Research Design

8.2 SUMMARY OF KEY FINDINGS

This thesis addressed two main research questions. First, it asked what influences the adoption of outsourcing decision models. Second, it asked what influence the adoption of different decision processes has on the decision outcome. To answer this question, Nutt's (2008) work on decision process classifications, and the SDM framework proposed by Bell et al. (1997), were used as key inputs for this research.

The first insight provided by this study relate to approaches to outsourcing decisions and the adoption of ODMs. A decision model taxonomy was developed and three types of decision models were identified, including Decision Trees, Heuristic / Portfolio Models, and Scoring Models. Over 12 models were classified within the taxonomy. The decision model taxonomy highlighted the applicability and limitations of the various models. The fieldwork in Phase 1 confirmed the predicted limited applicability of the decision models. It was found that organisations approach their outsourcing decisions quite differently, and that the adoption of decision models differs based on the need to justify the decision and the decision makers' prior experience. Further, each of the three decision model types has its limitations, hence impacting their adoption throughout the decision making process. More specifically, Heuristic / Portfolio Models were not found to be used, the principles of Decision Tree Models (stage-wise elimination of options) and Scoring Models were widely used for vendor selection.

Through the better understanding of the decision models, the actual decision-making processes were then investigated. To further investigate ITO decision-making, a more strategic view of decision-making was adopted, with Bell et al. (1997) providing a framework of SDM serving as a foundation for the research, and enabling an understanding of the connections between process, content, context and outcome. Of primary interest was what influenced the adoption of the various decision process types Nutt (2008) had identified, and how then the different decision processes lead to different choices and in turn lead to different results.

The study found that higher level maturity organisations with experienced decision makers (*Routinières*) were adopting *Discovery* processes, investigating options more widely, whereas organisations with no or little prior experience in ITO, and ITO decision-making preferred the so called *Idea Imposition* processes.

The *Discovery* processes are characterised by a higher level of rationality due to a much more formalized process, which guides decision makers in the discovery of decision content, and further, that also requires decision makers to formulate rationales for their actions, which the decision maker would have otherwise ignored. Such formalized processes were not followed in case study organisations that were *First Timers* in ODM. These organisations followed an *Idea Imposition* process, whereby a powerful stakeholder had made a decision even before commencement of the decision process rendering the decision process a quasi post hoc justification for that decision.

Further, it was also found that there is a connection between decision process and content. Decision Makers and Facilitators that had adopted a *Discovery* process were able to articulate the choices made (rationalise) for all decisions. On the other hand, stakeholders that had adopted an *Idea Imposition* process were not able to fully rationalise each element of the decision.

In relation to the process outcome connection, it was found that the outcome of a decision is impacted by the adopted decision-making process. More specifically, the organisations which had adopted a *Discovery* process were more highly satisfied with their decision achieving a *longer-term* adoption.

8.3 CONTRIBUTION TO THE BODY OF KNOWLEDGE

By answering the two main research questions and associated sub-questions, as listed in Section 1.2, this thesis adds to the outsourcing and decision-making literature, including making a theoretical, methodological and practical contribution to the body of knowledge. This Section discusses the contribution the thesis makes to the outsourcing and decision-making field.

8.3.1 Theoretical Contributions

8.3.1.1 Taxonomy of Outsourcing Decision Models

While research seem to have identified many of the factors that impact an outsourcing decision, including triggers, benefits and risks, determinants and decision factors, and they all seem well understood (Jiang & Qureshi, 2006), Kremic et al. (2006) argue that there is a lack of guidelines and tools when it comes to decision support.

The taxonomy presented here classifies the existing outsourcing decision models, thus provides decision makers with an overview of available decision models. At the same time, it also becomes clear from the classification of the decision models in the taxonomy, that these models have a number of limitations.

