THE ROLE OF COSTS IN OUTSOURCING DECISIONS: SELECTED STUDIES OF PUBLIC SECTOR ORGANISATIONS

by

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B.Bus. (MCAE), M.Ec. (UNE), CA

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy (Accounting) of Charles Sturt University.

November 2001

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I, Jayne Elizabeth Bisman, declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma at Charles Sturt University or any other educational institution, except where due acknowledgment is made in the thesis. Any contribution made to the research by colleagues with whom I have worked at Charles Sturt University or elsewhere during my candidature is fully acknowledged.

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Signed:

Jayne Elizabeth Bisman
November 2001
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Throughout the course of this thesis research I have taken great delight in a very relevant, medieval-style cartoon created by Gary Larson. The caption of the cartoon reads: ‘A heated exchange took place between the King and the moat contractor’, and the associated picture shows that the contractors have dug the moat inside the walls of the castle. This cartoon helped to remind me of the importance of digging the moat in the right place, and forms the basis for the following acknowledgments.

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The works of others referred to in this thesis are duly acknowledged in the References section.

This thesis is the result of my research and investigations as an individual - there were no co-investigators. As thesis typist I am also solely responsible for any typographical errors in the text.
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<td>AARF</td>
<td>Australian Accounting Research Foundation</td>
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<tr>
<td>AAS</td>
<td>Australian Accounting Standard</td>
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<tr>
<td>ABC</td>
<td>Activity Based Costs/Costing</td>
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<td>ABS</td>
<td>Australian Bureau of Statistics</td>
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<td>ACC</td>
<td>Australian Chamber of Commerce</td>
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<td>ACC, ADC &amp; AMA</td>
<td>Association of City Councils, Association of District Councils &amp; Association of Metropolitan Authorities (UK)</td>
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<td>ACCC</td>
<td>Australian Competition and Consumer Commission</td>
</tr>
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<td>ACT</td>
<td>Australian Capital Territory</td>
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<td>AGPS</td>
<td>Australian Government Publishing Service</td>
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<td>ANAO</td>
<td>Australian National Audit Office</td>
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<td>ANOVA</td>
<td>Analysis of variance</td>
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<td>APS</td>
<td>Australian Public Sector</td>
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<td>ARIMA</td>
<td>Association of Risk &amp; Insurance Managers of Australasia</td>
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<tr>
<td>ASCPA</td>
<td>Australian Society of Certified Practising Accountants</td>
</tr>
<tr>
<td>CCT</td>
<td>Compulsory Competitive Tendering</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>CFO</td>
<td>Chief Financial Officer</td>
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<tr>
<td>CJC</td>
<td>Competition Joint Committee (UK)</td>
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<tr>
<td>CSO</td>
<td>Community Service Obligation</td>
</tr>
<tr>
<td>CTC</td>
<td>Competitive Tendering &amp; Contracting</td>
</tr>
<tr>
<td>Ctw or Cwlth</td>
<td>Commonwealth</td>
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<tr>
<td>DCF</td>
<td>Discounted Cash Flow</td>
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<tr>
<td>DM</td>
<td>Decision maker</td>
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<tr>
<td>DOFA</td>
<td>Department of Finance &amp; Administration</td>
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<tr>
<td>GBE</td>
<td>Government Business Enterprise</td>
</tr>
<tr>
<td>GBU</td>
<td>Government Business Unit</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>GM</td>
<td>General Manager</td>
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<tr>
<td>Govt</td>
<td>Government</td>
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<td>GST</td>
<td>Goods &amp; Services Tax</td>
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<tr>
<td>GTE</td>
<td>Government Trading Enterprise</td>
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<td>HMSO</td>
<td>Her Majesty's Stationery Office (UK)</td>
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<td>ICAA</td>
<td>Institute of Chartered Accountants in Australia</td>
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<td>ICAC</td>
<td>Independent Commission Against Corruption</td>
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<td>ICMA</td>
<td>International City Management Association (US)</td>
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<td>IE</td>
<td>Information evaluator</td>
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<td>IS</td>
<td>Information Systems</td>
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<td>IT</td>
<td>Information Technology</td>
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<tr>
<td>JCPAA</td>
<td>Joint Committee of Public Accounts &amp; Audit</td>
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<tr>
<td>KMO</td>
<td>Kaiser-Meyer-Olkin (measure of sampling adequacy)</td>
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<td>KPI</td>
<td>Key performance indicator</td>
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<tr>
<td>LGA</td>
<td>Local Government Association</td>
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<td>LGIU</td>
<td>Local Government Information Unit (UK)</td>
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<td>MAB</td>
<td>Management Advisory Board &amp; Management Improvement Advisory Committee</td>
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<td>Management accounting systems</td>
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<td>MAV</td>
<td>Municipal Association of Victoria</td>
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<td>MCS</td>
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<td>National Competition Policy</td>
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<td>NPV</td>
<td>Net Present Value</td>
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<td>New South Wales</td>
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<td>NT</td>
<td>Northern Territory</td>
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<td>OPSS</td>
<td>Office of Public Service &amp; Science (UK)</td>
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<td>SOLACE &amp; LGTB</td>
<td>Society of Local Authority Chief Executives &amp; Local Government Training Board (UK)</td>
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<tr>
<td>SOPs</td>
<td>Standard Operating Procedures</td>
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<td>Tas</td>
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<td>TCE</td>
<td>Transaction Cost Economics</td>
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<td>Victorian Association of Municipal Accountants</td>
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<td>WA</td>
<td>Western Australia</td>
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ETHICS APPROVAL

This project was approved by Charles Sturt University Ethics in Human Research Committee on 24 October 1997, Approval No. 97/086. Official documentation, confirming ethics approval, appears in Appendix 7.
ABSTRACT

There is a rapidly growing trend towards outsourcing many and varied functions and services by the Australian public sector, and which is promoted by the public sector reforms agenda and government policy, as a means for reducing costs. However, much of the literature concerning outsourcing, and especially that which relates to the public sector and how and why costs are used in outsourcing decision-making, is anecdotal and dogmatic.

Agency theory and transaction cost economics, the conventional, explanatory frameworks applied to outsourcing, as well as aspects of contingency theory, are integrated to derive a series of propositions and testable hypotheses, and develop an a priori model of the role of costs in Australian public sector outsourcing decision-making.

Using a critical realist ontology, and both qualitative and quantitative methodology, the model was explored, modified, and tested. Following initial, critical narrative and content analysis studies of the literature, to identify relevant variables, three major, complementary phases of research were undertaken. The phases comprised: a case study of a single public sector, with 13 embedded units of analysis; a program of convergent, depth interviews with managers from 15 other public sector organisations; and, a 7-page survey questionnaire administered to managers of further public sector organisations, which produced 131 useable responses, constituting a 22% response rate.

Observation, document review and interviews were used in studying the case organisation, and together with the 15 interviews of other organisation managers, data collected were qualitatively analysed using pattern matching and protocol analysis techniques. The initial multi-theoretical model guiding the research was modified following the qualitative analysis, and the propositions and testable hypotheses then examined on the basis of data gathered from the cross-sectional survey questionnaire. Survey data were quantitatively analysed, principally by applying ANOVA and exploratory factor analysis. A final model was derived, which describes and explains the generative mechanisms that underlie the outsourcing decision process and decisions of Australian public sector organisations.
The findings of the research, reflected in the *post hoc* model, highlight that much of the largely, anecdotal evidence about outsourcing decision making and the role of costs in this decision making, within the public sector, is erroneous. Costs and costing information were found to serve a relatively unimportant role. Rather, political factors related to intra-organisational politics, organisation managers' party political preferences, government jurisdiction, and the influence of government policy and mandates were revealed to be particularly important in driving outsourcing decision-making.

Where costs were of some importance in outsourcing decision-making in particular organisations, cost information was often sourced from inadequate costing systems; not inclusive of both production and transaction cost components; calculated using inappropriate and mixed, inconsistent methods; and, afforded very little importance in establishing the outcomes of decisions. Several non-financial factors were however, of considerable importance in making outsourcing decisions. These factors related to service performance and control, physical and staffing resourcing issues, and managerial responsibility, and these factors were found to be individually or collectively more important than cost and financial factors.
CHAPTER 1: INTRODUCTION

1.1 Background to the research

There is a rapidly growing trend towards outsourcing many and varied functions and services by the Australian public sector (Hilmer Report 1993; DOFA 1996; Rimmer 1998). Reliable, recent estimates suggest that annually in excess of $13 billion is spent on outsourcing by Australian public sector organisations across all levels of government (Industry Commission 1996). Government policy, promoting this growth trend, is predicated on the basis of improving efficiency, principally by reducing costs (CTC Research Team 1995a; Walsh 1995; Barrett 1997; SCPAC 1997), and is a reflection of the wider Australian public sector reform agenda (Codd 1991; Koch 1996).

However, ‘much of the literature associated with contracting out [outsourcing] is generalised and dominated by dogmatism and rhetoric’ (Lyon 1994, p. 364). Therefore, until many of the claimed benefits and costs of outsourcing are studied, they remain anecdotal and perhaps even illusory. The research presented in this thesis seeks to examine specifically the role and importance of costs in making outsourcing decisions in selected Australian public sector organisations.

Outsourcing decision making, assuming an economic rationalist perspective, accords with the principles underlying agency theory (Jensen 1983; Ferris & Graddy 1991; Davis & Wood 1998) and contracting cost theory/transaction cost economics (TCE) (Williamson 1981, 1985, 1992, 1993a, 1993b, 1993c; Spicer & Ballew 1983; Lonsdale & Cox 1998). Both theories assume that the minimisation of costs is the basic rationale for choosing either a hierarchical organisational structure (in-house provision of services), or for relying on the market mechanism (outsourcing). While the bounded rational, cost economising decision framework offered by TCE is the standard theoretical justification for outsourcing, supporting private sector outsourcing decisions, it may not necessarily apply to the public sector. Public sector organisations are structured differently to those in the private sector, operate in a different environmental context, must provide services for social good, other than or beyond profit-making motivations, and some have a core of services (eg. judicial, policy, immigration, policing) which are not appropriate for full-scale outsourcing regardless of cost concerns.
While there is no accounting 'theory of costs', there are many alternative methods for calculating costs; the appropriateness of which depend upon the decision scenario (Horngren 1975; Johnson & Kaplan 1987; Atkinson et al. 1997). Public sector accounting and costing practices for making outsourcing decisions appear to be diverse (eg. Department of Finance 1991a; MAB 1992; VAMA 1993; Sciuilli 1996; Funnell & Cooper 1998), guidance on costing ambiguous and often incorrect (Hodge 1996; Johnstone 1999), and some crucial cost data unavailable or unknown (Paddin & Thanki 1995; Industry Commission 1996; Rimmer 1998).

While the achievement of cost reduction/savings is the publicly touted rationale for outsourcing public sector services, the evidence on public sector outsourcing decision making reviewed in this thesis suggests that other goals are also pursued. Further, that evidence also indicates that planned cost savings from outsourcing are often not achievable or ex post facto achieved (Albin 1992; Hodge 1996; Rimmer 1998).

Consequently, if there are factors more important than those related to costs, and which determine the outcome of outsourcing decision deliberations, or if costs are inaccurate and lead to sub-optimal decisions about whether or not to outsource, then the explanations and predictions of agency theory and TCE are challenged. Offering an alternative explanation, contingency theory (Khandwalla 1972; Otley 1980; Donaldson 1995a; Chapman 1997) posits that numerous variables, such as organisation size, environmental uncertainty, and strategy, which are not necessarily related to cost per se, help to explain organisational structure, and hence the decision to outsource.

This thesis examines the role and importance of costs in outsourcing decision making, and whether the cost savings goal of public sector outsourcing is either actively pursued or achieved. Several aspects are investigated including the sources and uses of costs in making these decisions, the costing methods applied, and the means for calculating cost savings. Further, the thesis argues that costs are not the sole driver of outsourcing decisions and that the cost savings objective might be undermined in practice by the pursuit of other goals and agendas, some of which are conflicting.

Further, this thesis investigates whether current economic theories concerning outsourcing, as applied to the public sector, offer adequate descriptions and explanations of outsourcing activity. The literature review demonstrates that little has
been done to apply respective theories, particularly in an integrated fashion and within a public sector context. Consequently, it was appropriate to ensure that manifold theoretical perspectives were reflected in the aims and research questions of this study, and in the model guiding the research.

Agency theory, TCE, and contingency theory are applied to investigate the multiplicity of factors pertinent to public sector outsourcing decision making, and to analyse the role and importance of costs among these factors. The underlying theories are tested in the rich, complex, and contextual environments of the organisations researched via case, field and survey methods. Information emerging from the critical review and content analysis of literature is applied to develop a theoretical framework. The framework is modified on the basis of case and field research and tested through analysis of a large-scale survey. Thus the thesis is based upon the formulation of a framework, recognising the antithesis or alternative and opposing views and research results, and offering a synthesis of ideas and research results to produce a new and emergent model.

1.2 Research aim & problem

The major aim of the research is to provide an understanding of the interrelationships of multiple variables in outsourcing decisions in the public sector, and in particular to map the significance of costs within this framework. This aim is achieved by addressing a number of relevant research questions. The primary research problem is:

**How and why are costs and costing information used in making outsourcing decisions in Australian public sector organisations?**

Secondary to this problem, are the support research questions of:

- How important are costs and the potential to realise cost savings in the decision to outsource?
- How are outsourcing decisions made and what role do costs play in the choice process?
- Do the various human and transactional factors associated with agency theory and TCE accurately describe the factors important in making outsourcing decisions?
- Do other factors or contingencies, such as organisation size or organisation type, influence outsourcing decision making and the role and significance of costs in making these decisions?
• Which costs are quantified and used in the outsourcing decision process? What methods are applied in the calculation of these costs and how appropriate are these methods for providing useful information in the outsourcing decision? And, consequently, how real or imaginary are the cost savings likely to be based on the costing methods and cost data employed?

• What other factors are important in the decision to outsource and how do they relate to and how significant are they compared with costs factors?

To guide and focus the research, several propositions were developed based on these broad research questions. These research propositions are presented at the end of this chapter and are discussed in detail in Chapter 2.

1.3 Justification for the research

Accounting research is socially and economically significant because:

problems of information collection and communication are a matter of interest to a society faced with allocating scarce resources using imperfect information ... the net effect of all accounting research is to alleviate such problems (Summers, 1972, p.138).

This quotation aptly summarises the importance of researching the role and significance of costs and costs savings in public sector outsourcing decision-making. As public resources decline while more welfare, infrastructure and other public services and facilities are required to satisfy growing populations, governments need to find innovative and less expensive means to meet public demands. Outsourcing can thus be viewed as a major strategy for the supplementation of scarce public sector resources, with the potential to provide required services for lower cost.

The research is significant from both theoretical and practical perspectives and is justified on a number of specific grounds:

• the importance of the public sector, both in terms of its size and its impact upon Australian society;

• the growing amount of outsourcing by the Australian public sector and the effects of this outsourcing on communities, the national economy and sub-economies; and,

• the need to study accounting practices, such as costing systems, within the public sector organisational context.
1.3.1 The Australian public sector

The public sector is the largest single organisation in Australia (Howard 1997), and in terms of revenues individual public sector organisations hold their own against major Australian private sector corporations (Kelaher 1991b). The volume of resources devoted to and consumed by the public sector, and the fact that these resources are provided by the citizenry means that inefficient utilisation of public funds and resources is important to national economic and social health. The recent growth in public sector outsourcing is substantial, and opens both vistas of opportunity for saving moneys drawn from the public purse, as well as for wasting them.

Public sector outsourcing in Australia pervades all government levels, all states and territories (in both metropolitan and regional locations), and is engaged in by public sector organisations of a variety of types and sizes. The research described in this thesis reflects this diversity, drawing on the practices and experiences of public sector organisations and their managers across the board.

1.3.2 Significance of outsourcing

Possibly the most reliable estimates of the value of outsourcing by the Australian public sector are contained in the Industry Commission's (1996) report. The Commission estimated the value of outsourcing by local, State and Federal government levels in Australia to be in excess of $13 billion annually. Based on national economic estimates for the same period (ABS 1996), outsourcing by the public sector equated to 2-3% of GDP and 3.5% of total net worth of the government sector. Outsourcing by the Australian public sector therefore represented a substantial economic force.

If costs and the achievement of cost savings are not, in practice, important in public sector outsourcing, or if costs and cost savings are not measured appropriately or accurately, then current Australian public sector outsourcing policy and practice is in desperate need of review. Furthermore, if costs associated with outsourcing are not appropriately and reliably identified this calls into question the results of prior research studies that report the achievement of cost savings through outsourcing. In recent years, 'questions have been raised about the actual level of cost savings' (Murfitt, Glanville & Ernst 1996, p. 10) and this study provides an opportunity to examine the role of costs in deciding to outsource as well as in evaluating the cost outcomes of those decisions.
1.3.3 Effects of outsourcing on communities & sub-economies

Public sector outsourcing, especially in rural and regional areas can be counterproductive due to lack of competition and contestability. As an attempt to promote competition, and thereby reduce costs, outsourcing in regional areas can have 'the effect of replacing a public monopoly with a private one' (Aulich & Reynolds 1993, p. 398).

The cost savings achievable in rural and regional areas are likely to be less than in other locales and transaction costs relatively higher, per capita, due to the absence of economies of scale (Hodge 1996). There is also the possibility that private sector providers will need to be drawn from outside the region. Using contractors from outside the region can produce a significant loss of community management (Ernst 1994) and accountability at the local level, and is often detrimental to local employment. A further problem is the geographical inequity which can result from the proliferation of private services in more affluent and desirable locations, which gives rise to an uneven spatial distribution of services (Ernst 1994) likely to disadvantage regional communities. The impact of outsourcing by the public sector therefore is likely to be keenly felt in depressed, isolated, or regional economies.

1.3.4 Prior research on costs & public sector outsourcing

While government policy promotes outsourcing by the public sector as a means to reduce costs, there is understandably concern that public funds may not be saved by outsourcing. It is also possible that outsourcing occurs for reasons unrelated to cost and financial considerations.

The literature review revealed a lacuna regarding the source of claimed cost savings from outsourcing, and the lack of research on the use of costs and costing information in public sector outsourcing decisions. Further, the theoretical literature fails to address the distinctiveness of outsourcing in the public sector context and is primarily concerned with private sector environments. Much of the theoretical, research and other literature are also based on the presumption that costs and cost-related information are used in outsourcing decision-making, and fail to question this presumption, nor does the literature examine whether costing practices actually in use are those which should necessarily or ideally be used.
Although a wealth of research results exists on the amount of cost savings from public sector outsourcing, there is a dearth of Australian research. Arguably, the most comprehensive international research on the topic by an Australian is Hodge’s (1996) meta-analysis. Of the 129 studies analysed by Hodge, only 11% concerned public sector contracting in Australia. The bulk of the research (66%) was American in origin. Only 26% of the studies concerned state and federal governments, with local government studies comprising the bulk of the sample. Additionally, of the studies capable of classification by discipline area of the authors, only 12% were by researchers in the finance/accounting disciplines, with 35% undertaken by economists. There is clearly a lack of Australian research that is conducted by accounting professionals and addresses the issues of costs and cost savings at all three levels of government.

Furthermore, the results on cost savings reported by Hodge (1996, see pp. 26-29 for a review) are quite equivocal and yet Australian governments nevertheless appear to accept the proposition that cost savings are attainable and attained. Of arguably more importance though, ‘the source of cost savings under competitive tendering [outsourcing] has drawn, surprisingly, much less interest from researchers than the size of cost savings’ [emphasis added] (Ernst 1995a, p. 67). There are suggestions that the source of cost savings are from reductions in service levels or service quality, use of cheaper labour by contractors, existence of economies of scale in contractor firms, or through other efficiencies resulting from competition.

What is not generally considered in the research literature, is the role of costs and how costs are used in outsourcing decision making, and whether costs and cost savings are appropriately and accurately identified and measured. If costing inaccuracies and misuse of costing information are sources of some claimed cost savings then research on the amount of cost savings loses credence and relevance. This point is pursued in depth in Chapter 2 through a critical review of both the methodology and findings of prior research studies on cost savings.

The decision to address these gaps in the literature was both important and justified. As discussed later in this chapter’s summary of the outcomes of the current research (section 1.7), choices of accounting methods were strongly implicated in the validity that could be ascribed to reported cost savings. Further, the uses of costs and cost information in outsourcing decision making in Australian public sector organisations
were significantly different for organisations operating at different levels of government, reinforcing the decision to move away from a piecemeal study to the holistic, 'all of government' approach adopted.

The research presented in this thesis is an attempt to redress the imbalance in a research literature that is based on theoretical justifications pertinent to the private sector, is largely of overseas origin, and is preoccupied with making estimates of the amount of cost savings, rather than with the roles of costs and cost savings.

1.3.5 The need for contextual management accounting research

Any research on the determination and use of costs in a decision-making scenario is inextricably linked to the wider area of management accounting. There is a paucity of research on management accounting practices in Australian organisations (Langfield-Smith & McBride 1989), and that which concerns the public sector is even scarcer. Moreover, there has been little research conducted which considers relationships between management accounting systems (MAS), management strategy and innovation, and the achievement of organisational objectives (Simons 1987; Selto, Renner & Young 1995). Additionally, 'power relationships and political bargaining processes, studies of which would enhance our understanding of systems implementation and use, have largely been ignored' in management accounting research and especially so in that which applies to the public sector (Brignall & Modell 2000, p.282). The research presented in this thesis directly investigates the complex interrelationships between organisational objectives, power and politics, MAS and costing systems, and the use of outsourcing as an organisational innovation.