Besides the limitations discussed in the previous section (limited applicability/focus of the models, simplicity), it is clear that the existing outsourcing decision models appear to be not sufficiently operationalised. Although Cáneez et al. (2000) attempt to provide to a limited extent an operationalisation of their decision model, essential information that would sufficiently enable operationalisation is omitted. In other words, a truly complete decision model would, besides the provision of the tool itself, describe the underlying process of how to apply the tool, including the selection of decision makers, etc. Based on this and the previous mentioned points, practitioners rightly refuse to use any of the academic decision support models.

In summary, this thesis has provided a taxonomy of outsourcing decision support models, and by assessing the models in the taxonomy has found a number of limitations of the decision models, which in turn provide an explanation for a low adoption of these models. More research is needed to test the validity of the proposed taxonomy, and to see if the descriptions in the academic literature are a good reflection of real world decision-making.

8.3.1.2 Decision-Making Theory

The contribution of this thesis to the SDM theory is multi-fold. Firstly, it described in some detail real world ITO decisions at six large, Australian-based organisations addressing a gap in the existing literature. Secondly, from the review of the cases, several research conclusions for ITO decision-making were drawn, that add insights to the existing body of SDM literature, in particular addressing Nutt's (2008) request for further research to better understand how context variables influence the adoption of certain process types.

The six case study organisations that were investigated approached their ITO decisions quite differently; *First Time* outsourcing decision makers at INSU and FIN1 used an *Idea Imposition* process, whereas *Routinière* decision makers at MANU1 and MANU2 adopted a *Discovery* process.

The different decision process types that were followed allowed the decision makers varying degrees of content discovery. At INSU and FIN2, where *Idea imposition* processes were followed, only a limited number of choices (content) were discovered, and subsequently the lack of identification of alternative options led to the perception that the selected option, although perceived as successful, may not have been the best option. In these cases *the decision makers did not know what they did not know*, therefore cutting short the investigation resulted in making a poorly informed decision that they later on could not benchmark against other options.

In contrast, at MANU1 and MANU2, where decision makers were experienced, a *Discovery* process with a high degree of formality and rational decision-making was adopted. The process ensured that decision makers could make a well informed decision, allowing them to confirm with greater confidence that the arrangement put in place was successful. In these cases (MANU1 and MANU2), the decision makers *knew what they did not know*, therefore explored many options wide and deep. With the information gathered, decision makers could understand and compare the outcomes of the deal with the original objectives and the market data. A summary of the research conclusions is provided in Table 7.1.

8.3.2 Methodological Contributions

This thesis was an exploratory qualitative study that included six case studies and two longitudinal case studies. A variety of data sources were used, including interviews and document reviews.

Further, involving two longitudinal case studies over a 4 year period facilitated a deeper understanding of decision-making, in particular about the learning that were made by the decision makers over time, and the resulting change in the decision-making process.

By capturing qualitatively the views and insights provided by top management, in particular the different CIOs that were interviewed for the research, is furthering the field.

The research in particular fills a void identified by Nutt (2011), who suggested there was a need for more qualitative research into decision-making.

“To be published, decision-making research, like all of management, must stress rigor. This has moved researchers away from the study of decisions to research questions that allow investigators to focus on factors that can be operationalized and deftly measured in a single study. This has forced researchers to study tangential aspects of decision-making, such as the number of participants, instead of larger questions that, by their very nature, resist precise measurements. The measure of a factor is not given by its measurability. To illustrate, a key factor in decision-making is process. One way to measure process is to codify the actions taken by a decision maker. Documenting these actions and determining their consequences pose many methodological challenges and call for qualitative methods. Such methods are often rejected because they lack rigor. Embracing this challenge should be the thrust of future work. Research is called on to seek a better balance of rigor with relevance.” (Nutt, 2011, p. 11)