As well as these prescriptions for topics of research there is also an increasingly popular view within the management accounting research community about the means by which to undertake research. The contention is that accounting is a deeply contextual practice that needs to be studied in situ, preferably using naturalistic methods (see, for example, Hopwood 1983; Kaplan 1984, 1986; Johnson & Kaplan 1987; Young 1999). It is for these reasons that the research design initially uses a case study and qualitative depth interviews to provide richness, before testing the theoretical framework more broadly through the survey method.
1.4 Contribution of the research

This research has implications and relevance for many stakeholders, and contributes to:

- the professional and research literature in management accounting, outsourcing, and public sector reform, by developing, refining and testing theory;
- governments, in improving both the formulation of policy and the outsourcing decision making process in practice, considering that in Australia 'contracting has developed so quickly that it outstrips the capacity of government to monitor what is happening, and so learn from mistakes' (Davis & Wood 1998, p. 85);
- the community at large, which funds and is affected by public sector outsourcing initiatives; and,
- private sector organisations, such as contractors to government, keen to better understand the outsourcing strategies and decision-making processes of the public sector organisations with which they interact.

Specific outcomes of the research and the implications of these outcomes for outsourcing theory, policy and practice are summarised in section 1.7, and discussed in detail in Chapter 6.

1.5 Methodology

Both qualitative and quantitative methodologies were applied in the collection and analysis of data consistent with the critical realist ontology and modified objectivist epistemology adopted. The research paradigm chosen provided the most appropriate means for examining the complexity of outsourcing decisions and the contribution of costs and cost information in making these decisions.

A series of complementary research methods were applied in a structured sequence to build, modify and test a model of the role of costs in public sector outsourcing decision making. Beginning with a critical narrative review and a content analysis study of the literature, a case study of a public sector organisation was then conducted and followed by a series of depth interviews with public sector managers from a range of organisations. The final stage of the research involved the administration of a large-scale survey questionnaire to a broader base of public sector managers.

Qualitative and quantitative data were collected in both natural and more artificial settings. Qualitative data were analysed thematically using techniques such as pattern-
matching and protocol analysis, and quantitative data analysed using a range of
descriptive and inferential statistics including ANOVA and factor analyses. Consistent
with the critical realist approach adopted, the results were subject to tests of
replicability, coherence and consensus, as well as to those of reliability and validity.

1.6 Outline of the thesis

Chapter 1 provides an introduction to the setting for and central question of the
research. The importance of the research is justified on a number of grounds and the
contributions to the body of knowledge and research outcomes outlined. The research
methodology is introduced, and definitions and delimitations critical to interpreting the
research are provided.

Chapter 2 presents a critical narrative review of relevant literature to determine the
theoretical underpinnings that match or reconcile various findings (Hunter & Schmidt
1990). By considering both empirical and other literature, the review provides a
detailed picture of historical, economic, social, political, and behavioural perspectives
on the research issues. Identifying the various weaknesses and gaps in this literature, as
part of the review, led to the discovery of a serious lacuna regarding the source of
claimed cost savings from outsourcing, and the lack of research on the use of costs and
costing information in outsourcing decisions. The narrative review yielded a number of
research propositions, enabling the construction of a tentative model of public sector
outsourcing to guide the research.

Chapter 3 outlines the ontological and epistemological assumptions of the research, and
discusses the research design and strategy and each of the specific research methods
applied. Each method used is defined, discussed in terms of purpose and justification,
the sampling strategy outlined, and the strengths and weaknesses of each method
identified. Data collection, screening, reduction and analysis methods for each step in
the research design are considered, together with the strengths and weaknesses of the
entire design. Triangulation and validity issues are also canvassed in this chapter.

Chapter 4 contains the qualitative analysis of data generated from the case study in a
single public sector organisation and from depth interviews with managers in a range of
other public sector organisations. The analysis is used to clarify each of the research
propositions developed in Chapter 2 and the results and findings are then applied to the
multi-theoretical model, which directs the research, with modifications made to the model in light of these findings.

Chapter 5 presents the analysis of data generated through administration of a survey questionnaire. Approaches to assumption and significance testing are outlined, and descriptive statistics for a number of demographic variables relating to both organisations and manager respondents are provided. Survey data concerning key variables of the research are statistically analysed using ANOVA, factor analysis and other procedures, and are presented in thematic categories related to each of the research propositions.

Chapter 6 discusses the main research findings derived from both qualitative and quantitative analyses reported in Chapters 4 and 5. The findings are then related to the primary research question and to each of the propositions developed in Chapter 2, and compared to the theoretical bases which were also described in that chapter. Conclusions are drawn from the research, and the contribution of the research in terms of implications for theory, policy, and practice are discussed. A number of limitations of the research are identified and suggestions offered for further research.

1.7 Research outcomes

The research provided the means to synthesise theory and develop, build, refine and test a model of the outsourcing decision within the Australian public sector environment. The holistic approach adopted in using a multi-theoretical perspective in model development, modification and testing is a departure from the usual piecemeal approaches of prior research which has sought to test a small set of variables, from a single, usually TCE theoretical position, in more isolated contexts. The emergent model reflects the key unique outcomes and contributions of this research which highlight:

- that the largely anecdotal evidence about outsourcing by the public sector, and the role of costs within this context, is erroneous;
- that Australian public sector outsourcing is as much or more about, internal organisational politics and external political pressure, as it is about costs and cost savings;
- the inadequacy of TCE and economic models in describing, explaining or predicting outsourcing decision-making behaviour of Australian public sector organisation managers; and,
the danger in accepting findings of the outsourcing cost savings research, and in using these findings to shape and inform government policy and organisational practices.

The research results and findings presented in Chapters 4, 5 and 6 of this thesis reveal that costs and costing information serve a relatively unimportant role in the outsourcing decisions of Australian public sector organisations. Rather, political factors related to intra-organisational politics, organisation managers’ party political preferences, government jurisdictional issues, and the influence of government policy and mandates on these public sector organisations are particularly important in driving outsourcing decision-making.

Where costs are of some importance in outsourcing decision-making in particular organisations, the costing methods used are generally inconsistent with the conventional wisdom of management accounting and the relevant costs concept. Rather, cost estimates are: often sourced from inadequate costing systems; not inclusive of both production and transaction cost components; calculated using inappropriate and mixed, inconsistent methods; and, afforded very little importance in establishing the outcomes of decisions. Several non-financial factors, however, are of considerable importance in making outsourcing decisions in Australian public sector organisations. These factors relate to service performance and control, physical and staffing resources issues, and managerial responsibility, and these factors were found to be individually or collectively more important than cost and financial factors.

The research reveals that neither TCE nor contingency theory provide adequate explanations of the outsourcing decisions of Australian public sector organisations, or of the role which costs and costing information play in this decision making. The research also has important implications for the policy and practice of outsourcing – evidencing the poor state of accounting systems and accounting guidance publications used for outsourcing decision making in the Australian public sector. Further, the research establishes that there is inherent risk in both conducting and applying research on cost savings because of the underlying inadequacies of the systems and methods organisations currently use for costing outsourcing decisions.
To adequately communicate these research results and findings it is important to define a number of key terms which are used throughout the thesis.

1.8 Definitions

In an organisational and business context, communication is a process by which to share meaning and achieve coordinated effort and action (O’Reilly & Pondy 1979; Baskin & Aronoff 1980). For communication to be effective, sociological theory suggests that the sender and receiver of a message must possess a common frame of reference (Berger & Luckman, 1966; Goffman, 1974). In research, shared meaning is especially important since ‘the interpretation of the findings of a study depends in part on the way terms were originally defined’ (Anderson, Durston & Poole 1970, pp. 19-20). To provide common referents for the interpretation of the research a number of key terms are defined in this section.

**Accounting** - a recording, measurement, reporting and communication system designed to provide support for the decision-making activities of management, owners, and other parties. The general purpose of accounting and of financial reporting, in both private and public sectors, is to ‘provide information useful to users for making and evaluating decisions about the allocation of scarce resources’ (AARF, 1990, SAC2, para 43).

**Cost accounting** - ‘measures and reports financial and nonfinancial information that relates to the cost of acquiring or consuming resources by an organization’ (Horngren, Foster & Datar 2000, p. 3).

**Management accounting** – ‘the process of producing financial and operating information for organizational employees and managers. The process should be driven by the needs of individuals internal to the organisation and should guide their operating and investment decisions’ (Atkinson, et al. 1997, p. 3).

**Privatisation** – ‘encompasses the sale or lease of government-owned assets to the private sector. It may involve an initial public offering of shares under a prospectus or a trade sale of assets following a competitive tender. It also includes the granting of concession rights traditionally held by government and outsourcing of services traditionally supplied by government’ [emphasis added] (Scales 1999, p. 16).
 Outsourcing - contracting for the provision of a service or good, or execution of a task, previously undertaken in-house, to a third party to perform on the organisation's behalf (Reilly and Tammke 1996). In the Australian public sector, the word 'outsourcing' is generally used interchangeably with the terms 'contracting', 'contracting-out', and 'competitive tendering' (see, for example, Brown 1995, p. 41). However, Gain (1994, p. 36) suggests that 'out-sourcing is what the government does, contracting out or tendering is how they do it'.

Competitive tendering - a process by which outsourcing contracts are often awarded. It can involve private contractors competing against one another, or against an in-house team bid (Ascher 1987) and in some organisations, such as Victorian local governments, competitive tendering is compulsory.

Cost savings - produced when the cost of having an external contractor provide a service is less than the cost of providing the service using in-house resources.

Public sector - that sector of the economy or of community activity and enterprise owned or controlled by the State.

Public sector organisations - in Australia, public sector organisations exist at Commonwealth (Federal), State and local government levels and comprise all government departments and agencies established under the auspices of the Public Service Act 1922 (Cwlth), and each State's Local Government Act. A number of other organisations, such as statutory corporations and authorities, and government business enterprises, are 100% or majority, government-owned and controlled, and are constituted under various other legislation.

For the purposes of this thesis, public sector organisations at Commonwealth and State government levels represent departments and agencies, as well as autonomous, semi-autonomous, or independent divisions and sub-units within those departments and agencies, consistent with the strategic business unit or work unit focus of contingency theory (see Govindarajan & Fisher 1990; Fisher 1995). Autonomy of a division or sub-unit is deemed to exist where the division or sub-unit is individually identified in publicly available government media. In the case of local government, each council is deemed a separate public sector organisation. Consistent with accepted categories of public sector organisations (see O'Faircheallaigh, Wanna & Weller 1999; Taylor & Pincus 1999, pp. 356-358) such organisations exist at Commonwealth (Federal),
State/Territory, and local government levels, and are of three main types: budget-funded organisations, self-funded organisations, and local government organisations.

**Budget-funded organisation** – a public sector organisation (other than a local government) such as a government department, agency, or statutory authority that is predominantly funded by the public purse.

**Self-funded organisation** - a public sector organisation (other than a local government) that is predominantly funded by generating its own revenues, usually seeking to make a profit or surplus. Self-funded organisations generally include statutory corporations, public sector companies, Government Business Enterprises (GBEs), Government Trading Enterprises (GTEs), Government Business Units (GBUs), and government owned or controlled foundations and trusts.

**Local government organisation** – a not-for-profit, commercial, public sector organisation (Taylor & Pincus 1999, p. 358) deriving funds from local ratepayers and State government grants. Local governments include city, shire, municipal, district, rural city, town, rural, and borough councils in each State and the Northern Territory (NT). There are no equivalent organisations in the Australian Capital Territory (ACT).

### 1.9 Delimitations of scope & key assumptions

The crux of the thesis is to determine the role and importance of costs in the outsourcing decisions of Australian public sector organisations. That is, how and why do Australian public sector organisations use costing information in outsourcing decision making; are costs and the realisation of cost savings important, is costing for outsourcing decisions conducted appropriately, and are claimed cost savings reliably identified and measured.

The argument and evidence offered in this thesis are not concerned with determining whether outsourcing is economically or socially desirable. Nor is the research aimed at calculating the amount of outsourcing undertaken by the public sector, the costs of providing public services using in-house resources, or the amount of cost savings that might result from outsourcing for services. While these factors are considered and reviewed, they remain peripheral to the central questions of the research.

The findings presented in this thesis are contemporaneous. Subsequent, significant changes to government policy, law, or other external variables cannot be controlled for in the research. Further, the research is not readily transferable to the private sector,
where other strategic, political, and economic imperatives may exist, nor is the research necessarily applicable to public sector organisations overseas. Numerous other minor delimitations of the scope of the research are a function of the definitions of terms previously presented in section 1.8.

Methodological limitations relating to the underlying ontological and epistemological paradigm adopted, together with the limitations imposed by the research methods selected for use are discussed in Chapter 3. Other limitations of the research, such as the difficulties encountered in accurately identifying self-funded public sector organisations, and the consequences of these difficulties for generalising results, are discussed in Chapter 6.

1.10 Propositions

Eight propositions, derived from the primary and support research questions and developed through a review of the literature (Chapter 2), underlie the research described in succeeding chapters. In quantitative testing related to particular propositions, a series of hypotheses were developed. However, the broader propositions provide a framework for investigating the research question, both qualitatively and quantitatively, and are:

Proposition 1: Cost savings are the most important objective of outsourcing by Australian public sector organisations.

Proposition 2: Outsourcing decisions in Australian public sector organisations reflect a bounded rationality model of choice, contained by public sector political imperatives.

Proposition 3: Australian public sector organisations choose to outsource for services when the purchase and transaction costs associated with external supply are less than the costs of continued in-house provision.

Proposition 4A: The outsourcing decisions of Australian public sector organisations are influenced by human factors of opportunism and goal congruence; and

Proposition 4B: The outsourcing decisions of Australian public sector organisations are influenced by transactional factors of asset specificity, performance ambiguity and complexity, uncertainty, and the competitiveness of markets.

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Proposition 5A: The role of costs and costing information for outsourcing decisions in Australian public sector organisations is influenced by organisation size; and,

Proposition 5B: The role of costs and costing information for outsourcing decisions in Australian public sector organisations is influenced by organisation type, level of government, and organisation location.

Proposition 6: Costing methods used to determine in-house costs for use in making outsourcing decisions in Australian public sector organisations are inappropriate for the purpose.

Proposition 7: Australian public sector organisations use cost information to assess if cost savings have been made from outsourcing, consistent with the cost savings objective of outsourcing.

Proposition 8: Non-financial factors, such as improved service quality, greater flexibility, and access to better technology, are considered in making outsourcing decisions in Australian public sector organisations.

1.11 Conclusion

This chapter has provided the background to and justifications for undertaking the research. The research problem and question were identified, and the benefits of the research to various stakeholders outlined. The methodology used for the study was introduced, together with outlines of the chapters comprising the thesis. Key outcomes of the research were summarised and important definitions provided. The delimitations and assumptions were specified and the research propositions presented. Succeeding chapters of this thesis describe the development of the propositions and the research undertaken to address those propositions.
CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter identifies and reviews seminal and other literature relating to outsourcing decision making and costing for outsourcing decisions in the public sector. The chapter examines the conceptual, theoretical and practical dimensions of costing for outsourcing decisions and the methodologies and findings of relevant prior research studies.

The chapter is presented in the form of a narrative review, the purpose of which is to provide a descriptive and critical assessment of the extant literature. By considering both empirical and other literature the review provides a detailed picture of the historical, economic, social, political and behavioural perspectives on the research issues. The literature review led to the discovery of a serious void regarding the source of claimed cost savings from outsourcing, and the lack of underlying research on the use of costs and costing information in public sector outsourcing decisions. The review unearthed a number of questions and propositions worthy of research and through analytical argument based on this review, a model was constructed of the role of costs and costing information in the outsourcing decision making process in the Australian public sector.

Before the specific issue of the role of costs in public sector outsourcing decision-making can be addressed, a more general overview is required of the context within which these decisions are made. The chapter therefore commences with a brief, historical account of the social, political and economic pressures that have given rise to outsourcing by the public sector.

Having outlined the history of public sector outsourcing, current outsourcing policy initiatives are examined. Various types of outsourcing arrangements are noted and an examination of developments in public sector outsourcing in the United Kingdom (UK), United States (USA) and Australia is provided.

The decision theory perspectives relating to outsourcing decision-making are then examined, together with a consideration of the agency issues involved in both outsourcing and insourcing for the provision of public goods and services. Two major theories proposed to explain outsourcing decision-making are outlined; transaction cost
economics (TCE) and contingency theory. These bodies of knowledge, together with various decision theories and the principal-agent literature, provide the appropriate background for and constitute the parent or antecedent discipline areas of the research, derived from both economic and management thought.

Since the research is concerned with how and why costs are used in Australian public sector outsourcing decisions, cost and management accounting is the immediate discipline area and key focus of the research. The relationships between parent disciplines and between the parent and immediate disciplines are modelled in Figure 2.1

Figure 2.1 Disciplinary relationships

Following a discussion of the parent disciplines, the chapter examines the nature and uses of accounting information, reviewing the purposes of that information within a public sector outsourcing context. Alternative methods of costing outsourcing decisions are examined, and the implications for measuring cost savings achieved through outsourcing are investigated. Both the methodology and findings of prior cost savings research are reviewed and critique offered. The chapter continues with the costs and costing theme, looking closely at the impact of transaction costs on outsourcing decision making, including review of prior research studies on the nature and amount of transaction costs.
Finally, the theoretical foundations provided by the parent disciplines are combined with the issues and evidence derived from the immediate discipline, and with prior research in the area, in order to develop and present an original model of outsourcing decision making in the Australian public sector. The model, refined and tested in later chapters of the thesis, is discussed and is related to a set of research propositions.

2.2 Outsourcing in the public sector

2.2.1 Economic & social pressures in the history of outsourcing
The outsourcing of public sector services was quite common, particularly in the USA, during the late nineteenth century (Campbell 1986). However, questions about private sector corruption, monopolies, and unfair trading and pricing practices were raised, and governments were called upon to provide services using public sector staff and resources. Following World War II, a process of nationalisation of industry began in many countries; taking the responsibility for provision and production of certain services and goods, and even entire industries, out of the hands of the private sector and into the public domain. During the 1960's, citizens pushed for better representation in government, and for the provision or control of some public services by volunteers, community boards and neighbourhood groups. Such events led to the privatisation of public sector goods, services and industries in the 1980s. Many current reforms in the public sector are therefore derived from these historical events and represent 'a coming of full circle on some of the issues' (Campbell 1986, n.p.).

2.2.2 Public goods or public choice
Whether services for the public are provided by the private sector or the public sector is a matter of government policy, and reflects a government's underlying economic philosophy. For example, a 'public goods' approach relies heavily on government intervention to correct market failure and on the public sector to directly provide services commensurate with the achievement of various social objectives (Rimmer 1998). This view accords with the basic principles of Keynesian economics.

By way of contrast, the view that the market mechanism is an appropriate means for the delivery of public services is derived from the principles expounded by Adam Smith, Hayek, and other laissez-faire economists of the 19th and 20th centuries (Freebairn 1998;
Guest 1998). This 'public choice' approach argues against overt government intervention in the functioning of markets and provision of goods and services to the public. The public choice argument is also based on the belief that government bureaucracies offer little incentive for gaining or maintaining efficiencies compared to the market system. Leibenstein (1966) terms this $X$-inefficiency, which refers to the ability of private sector organisations to outperform public sector organisations in producing more output for the same amount of inputs. Such greater productivity has been ascribed to the capacity of private firms to better monitor and provide incentives for workers and management (Alchian & Demsetz 1972; Vickers & Yarrow 1988), and thereby reduce dysfunctional behaviours such as shirking.

The reforms witnessed in the 1980s, through to the present, accord with the public choice or market model. The model informed the policies of both the Reagan administration in the USA, and the Thatcher regime in the UK (Boyne 1998; Guest 1998), whose leadership heralded the privatisation trend now common in most OECD countries.

Faced with the real or perceived need for fiscal restraint, and the notion that the private sector is, by nature, somehow more efficient, productive, innovative and cost effective in providing goods and services, the competitive discipline of private sector corporations has been transplanted to the public sector. The emerging theory of public management means that 'public managers have to shift their focus from observing procedures and rules to considering how their behaviour and decisions will increase the "pay-off" or "value for money" for corporate government' (Koch 1996, p. 33). Public sector decision making should thus be dominated by an economic rationalist approach (Self 1993) in line with this new management paradigm.

2.2.3 Privatisation & the public sector reforms agenda

A wave of public sector reforms swept across most developed nations during the 1970s-1980s. This era of change was heralded by increasing calls for public sector organisations to improve financial information systems and budgeting techniques, develop strategic planning and performance measurement systems, and seek new ways of providing public goods and services. The reforms constituted fundamental changes to the 'bureaucratic paternalism' model of government, toward more market, community, and consumer based approaches (Clarke 1994, p. 118). The emphasis on
managerialism, and in some cases, entrepreneurialism (see Wanna, Forster & Graham 1996) has been a major driver of change replacing bureaucracy and benevolent, and often ineffective administration, with commercial management decision making.

In essence, turning to the market is probably the pivotal public sector reform of the last 20 to 30 years, and is usually termed ‘privatisation’. While privatisation can be succinctly defined as ‘the use of private sector resources in service to the public sector’ (Seader 1986), there are a number of other aspects to privatisation.