8.3.3 Practical Contributions

As this thesis forms part of the requirements for achieving the degree of a Doctor of Business Administration, it is equally important for the author to also discuss any practical contributions from this research for future work. In Chapter 2 it was discussed that a number of academics, who researched ODM, found that decision makers were hardly ever using decision-making models. This finding, compounded by the statistics provided by Gartner (2008b), which is that organisations were often prematurely terminating their outsourcing contracts, cast some doubt over the decision processes and decision models used in practice. This triggered the author’s interest into researching this field and provided the justification for the field work. Based on the results of this research, the author as well as other practitioners can gain a number of insights and lessons learned from other organisations that have gone through ODM, including the following:

Firstly, decision makers need to appreciate that outsourcing decisions are strategic decisions. Outsourcing decisions are long-term and have a significant impact on the organisation. A bungled ITO contract can adversely affect the business the same way that the outsourcing of any other function can, such as product engineering, finance or human resources. Without this appreciation, the decision process stay underinvested, and this may compromise the outcome of the decision.

Secondly, organisations get better in outsourcing the more often they outsource. Decision makers need to go through a learning process to better understand the complexity and long-term effects of outsourcing contracts. Where the initial

outsourcing decision was underinvested, it was not understood at the time that the decision is long-term, and long-term success was not achieved. This failure led to the realisation that outsourcing is a strategic move and that the outsourcing decision needs to be invested in.

Thirdly, the adoption of *Discovery* processes, whilst often taking longer and costing more to execute, are more likely to produce the outcomes the decision makers are hoping to achieve. At a minimum, having gone through the discovery process helps organisations to remember what they were trying to achieve when they entered into the outsourcing arrangement several years ago and also can better understand and judge the result.

Fourthly, whilst organisations may believe they have the necessary in-house skills to navigate through decision processes by themselves, it seems more appropriate to bring in external consults. External consultants will use their expertise to drive a more formalised decision-making process, in particular by using decision models. The academic literature had previously explained a low adoption rate of decision models with their lack of practicality, however, from this research it seems that the adoption of a model is more likely to relate to the expertise, or lack thereof, of decision makers. Where the organisation brought in external consultants to give them advice on the ODM process, firms went through more rigorous and transparent decision processes, adopting decision models that facilitated more objective and informed decision-making. In the cases where the organisation did not bring in external consultants, a decision model was not used to derive the decision, and when the external consultants were brought in late in the process, the decision model was tweaked so it would provide a post-hoc justification of the decision.

Lastly, while the descriptions of the case study findings may appear overly detailed, these allow insights to be gained on industry sourcing practices from some of the largest organisations in Australia. For example, MANU1 used an RFP like process to ready themselves for exclusive negotiations with the vendor, allowing them to exert pressure on the vendor without having to actually go to market.

8.4 LIMITATIONS

As has been stated in the previous chapter, outcome measures, in particular the management satisfaction, are based on perceptions. Whilst the successes reported are compared, it is stressed that because the interviews had been conducted with a few participants only (in two cases, FIN1 and FIN2, only 1 interview partner was available) the ability to compare different accounts of the level of success was not great.

A major challenge of the research is from retrospect and response bias. Whilst the success reported by interview participants are critically reviewed, in particular by using company documents, and reviewing news releases in the media, it is noted that it is difficult for the researcher to critically review the statements made by the interview participants or even challenge their conclusions.

Further, even the fact that organisations renew their contract with a vendor (sustained adoption of a sourcing decision) does not necessarily mean that this organisation is satisfied with the vendor. The organisation may just not be willing to invest into a change of provider.

In addition, due to the limited number of decision makers that the researcher could get access to, the sampling method is based on a convenience sample. Two of the six case studies (FIN1 and FIN2) involved only a single interview participant. At FIN1, the decision maker that was interviewed had left the organisation shortly after the interview, effectively eliminating the opportunity to find other interview participants through snowballing. Similarly, at FIN2 the decision maker had already left the organisation at the time of the interview, with his new employer discouraging him from reaching back into his former organisation for identification of other research participants.

Moreover, the research conclusions listed in Section 7.6 have been developed inductively within the specific context of the case study organisations, hence, replicating the research conclusions within other organisational context needs to be approached with caution.