Savas (1982) classifies privatisation actions into four basic categories: load shedding; restoration of competition, fees and charges (such as ‘user-pays’ systems), and, alternate delivery systems, of which outsourcing is a prime example. Another privatisation typology (Seader 1986) suggests that privatisation includes the divestiture of public assets to the private sector, the private development of infrastructure facilities, and the private provision, under contract, of public services. However, of all privatisation alternatives, outsourcing is the one most frequently considered (Ferris 1986). The privatisation ‘push’ is driven by a number of objectives:

Privatization includes all activities that would decrease government activity, either by reducing government’s total scope or by merely replacing public functions with private activity. Basically, the privatization movement is an effort (1) to reduce public expenditures, (2) to reform public expenditures by making them more efficient and effective, and (3) to turn more public services over to private operation (Rehfuss 1989, p. 6).

In practice, privatisation consists of a suite of measures to reduce government size\(^1\) and expenditure, and to improve public sector productivity. Examining Rehfuss' definition above, reduction of public expenditures is essentially an economising measure, while efficiency is an attempt to maximise outputs for a given (minimum) set of inputs (Glynn 1993). Effectiveness, often less readily quantifiable than economy or efficiency, relates to the achievement of objectives (Parker 1986). The relationships between these three imperatives are modelled in Figure 2.2.

\(^1\) Although there is considerable debate about the need to reduce the size of government in Australia. See Roche (1993) and Ernst (1993b).
Efficiency, under free market conditions, can relate to both productive efficiency and allocative efficiency (Gain 1994). In the public sector, productive efficiency concerns the internal capacity of public sector organisations to produce and deliver services, while allocative efficiency concerns the use of the entire pool of society's resources. Both types of efficiency are important in the privatisation debate, although the claimed productive inefficiency of the public sector has been central to government advocacy of outsourcing.

Achieving economy, efficiency, effectiveness, and greater accountability have been mainstays of Australian government policy focusing on managerial reforms and privatisation (Keating 1988; Codd 1991). Australian Accounting Standard 29 (AAS29), Financial Reporting by Government Departments, is also aimed at promoting a broad-based concept of accountability and improvements in the efficiency of resource usage and economic decision making within the public sector (Micallef 1994). Similar aims underpin AAS27 Financial Reporting by Local Governments and AAS31 Financial Reporting by Governments.

In terms of public sector outsourcing specifically, the pre-eminent rationale is to economise on costs (see, for example, McDavid 1985; Ferris & Graddy 1986; Touche Ross & Co. 1987; ICMA 1989; Chandler & Feuille 1991; Jones 1993; Messiter 1994; CTC Research Team 1995a; Domberger, Hall & Jeffries 1995; Walsh 1995). Even in the private sector, cost savings are generally the prime key performance indicator of outsourcing (O'Shea 2000, p. 39). This cost savings objective is also accorded predominance in Australian government policy on contracting out (see, for example, Local Government (Competitive Tendering) Act 1994 (Vic.); Barrett 1997; SCPAC 1997; Fahey 1996, 2000), and is recognised by public sector industry bodies as the overarching consideration in outsourcing (see, for example, ICMA 1989; Boyd 1994).
The preceding discussion evidences that Australian public policy, privatisation and other reforms, together with the theory underlying economic rationalism and public choice are based on reducing the costs of government and public sector services. Thus:

**Proposition 1:** Cost savings are the most important objective of outsourcing by Australian public sector organisations.

### 2.2.4 The nature of outsourcing in the public sector

There are many variations in public sector outsourcing arrangements and contracts, and some examples of these alternatives are listed in **Table 2.1**.

<table>
<thead>
<tr>
<th>NATURE OF CONTRACT/S</th>
<th>CONTRACT OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract with:</td>
<td>• a single for-profit firm</td>
</tr>
<tr>
<td></td>
<td>• multiple for-profit firms</td>
</tr>
<tr>
<td></td>
<td>• non-profit or voluntary organisations</td>
</tr>
<tr>
<td></td>
<td>• both public and private sector organisations</td>
</tr>
<tr>
<td>Contract via:</td>
<td>• single contract for an entire service</td>
</tr>
<tr>
<td></td>
<td>• multiple contracts for an entire service</td>
</tr>
<tr>
<td></td>
<td>• single or multiple contracts for part of a service</td>
</tr>
<tr>
<td></td>
<td>• single contract for multiple services</td>
</tr>
<tr>
<td></td>
<td>• multiple contracts for multiple services</td>
</tr>
<tr>
<td>Contract for:</td>
<td>• non-core activities &amp; operations</td>
</tr>
<tr>
<td></td>
<td>• core activities &amp; operations</td>
</tr>
<tr>
<td></td>
<td>• capital programs</td>
</tr>
<tr>
<td></td>
<td>• management or service management</td>
</tr>
<tr>
<td></td>
<td>• support services</td>
</tr>
</tbody>
</table>


Of particular note among the alternatives presented in **Table 2.1** is the distinction made between core and non-core activities. The outsourcing of non-core activities was the fourth most frequently cited reason, of some 24 distinctive reasons for outsourcing, according to the content analysis of literature conducted as part of the current research (refer to Appendix 1). The concept of strategic outsourcing of non-core activities is particularly well documented in the private sector outsourcing literature (see, for example, Venkatesan 1992; Drtina 1994; Quinn & Hilmer 1994, Sunoo & Laabs 1994; Willcocks, Fitzgerald & Feeny 1995). This literature suggests that value chain analysis should precede outsourcing decisions, with the objective being to outsource non-core activities in order to maximise shareholder value. Activities not associated with gaining

---

2 The provision of services by one government department, under contract and on behalf of another, is exemplified in the Australian context by the Maralinga Rehabilitation Project. The project was put up for tender by the Department of Primary Industries and Energy and won by WORKS (formerly Australian Construction Services), which was a business unit of the Department of Administrative Services (ANAO 1996).
or sustaining competitive advantage for the firm are therefore prime candidates for outsourcing. The firm is also likely to benefit by outsourcing those activities that cannot be performed to best practice standards. The focus in the public sector outsourcing literature has also been on outsourcing non-core activities (see, for example Davis, Sullivan & Yeatman, eds. 1997; Trevathan 1999), although recommendations to outsource core functions also exist (see, for example, Koch 1996).

The decision to outsource, under any of the arrangements listed in Table 2.1, is usually made through a competitive tendering and contracting (CTC) framework, although it need not be, unless mandated by Compulsory Competitive Tendering (CCT) legislation or policy. Outsourcing decisions, under conditions of CTC, require comparison between the cost of continued in-house provision of the service and the bids of external suppliers.

The extent to which outsourcing or CTC has infused itself into the regimen of public sector reforms is evidenced by recent government policies in many nations, such as:

- Germany (Kikeri, Nellis and Shirley 1992);
- New Zealand (Boston 1989, 1996, 1998; Cronin 1993);
- Canada (Dzinkowski 2000);
- Denmark (Andersen 2000; Greve 2000; Christensen & Pallensen 2001);
- Japan (Clarke & Pitelis 1993; Hayakawa & Simard 2001);
- Eastern Europe and Russia (Clarke & Pitelis 1993);
- Africa (Marek et al. 1999; Anderson & Van Crowder 2000); and,

However, in most Westernised nations, especially at the local government level, outsourcing is not a new phenomenon (Berenyi & Stevens 1988; SOLACE & LGTB 1988). The background to Australian public sector outsourcing policy is best exemplified by examining the situation in the UK and USA, since reforms in both countries have been influential in shaping policy in Australia (ACC 1988b).

### 2.2.5 Outsourcing by the United Kingdom public sector

British privatisation reforms began with the Labour government's gradual sell-off of British Petroleum in 1977, followed by promotion of outsourcing as a desirable public sector reform in the Tories 1979 election campaign (Moodie 1997). In 1982 the UK Department of Defence began experimenting with outsourcing, while competition between municipalities and the private sector via CCT for the provision of local
government building and construction work (ACC 1988a) was brought about somewhat earlier through the *Local Government and Land Act 1980*. This was followed by the *Local Government Act 1988*, extending the range of municipal services subject to CCT (ACC, ADC & AMA 1988), and with CCT for the management of sport and leisure facilities added in 1989 (Paddon 1991a).

More recently, there have been the British White Paper (1991), EC Directives on CCT, applying to member countries, including the UK (CJC 1991), the government *Guide to Market Testing* (OPSS 1993) and the review of the *Local Government Act 1988* (LGIU 1994). Many of these reports and directives affirmed the importance of outsourcing at national as well as local government level. The switch to a Labour government in the latter part of the 1990s altered, and will undoubtedly continue to alter, the status quo in the UK, by introducing reforms to reduce the level of public sector outsourcing and to abolish CCT at the local government level (Boyne 1998).

2.2.6 Outsourcing by the United States public sector

The use of private contractors has been a significant feature of USA government service provision since the 1960's (Donahue 1989). In the USA a strong capitalist orientation is behind the notion that the public sector, 'seems likely to best function as a market creator, systems manager, and contractor of social tasks rather than as an actual operator of every kind of public service' (CED 1971, p. 52). Under the Reagan administration, the issue of outsourcing achieved prominence following the appointment of the President's Commission on Privatization in 1987 (ACC 1988b).

There have been broad recommendations to outsource at all levels of USA government, including the State level (Lauder Commission 1992); nationally, through federal legislation and the A-76 Program (PCMI 1991); and locally (ICMA 1989). Outsourcing, particularly at the local and state levels, has accelerated in the USA in more recent times (Seidenstat 1996) and will likely continue to do so.

2.2.7 Outsourcing by the Australian public sector

The public sector reform and outsourcing agendas in both the UK and USA are mirrored by developments in Australia, which have followed a similar model (O’Faircheallaigh, Wanna & Weller 1999, p. 11). Australian local governments ‘have contracted refuse collection and road maintenance since the turn of the century’ (Rimmer 1998, p. 75),
however outsourcing by Federal and State government organisations in Australia is a more contemporary phenomenon.

The amount and extent of outsourcing activity in recent times demonstrates the economic significance of Australian public sector contracting. Table 2.2 provides examples of dollar amounts of contracting out by organisations at various government levels. There is however, little information available for the latter half of the 1990s.

Table 2.2 Dollar values of Australian public sector outsourcing

<table>
<thead>
<tr>
<th>Years</th>
<th>Amount</th>
<th>Government level</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-91</td>
<td>$1.2 billion</td>
<td>Commonwealth</td>
<td>MAB 1992</td>
</tr>
<tr>
<td>1991</td>
<td>$20 billion</td>
<td>All levels</td>
<td>Rimmer 1991</td>
</tr>
<tr>
<td>1993</td>
<td>$105 million</td>
<td>NSW GTEs</td>
<td>Domberger &amp; Farago 1994</td>
</tr>
<tr>
<td>1993</td>
<td>$430 million</td>
<td>NSW budget-funded</td>
<td>Domberger, Farago, Hall &amp; Li 1993</td>
</tr>
<tr>
<td>1993-94</td>
<td>$1 billion</td>
<td>NSW State government</td>
<td>Industry Comm. 1996</td>
</tr>
<tr>
<td>Mid-1990s</td>
<td>$8 billion</td>
<td>Commonwealth</td>
<td>Industry Comm. 1996</td>
</tr>
<tr>
<td>Mid-1990s</td>
<td>$3.3 billion</td>
<td>State governments</td>
<td>Industry Comm. 1996</td>
</tr>
<tr>
<td>Mid-1990s</td>
<td>$2 billion</td>
<td>Local governments</td>
<td>Industry Comm. 1996</td>
</tr>
<tr>
<td>1994-95</td>
<td>$1.85 billion</td>
<td>Commonwealth</td>
<td>Domberger, Hall &amp; Jeffries 1995</td>
</tr>
<tr>
<td>1994-95</td>
<td>$1.48 billion</td>
<td>NSW State government</td>
<td>CTC Research Team 1995a</td>
</tr>
<tr>
<td>1996</td>
<td>$3 billion</td>
<td>Commonwealth (IT services only)</td>
<td>See Lawson, M. 1996</td>
</tr>
<tr>
<td>1996-7</td>
<td>$1.76 billion</td>
<td>NSW State government</td>
<td>See Jacobsen (1997)</td>
</tr>
<tr>
<td>2001</td>
<td>$4.8 billion</td>
<td>Commonwealth (IT &amp; communication services only)</td>
<td>East and Partners (2001)</td>
</tr>
</tbody>
</table>

Disparities in some of the figures presented in Table 2.2 are explained by a number of factors. Firstly, Rimmer (1991) acknowledges that his figures are estimates only. Secondly, figures for the Domberger et al. (1993, 1994, 1995) and CTC (1995) studies are based on survey results from many, but not all organisations or contracts at particular government levels. The Industry Commission figures are also estimates and exclude those for several states and territories.

When the results presented in Table 2.2 are combined with outsourcing by other budget-funded, self-funded, and local government organisations, and those for other States, it is quite apparent that outsourcing by the nation’s public sector is of economic significance. While some outsourcing activity has been directly initiated and driven by public sector organisations and their management, much is the result of organisations conforming to the demands of government policy.
2.2.8 Australian outsourcing policy

Prior to the mid 1990s the development and application of outsourcing policy for different levels of government and in various states of Australia was quite patchy, although a number of occurrences in the 1980s are cited as promoting the growing shift in outsourcing from sidelines to centre stage. These occurrences included Federal micro-economic reforms in the Hawke era, huge budget deficits experienced by State governments (especially in Victoria and South Australia), and the sell-off of most Commonwealth government-owned enterprises (Davis & Wood 1998). Reform continued throughout the Keating Prime Ministership and more latterly, the reform agenda was 'reinforced by the Howard government, and its greater emphasis on the private sector as a contractor or direct provider of public services' (Barrett 1997, p. 31).

Perhaps the most important advance in Australian public sector outsourcing policy was the Hilmer Report (1993), which resulted in a National Competition Policy (NCP) to promote competition in the provision of public services, including competition generated through outsourcing. The NCP is contained in the Commonwealth Policy Reform Act 1995, and applies to local, State and Federal levels of government.

Prior to the NCP any decision to outsource by a Commonwealth department or agency had to be evaluated within the framework of both legislative requirements and Government policy as laid down in the Audit Act 1901, Finance Regulations and Finance Directions. Jointly this policy and legislation covered a number of considerations in making outsourcing decisions, especially in determining the costs to be included in cost-benefit analysis of outsourcing decisions (Bisman 1999). Following the 1995 adoption of the NCP, the outsourcing agenda, at all government levels, was furthered after a year-long review of contracting and competitive tendering by the Industry Commission (1996). The NCP is closely monitored by governments, and particularly so in certain industries\(^3\) (ACCC 2001).

Each Australian State government is subject to a barrage of recommendations and requirements to outsource and engage in competitive tendering and many of these recommendations predate the NCP. On a local government level the political and legislative impetus to outsource is often far greater. Local governments appear to

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\(^3\) These industries, in which public sector organisations have a lead role, include transport, rail, airports, electricity, and telecommunications.
contract out a much higher percentage of total expenditure than other levels of government (Industry Commission 1996). Policy on outsourcing for local governments is normally contained in the various State *Local Government Acts*.

Government policy and mandates on outsourcing, procedures for competitive tendering, and recommendations or requirements relating to costing for outsourcing decisions appear in a diverse range of government and public sector literature, including legislation, government policy statements and media releases, and costing guidance publications. The net effect of all such decrees or recommendations is to:

- require or encourage outsourcing by the public sector;
- promote competition between the private and public sectors in the provision of public services, in line with NCP;
- specify the procedures and processes that either must or should be adopted in putting public sector services out to competitive tender; and,
- prescribe or suggest the basis for costing in-house services for comparison with tenders.

Examples of such policies and publications include the New South Wales (NSW) July 1991 Financial Statement, the March 1992 ‘Facing the World Statement’ and the 1992/93 budget speech; all of which ‘reaffirmed the government’s commitment to its contracting out policy’ (Messer 1994, p. 54). These edicts were reinforced in the 1993 NSW Government’s Contract Steering Committee’s commissioning of a contracting out research team, and in the 1994/95 budget papers and 1995 Financial Statement (CTC Research Team 1995a). In early 1996 the NSW government produced its *Outsourcing and Contract Management Guidelines*, and in 1997 released their *Service Competition Guidelines* (SCPAC 1997), following the establishment of the Council on the Cost of Government (COCOG).

Other states have similar policies, edicts and guidelines. For Western Australia (WA), these include the McCarrey Report (1993), the *Public Sector Management Act 1994 (WA)* and *Contracting Costing Guidelines* (WA Government 1995). In Victoria (Vic) an Outsourcing and Contract Management Unit was established in the 1990s and moves were taken to privatise (outsource) the role of the Victorian Auditor-General, under the Victorian Review of the *Audit Act 1994*. South Australia (SA) has had fairly comprehensive outsourcing policy for some time and guidelines have been produced by a number of departments including the Office of Public Management. Outsourcing in
Northern Territory (NT) government commenced in large part following the 1991 decisions of the Expenditure Review Committee (DOFA 1996).

At the local government level, State government edicts, such as the NSW Oakes Shehadie Report (1990), encouraged local councils to call for tenders as a means of benchmarking and reducing costs. Later, the NSW Government (1991; 1996) proposed changes to local government, requiring tendering for certain types of public works, and following the introduction of the NCP, produced a Policy Statement on the Application of National Competition Policy to Local Government. Other states have followed a similar pattern, including the South Australian local government reform report (MAGLGR 1995), and mandatory compulsory competitive tendering in Victoria, through the Local Government (Competitive Tendering Act) 1994 (Vic).

As an example, the Victorian competitive tendering legislation requires 50% of the total operating expenditure of a local government organisation to be market tested through CCT. Therefore, if a council had total annual operating expenditure of $1 million, then according to the Act, the organisation would need to put up for competitive tender (seek to outsource) services to the value of 50% ($500,000) of this expenditure. If external suppliers’ bids were less than in-house costs, the Act would expect the organisation to outsource. In fact, with AAS27’s exclusion of depreciation as operating expenditure, up to 80% of expenditure can actually be subject to CCT under the Act (Murfitt, Glanville & Ernst 1996). On this basis, in the 1998-99 financial year, the Shire of Melton (1999) in Victoria was required to subject 67.6% of its expenditure to competitive tendering.

Other government policy or guidelines concerning outsourcing decision making are less arbitrary in their form and intent, and concentrate more on the process and procedures for making outsourcing decisions. For example, the NSW Service Competition Guidelines (SCPAC 1997) include a policy statement, based on the Treasurer’s Financial Statement (NSW Treasury 1995), procedures for undertaking competitive tendering, and guidance on costing in-house provision of services for comparison with external bids. The competitive tendering procedures recommended in this and most other publications for or by the public sector outline procedures which take a form similar to that illustrated in the flow diagram of Figure 2.3.
As illustrated in Figure 2.3, public sector outsourcing decisions will involve considering many issues; foremost are those relating to cost, public policy, competition, efficiency, and effectiveness. These considerations are all integral aspects of privatisation and public sector reforms.
While the Howard government remains committed to outsourcing (see, for example, Fahey 2000), several recent complications have arisen in implementing its outsourcing policy. These complications include court rulings, the Goods and Services Tax (GST), and shifting State government policies.

Recent Federal Court decisions ‘have pulled the rug out from under the widespread use of outsourcing during the 1990s to reduce labour costs by shifting work to employees on lower wages and conditions’ (Long 1999a, p. 27). The decisions, beginning with the precedent set in *North Western Area Health Service v HSUA*, are founded on the provisions of Section 149(1)(d) of the *Workplace Relations Act* (Cwlth). This section of the Act provides that persons bound by the requirements of an award include ‘any successor, assignee or transmitee’, including a corporation which acquires or takes over all or part of a business. While at least one decision concerns outsourcing by the private sector, the landmark health service case, a Telstra outsourcing proposal case, and a home-care workers’ case in Victoria, concern public sector organisations and in all cases, the decision has been unfavourable to the organisations concerned.

These court decisions provide that if the work performed by a contractor is substantially the same as that previously performed in-house, then the contractor is required to meet award conditions which are the same as those originally applying to the in-house workers. The effect of such decisions is to deny organisations the opportunity to reduce costs by outsourcing to contracting companies that utilise cheaper labour. Furthermore, ‘unions are preparing claims for backpay for potentially thousands of workers in all tiers of government who suffered cuts in pay and conditions when their jobs were contracted out’ (Long 1999b, p. 3). Such claims not only reduce the potential for public sector organisations to make cost savings in future, but could also wipe out past cost savings. That outsourcing will become less attractive as a result of these decisions is plausible since evidence exists to indicate that while productivity improvements are the highest ranked source of cost savings from outsourcing, ‘reductions in employee conditions and earnings are also highly ranked’ (McMaster 1996, p. 463).

In the first quarter of 2001 the effect of these decisions was partially reversed when the Federal Court ruled that employees of Stellar Call Centres Pty Ltd. were not entitled to the same pay rates as Telstra employees because the work was not a core activity of Telstra.
While this decision limits the conditions under which contractors will have to meet the same terms and conditions of employment as prior in-house providers offered, 'complications [will] increase when the contracted provider hires former employees of the client organisation' (Lunny, quoted in *Business Law Update* 2001, p. 4). The decision is also important in terms of the distinction between outsourcing for core and non-core activities, as discussed earlier in section 2.2.4.

Further, with the introduction of the GST in mid-2000, outsourcing by public sector organisations became even less attractive. 'A by-product of the new tax system is that it might discourage contractor (as opposed to employee) arrangements. This is because employee arrangements are exempt from the tax; contractor arrangements are not' (Richards 1999, p. 50). The tax will thus increase the direct costs of outsourcing, relative to in-house costs. It may also affect the indirect or transaction costs associated with outsourcing as organisations, both contractors and those engaging contractors, needed to develop new systems and procedures for tax administration and compliance, and for the public sector this was estimated to be very costly (Paice 1999).