In addition, all cases investigated here are based on decisions that have resulted in outsourcing arrangements. It would have been of advantage to have one or more cases, where the decision did not result in outsourcing, and services were retained in-house instead. A limitation of the study is the use of a convenience sample, which did not

include organisations that rejected the outsourcing option and retained services in-house instead.

8.5 FUTURE RESEARCH DIRECTIONS

At the beginning of this research the author set out to gain a better understanding of real world ITO decision-making in different settings and how these influence the outcome of a decision.

This thesis has reviewed six case studies and two longitudinal case studies of mainly Australian-based organisations making outsourcing decisions. As this study only focussed on two context factors influencing the adoption of decision process types (urgency and decision maker experience, decision trigger), further research is needed to gain a better understanding of the other context factors that may influence the adoption of decision processes.

Further, the link between the adoption of a process type, its influence on the discovery of choices (content) and related decision outcomes may yield many more avenues for further research.

Lastly, as the longitudinal research is only based on two case studies, additional cases may provide further insights. A recent “stock take” on SDM literature also identified the need to conduct further longitudinal research (Papadakis et al., 2010).

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APPENDIX A: EXPLANATORY STATEMENT

Explanatory Statement – Company

Title: *IT Outsourcing Decision Processes and Related Decision Models*

This information sheet is for you to keep.

Introduction

My name is **Peter Westphal** and I am conducting a research project with **Prof. Dr. Amrik Sohal** a **professor** in the Department of **Management** towards a **DBA (Doctor of Business Administration) degree** at Monash University. This means that I will be writing **a thesis which is the equivalent of a 300 page book**.

Why did you choose this particular person/group as participants?

I have obtained your contact details from John Rundell, Managing Director of Stratica, who suggested that you may be interested in participating in this research.

The aim/purpose of the research

The aim of this research is to gain a better understanding of outsourcing decision-making. I hope that it will provide lessons learned from outsourcing decision-making, which will contribute to the development of a more comprehensive decision-making process that has adequate decision-making model support, and which can be used by organisations to make better outsourcing decisions.

Possible benefits

Participating organisations will be provided with the results from the research.

What does the research involve?

I am looking for senior decision makers who were involved in outsourcing decision-making in their organisations, and who are willing to take part in interviews during which the process of decision-making and the use of the decision-making models will be discussed, and issues and lessons learned from the process will be documented. All meetings will be audio-taped and the researcher will use the recording to write notes, which will be presented at the next meeting.

How much time will the research take?

Each interviewee will be initially interviewed once (duration one hour during business hours), with a second follow up meeting sought around 2 weeks after the first meeting, again in work time.

Inconvenience/discomfort

There will be no known inconvenience and/or discomfort to any participant. Further, there will be no foreseeable risks of harm or side-effects to any participants.

Payment

There will be no payment for participation in the research. However, an invitation to lunch or dinner for every interviewee is offered after the interview.

Can I withdraw from the research?

Participation in this study is voluntary and you are under no obligation to consent to participation. If you do consent to participate, you may withdraw at any time.

Confidentiality

A report of the study may be submitted for publication, but neither individual participants nor the company itself will be identifiable in such a report.

Storage of data

Storage of the data collected will adhere to the University regulations and will be kept on University premises in a locked cupboard/filing cabinet for 5 years.

Use of data for other purposes

The data will not be used for any purpose,

Results

If you would like to be informed of the aggregate research finding, please contact **Peter Westphal** on + [REDACTED] or email at [REDACTED] or website. The findings are accessible for **5 years**.