Much like the Federal Court decisions, the GST also has the potential to negate past cost savings. This is because contracts entered into before the tax became effective are subject to GST if the contract expiration date is beyond the GST effective date. As Barrett (1999, p. 15) warns, 'GST may need to be paid on part or all of a transaction, contract or agreement that an agency has already entered into or may enter into between December 1998 and the ... implementation date of GST on 1 July 2000'.

Other recent political changes and electoral issues are also important. At the Federal level, $1.2 billion worth of IT outsourcing was put on hold in March 2001 pending the results of the next Federal election, causing dismay among potential contractors (Broughton & Chalmers 2001; Connors 2001, p. 3). In another development, the 1999 NSW State government election promised increased outsourcing by the public sector regardless of which political party became the victor. The Coalition's election platform included policies for privatisation and outsourcing of aspects of the public health, rail and road systems. For the actual victor 'the likelihood of increased outsourcing is also easy to predict under a NSW Labor Government which is desperate to push through costs savings having been deprived of its one-off bonus of privatising electricity' (Washington 1999, p. 18).
The re-elected Labor government’s commitment to furthering outsourcing by the NSW public sector included an initiative to introduce CCT for road works and road maintenance contracts in local government. Delegates to the Local Government Association (LGA) annual conference in Dubbo in early November 1999 resoundingly voted against such a move. By the end of November the State government abandoned the initiative, and this was particularly ‘welcomed by rural and regional councils concerned about job losses’ (WIN News 1999).

Changes in Victoria have mirrored those in NSW. A major advance in furthering the Kennett government’s strong commitment to outsourcing by the public sector was the Maddock Report (Maddock, Dahlsen & Spencer 1997). The Report concerned a review of the Audit Act 1994 in terms of implications for the continuing implementation of the NCP in Victoria. The upshot of the report was a recommendation that the functions of the Victorian Auditor-General be outsourced. The acceptance of the recommendations and subsequent passing of the Audit Amendment Act (Vic) had the effect of stripping the Victorian Auditor-General’s office of the power to perform audits (Bowran 1999). From mid-1998 a body called ‘Audit Victoria’ manages and employs auditors with audit work subject to a mandatory tender process (Houghton & Jubb 1998).

A turn-around on Victorian outsourcing policy was however expected following the late 1999 Victorian State election. In contrast to the politics of the re-elected NSW Labor government, the change to a Labor government in Victoria is likely to decrease requirements for the public sector to outsource. Part of the Victorian Labor government’s election campaign were promises to wind-down CCT.

### 2.2.9 Applying outsourcing policy

While there are several hurdles to be overcome in implementing outsourcing policy in the new millennium, the effect of various government guidelines and policies is still to encourage or require most public sector organisations to engage in outsourcing. Despite the edicts and policies, there appears to be no feasible way for governments to fully prescribe the methods by which these organisations actually make outsourcing decisions, and consequently it is likely that a variety of approaches are adopted.

In studying outsourcing, Lonsdale and Cox (1998, p. vii) found that approximately 50% of the ‘very large number’ (\( n = \) undefined) of private and public sector organisations
they examined were 'using tools, techniques and models ... less sophisticated and robust than those which are freely available in the public domain'. In particular, the organisations had no long term plans for their outsourcing activities, made decisions on a case by case basis, and were 'reinventing the wheel' by developing their own models and tools.

In practice many outsourcing decisions might best be categorised, using March and Simon’s (1958) terminology, as non-programmed, non-routine decisions. Such decisions can involve both uncertainty and ambiguity. While economic rationalism presupposes a particular model of decision making, there are nevertheless a number of approaches to making decisions. Decision theory provides a useful classification schema for considering how outsourcing decisions might actually be made.

### 2.3 Theories of decision making

All decision models have in common the specification that decision-makers will require information about alternatives, consequences and preferences. *Figure 2.4* illustrates these basic steps in the decision process.

*Figure 2.4 Basic steps in the decision process*

1. Identify problem
2. Determine alternatives \([a_1, a_2, \ldots, a_n]\)
3. Forecast consequences \([c_1, c_2, \ldots, c_n]\)
4. Select preferred consequence \([c_i]\)
5. Take action \([a_i]\)
6. Monitor and evaluate the chosen course of action \([m(a_i) e(a_i)]\)

While Figure 2.4 illustrates the common steps, individual decision theories or models vary in terms of how alternatives, consequences and preferences are determined. Differences between theories and models also depend on whether the theory offers a prescriptive view of the decision process, or a descriptive model of actual decision making practice. Within a management accounting context, Belkaoui (1980) and Fatseas, Bisman & Williams (2001) suggest that relevant decision theories include:

- the rational model;
- bounded rationality;
- disjointed incrementalism;
- political model;
- organisational procedures model; and,
- anarchical model.

2.3.1 The rational model

The rational model is prescriptive, identifying the ‘ideal’ decision process that should be followed for making optimal decisions. It is based on the assumption that humans are rational beings who have the capacity to determine and consider all alternatives, have complete information, and always choose the alternative which maximises expected utility. The model assumes that the search for alternatives is costless and that decisions are made by one individual, pursuing a single goal.

As previously discussed in section 2.4.2, economic rationalism provides the basis for current public sector outsourcing policy and consequently, for the emphasis on cost reduction as the primary objective of outsourcing by the public sector. While it might be convenient to assume that economic rationalism presupposes the adoption of the rational decision model, this is not the case. Economic rationalism, when applied to outsourcing, is in part derived from TCE. TCE does not assume that humans are ‘perfect’ decision-makers. Rather it assumes that they are bounded rational decision-makers.

2.3.2 Bounded rationality

The bounded rationality or satisficing model of choice relaxes a number of assumptions associated with the purely rational view. The theory, proposed by Simon (1955), suggests that rather than being maximisers, decision-makers are satisficers, who choose the best alternative within the limits of practicality. The main limitation is imposed by cognitive boundaries, meaning that humans do not have the knowledge, experience or capacity to process information relating to all decision alternatives and consequences.
Decision-makers are therefore rational within limits, choosing the best course of action from the available, though limited set of alternatives.

Since public sector organisations are controlled by governments, composed of politicians, there is likely to be a political dimension to bounded rational outsourcing decisions. Consequently, the policies, guidelines and imperatives, imposed by the government of the day affect public sector outsourcing decisions. Such political imperatives impose additional boundaries or limits on the satisficing outsourcing decision making of public sector managers.

2.3.3 Other decision models

Of the other decision models, disjointed incrementalism and the political model are the ones most commonly associated with the public sector. Given the traditionally bureaucratic nature of the public sector, the organisational procedures model of choice may also be relevant, and in some cases the anarchical model might best describe the ex post facto rationalisation of actions by some politicians and bureaucrats.

Like bounded rationality, disjointed incrementalism (Lindblom 1959) assumes that information search costs and decision-makers’ cognitive limitations often prohibit the use of a rational approach. It suggests that both individuals’ intellectual capacities and information sources within organisations are limited. Disjointed incrementalism, also known as ‘muddling through’, involves a process of marginal or incremental adjustment to policy which is deemed or found to be unsatisfactory, instead of complete revision of that policy. It suggests that public sector decision making is a remedial process. The theory also posits that objectives are difficult to clarify, often because of social conflict, and that goals might instead be set based on what is viable, rather than what is ideal.

The political model (see, Pfeffer 1981) may also provide insight into the outsourcing decision making of public sector organisations. While the roots of this model lie in mid 20th century political science concerning the operation of the legislative process, the political model can be used to describe decision-making behaviour within organisations (Eisenhardt & Zbaracki 1992). The model is characterised by a lack of formalised, set goals, by conflict and use of power in reaching decisions, by the building of coalitions and alliances, and by compromise.
Choice thus becomes dependent upon persuasion and bargaining and on the power wielded by individuals or groups of individuals acting self-interestedly. Under such a decision model, criteria for decision making might be used selectively, and information withheld.

The key aspects of this model are that organisations can be viewed as political systems, that decisions are the preferences of powerful members within the organisation, and that people will engage in observable, but often covert actions to enhance their power to influence a decision (Eisenhardt & Zbaracki 1992, pp. 23-26). External political influences and government mandates and policy aside, there is potential for internal organisational politics to affect outsourcing decisions. Such influences and effects are likely since outsourcing decisions are resource allocation decisions. 'Resource allocation is a major area of organizational politics because control over resource allocation is a major exercise of power which can be directed toward gaining strategic advantage inside the organization' (Byrd & Moore, 1982, p. 181).

The organisational procedures model of choice (Cyert & March 1963) has dimensions reflecting both the satisficing and political models. The model derives largely from, and is an extension of the bounded rationality framework, taking decision making out of the hands of the individual and into an organisational context. Similar to the political model, the organisational procedures model sees organisations as consisting of individuals who form coalitions and who engage in bargaining behaviour.

The model proposes that each problem or decision is within the provenance of a particular coalition within the organisation. Each coalition has its own agreements, imposes constraints, and solves issues by the use of rules known as Standard Operating Procedures (SOPs). Decisions thus involve a search for an appropriate pre-existing 'rule' to cover the situation or the development of a new rule if a new situation is encountered. Sometimes SOPs are documented in administrative manuals, and sometimes they are merely generally agreed upon procedural precedents. The idea of such formulaic responses to problem solving and decision making translates well to a traditional public sector organisation setting where administrative and bureaucratic functioning has been the norm. Whether this models applies well to modern public sector organisations, where managerialism is supposed to have replaced bureaucracy as the predominant operating paradigm, is a more difficult question.
From an outsourcing point of view, application of SOPs might well provide an adequate basis for decision making in routine contracting situations. Certainly there is a large quantity of government promulgated directives and guides on outsourcing decision-making and costing for outsourcing decisions which may constitute a form of SOPs. However, since many outsourcing decisions are non-routine problems, it is difficult to prescribe a set resolution procedure to cover all situations.

Alternatively, Cohen, March and Olsen (1972) see organisations as organised anarchies, within which there are no clear, overarching goals, no predefined preferences, and unlike one of the basic tenets of the political model of choice, no powerful participants. In the anarchical or garbage can model, chance plays a large role in determining the decision made, as a decision will depend upon which individuals happen to be available, at any particular time, to participate in making it. The anarchical model might well apply to public sector organisations since it stresses that the absence of pre-existent goals and preferences produces the need to justify a choice after it has been made. As discussed in section 2.8.2, politicians and public servants sometimes rationalise or extemporise decisions and actions after the fact. Eisenhardt and Zbaracki (1992, p. 28) contend that much empirical evidence, largely derived from government organisations, supports the anarchical model.