<p>If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:</p>	<p>If you have a complaint concerning the manner in which this research (CF09/2123: 2009001209) is being conducted, please contact:</p>
<p>Peter Westphal Telephone: [REDACTED] [REDACTED] [REDACTED] Email: [REDACTED] Postal address [REDACTED] [REDACTED]</p>	<p>Executive Officer, Human Research Ethics Standing Committee on Ethics in Research Involving Humans (SCERH) Building 3e Room 111 Research Office Monash University VIC 3800 Tel: +61 3 9905 2052 Fax: +61 3 9905 1420 Email: scerh@adm.monash.edu.au</p>
<p>Supervisor: Prof. Dr. Amrik Sohal Telephone: [REDACTED] Email: [REDACTED] Postal address Department of Management, Faculty of Business and Economics, Monash University PO Box 197 Caulfield East, VIC 3145</p>	

APPENDIX B: INTERVIEW QUESTIONS

CONTEXT

Organisation Characteristics

1. Within which industry does your organization operate?
2. What is the size of your organization by number of employees?
3. What is the size of your organization by revenue?
4. What is the organisation's total IT budget?

Decision Maker Characteristics

5. What is your experience in years?
6. How many outsourcing decision were you involved in prior to this decision?
7. How many of these were with other organizations?

IT Characteristics

8. What is the seniority of the decision makers (Length of tenure with the organization)?
9. What is the maturity of the decision makers (Years of Experience)?
10. What is the depth of vertical knowledge (industry knowledge in IT) of the decision maker?
11. What is the depth of horizontal knowledge (the entire business and market characteristics) of the decision maker?
12. What is the hierarchical level / authorization level of the decision maker?

Decision Characteristics

13. What triggered the decision? Is it triggered by an internal event (expiry of an existing agreement), or an external event?
14. What were the initial drivers for the decision-making process? What motivated the decision?

CONTENT

Number of Dimensions

15. What were the dimensions you have considered (in scope)?

Depth of Rationalisation

16. What were the justifications that you have provided for each choice made under each dimension in scope?

PROCESS

Rationality / Comprehensiveness

17. What process steps did the project follow to make the decision?
18. Was external advice sought?

Rule Formalization

19. How was the process selected, how was the methodology determined?
20. Were process steps minuted?
21. What was the documentation completed?
22. What decision models did you know of at the time of the outsourcing?
23. What decision models were applied?
24. What was the rationale behind choosing the particular decision model(s)?
25. How did you value the contribution of each decision model?
26. Was the final decision made based on the outcome of the process/ derived from the models?

Hierarchical Decentralization

27. Who was involved in the decision process, which hierarchical level?
28. Who made the final decision?

OUTCOME

Benefit Attainment / Risk Prevention

29. What were the hoped-for benefits of the IT outsourcing? Were they achieved?
30. What were the cost savings achieved? Were they better than anticipated?
31. Were the service levels maintained or have they improved?
32. Would you, overall speaking, by comparing the initial objectives (hoped for benefits of the outsourcing) and the outcomes of the outsourcing, say that you had achieved what you were aiming for?

Management Satisfaction

33. What are the levels of satisfaction with the outsourcing?
34. Are there any disputes between the organisation and its service providers?;
35. How is the service provider's responsiveness and attention to the organizations needs?
36. Would you renew the contract? What's the organizations overall attitude?

APPENDIX C: CONSENT FORM

Consent Form – Company – Senior IT Staff

Title: *IT Outsourcing Decision Processes and Related Decision Models*

NOTE: This consent form will remain with the Monash University researcher for their records

I agree to take part in the Monash University research project specified above. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that:

I agree to be interviewed by the researcher Yes No

I agree to allow the interview to be audio-taped and/or video-taped Yes No

I agree to make myself available for a further interview if required Yes No

I agree to complete questionnaires asking me about **IT Outsourcing Decision-Making**.

and/or

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way.

and/or

I understand that any data that the researcher extracts from the interview / focus group / questionnaire / survey for use in reports or published findings will not, under any circumstances, contain names or identifying characteristics.

and/or

I understand that I will be given a transcript of data concerning me for my approval before it is included in the write up of the research.

and/or

I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party.

and/or

I understand that data from the **interview** will be kept in a secure storage and accessible to the research team. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

Participant's name

Signature, Date