The adoption of a particular approach to decision-making, either by individuals or by an organisation's management team, affects more than just the process of making choices. For example, accounting and costing information may be accorded different priority and usage under each decision model. So too, each model can produce different decision outcomes. While all, some or none of these models might be representative of public sector outsourcing decision making behaviour, the most important question is whether appropriate decisions are being made.

2.3.4 Evaluating decision-making behaviour
Following government policy, the primary question for the Australian public sector in making outsourcing decisions should be whether choosing to outsource produces cost savings for the organisation. There is thus a presumption that a rational or, in practical terms, bounded rational model of decision making is used.
Figure 2.3, presented earlier, described a public sector framework for competitive
tendering decision making which was derived from extant guidance on how to make
outsourcing decisions. It exemplified the prescription of a bounded rational approach to
decision making; one that is bounded not only by information availability but also by an
overarching consideration of political and public policy issues. Therefore, it would be
expected that:

**Proposition 2:** Outsourcing decisions in Australian public sector organisations
reflect a bounded rationality model of choice, contained by
public sector political imperatives.

While decision theories offer insight into how outsourcing decisions might be made,
other theoretical foundations also inform the outsourcing process. Varyingly derived
from economic and management thought, these theoretical bases address the
fundamental question of structure inherent in outsourcing decisions. That is, whether to
outsource, or to continue to provide a good or service using in-house resources.

### 2.4 Theoretical foundations of outsourcing decisions

There are a number of ways to view the practice of outsourcing. It can be seen as an
element of the principal-agent relationship (agency theory), as an alternative
institutional arrangement resulting from organisational failure (TCE), or as a response to
a variety of strategic, environmental and other variables (contingency theory).

#### 2.4.1 Agency theory

In discussing agency theory, Jensen (1983, p. 319) maintains that ‘because accounting is
an integral part of the structure of every organization, the development of a theory of
organizations will be closely associated with the development of a theory of
accounting’. The outsourcing issue reinforces this point. Agency theory is concerned
with when and why organisations exist, how contracts and contracting affect
organisations, and what role costs play in establishing the nature of contracts and of
organisations.

Agency theory views the organisation as a nexus of contracts where the principal
engages the agent to perform services on the principal’s behalf (Jensen & Meckling
1976). The central problem considered in agency theory is how to best structure the
relationships between principals and agents. The relationship is established and
maintained through contracts that should be designed to ensure agents act in the best interests of principals.

Where there is information asymmetry, it is assumed by the principal that the agent requires incentive to work for the good of the principal, otherwise the agent, assumed to be a utility-maximiser, will act according to his or her own self-interest, which may result in shirking and other dysfunctional behaviour. Agency theory is often applied to explain and predict intra-organisational relationships; specifically the actions of managers (as agents) compared to the objectives of owners (as principals). However, agency theory can also be applied to public sector organisations, and to outsourcing.

At the most basic level, accountability concepts used in the context of the public sector derive directly from the principal-agent framework. To confirm if public servants act in the best interests of the government and the public, a monitoring and accountability regimen is established to ‘ensure that civil servants will deliver cost-effective programmes’ (Lapsley, Llewellyn & Mitchell 1994, p. 39). The agency theory framework can be extended to explain the higher costs of public bureaucracies compared to the private sector, by viewing public sector managers and bureaucrats as agents, and elected officials (councillors, ministers etc.) as principals. The presumption is that bureaucrats (agents) have an informational advantage over principals, through superior knowledge of production costs. In other words, information asymmetry exists, and together with the lack of property rights to residuals (i.e. the difference between budgeted and actual costs), there are reduced incentives for bureaucrats to minimise costs, while incentives to create budget slack are increased (Ferris & Graddy 1991).

Davis and Wood (1998) suggest that one response to the control of opportunistic agents (public servants) seeking to capture organisations to further their own agendas is to introduce contracting by opening up internal operations to tendering and competition. This may have the effect of constraining public sector managers from overcharging the ‘owners’, thereby keeping costs down and introducing efficiency. In this instance, cost reduction by outsourcing is not necessarily the objective. Rather, increased control of agents and the achievement of internal efficiencies are desired by using the ‘threat’ of market competition. Certainly in the often ‘spend it or lose it’ public sector budgetary environment, the creation of budget slack can be promoted, the cost of in-house provision of services therefore unnecessarily inflated, and the relative perceived benefit
(savings) of outsourcing made more attractive. It follows that the 'threat' of outsourcing might promote a search for internal efficiencies as a prelude to actually considering the outsourcing alternative.

In a public sector outsourcing situation, market and inter-organisational relationships are also important, where the public sector organisation can be viewed as the principal, and the external supplier as the agent who delivers services to the public on the principal's behalf. In this case, the principal-agent separation is clearer and the property rights more explicit (Walsh 1995).

There are a number of costing and accounting issues which arise in examining agency theory in relation to outsourcing. First is that contracting is not costless. There are many costs involved in developing, writing and executing contracts. Second, ensuring compliance with the contract requires the principal to monitor the agent's actions over the course of the contract. Monitoring is necessary as a result of the basic principal-agent conflict. Both the preparation and initial undertaking of contracts will incur costs, as will steps taken to ensure subsequent compliance with contract conditions and specifications. These costs are known collectively as agency costs. Agency theory posits that monitoring will always be imperfect because of the agency costs involved.

A 'complex organisation survives when its nexus of contracts sets up an incentive structure that allows outputs to be delivered at lower prices than other forms of organisation' (Fama & Jensen 1983, p. 3). Thus organisational forms, differentiated by their decision systems, survive because of contract-cost advantages. Agency theory would therefore predict that organisations outsource when the production and agency costs associated with doing so are lower than those of continued in-house production. Clearly then, to make an outsourcing decision an organisation would need to know in-house production costs, the market price of external supply, and the agency costs involved in writing and monitoring contracts. Agency theory thus posits a highly significant role for cost information in outsourcing decision-making.

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4 The usage of the term 'production cost' in this context relates to either the in-house cost of producing or providing a good or service, or to the contractor's market price/bid which will supplant the in-house production cost if the outsourcing alternative is adopted.
Because of the close linkages between accounting theory and organizational theory (Jensen 1983, p. 319) agency theory has been widely applied in accounting research (see, for example, Watts & Zimmerman 1986), including research on aspects of management accounting systems (see for reviews, Baiman 1982, 1990; Scapens 1991). Horngren (1989) and Scapens (1983) suggest that the viewpoint adopted by agency theory, and information economics approaches, is more realistic in providing an understanding of managerial behaviour, than pre-agency, management accounting theory. Horngren (1989, p. 27) asserts that management accounting research of the 1950s-60s focused on the relevant costs concept, and how relevant accounting information led to motivation of particular types of managerial behaviours. With the introduction of agency theory and other economic models in the 1970s, the reverse situation was shown to be applicable. That is, given managers’ motivations, agency theory can provide some explanations concerning what accounting information is likely to be relevant to managers in decision making. Such an insight also suggests reasons why a variety of costing systems and methods might be applied in making outsourcing decisions.

Agency theory has been reviewed in-depth by numerous authors (see, for example, Eisenhardt 1985, 1989; Levinthal 1988) and is not without its critics (see, for example, Perrow 1986; Nilakant & Rao 1994; Donaldson 1995a). Significant limitations of the theory include the nature and restrictiveness of the underlying assumptions and variables, and of the capacity to mathematically model something as complex as managerial behaviour. In instances where observed phenomena have not been explicable using agency theory, researchers resort to including unknown and unmodelled agency and political costs to explain divergences from the model (Baiman 1990). The linkages between agency theory, accounting systems, and organisational structure are not, as yet, particularly strong or well developed. Some commentators even consider that agency theory has no useful role to play in accounting research (see, for example, Anthony 1989).

Agency theory, together with TCE constitute the organisational economics approach (Barney & Ouchi 1986) to understanding the nature and structure of organisations. Baiman (1990) suggests that agency theory and TCE are not alternative theories, but rather that the principal-agent literature, TCE, and the Rochester School literature, are all aspects of agency theory. The principal-agent aspects of agency theory illustrate the
need for contracting but not the form or type of arrangement of contractual transactions. The TCE agency view goes this further step and has the potential to provide a more comprehensive explanation of the types or form of contracting preferable under various conditions.

2.4.2 Transaction costs economics

TCE is also known as contracting cost theory, the new institutional economics, the economics of internal organisation, and the markets and hierarchies framework, and is founded upon the literature concerning the theory of firms and markets, organisational theory, non-strategic purposes, and business history (Williamson 1981). TCE derives principally from the work of Coase (1937). Coase was the first person in the literature to recognise that there are transaction costs involved in using the price mechanism and that organisations and markets represent alternative means for engaging in economic exchanges. Opportunism by suppliers (self-interested behaviour with guile) and uncertainty can make the price or market system costly to use and therefore firms exist to minimise transaction costs. TCE is largely the work of Williamson (1971, 1973, 1975, 1981, 1985, 1991a, b, c, 1992, 1993a, b, c), who contends that:

the basic hypothesis out of which transaction cost economics works is that of discriminating alignment: transactions, which differ in their attributes, align with governance structures, which differ in their cost and competence, so as to effect a transaction cost economizing outcome (Williamson 1996, p. 138).

A transaction cost results from ‘any activity which is engaged in to satisfy each party to an exchange that the value given and received is in accord with his or her expectations’ (Ouchi 1980, p. 130), and is in essence the same as an agency cost. The theory suggests that organisations will choose either to produce in-house under a ‘hierarchy’ governance structure, or to outsource by using the ‘market’ alternative, depending on which option is most cost-efficient in minimising both production and transaction costs.5

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5 There are however, alternatives to markets and hierarchies. One is the clan structure proposed by Ouchi (1980), and which possesses social mechanisms that produce high levels of goal congruence, thereby reducing transaction costs. Later, Williamson (1985) introduced a ‘hybrid’ governance structure around the mid-point on the market-hierarchy continuum. Still others (eg. Gilroy 1993; Hakansson & Johanson 1993; James & Weidenbaum 1993) suggest alternative governance structures such as ‘networks’ or ‘strategic alliances’. Strategic network proponents (see for example, Jarillo 1993), like TCE theorists, suggest two main ways to organise economic activity - vertical integration and subcontracting.
The basic market or hierarchy choice can be modelled quite simply. Combining the transaction cost equation of Jarillo (1988) with the bureaucratic cost concept (Jones and Hill 1988), the choice of market or hierarchy for a good or service, in a single organisation, can be defined using the following equations (Morkel 1993, p. 395):

\[
\begin{align*}
\text{if: } & C_i + C_h > P + C_t \text{ use the market and outsource} \\
\text{if: } & C_i + C_h < P + C_t \text{ use the hierarchy and produce in-house}
\end{align*}
\]

where: \( C_i = \) internal cost of production \( P = \) price paid to buy in \\
\( C_h = \) hierarchical cost \( C_t = \) transaction cost

TCE supports the notions that cost economising is the primary goal of outsourcing and that decision-makers are boundedly rational. Therefore:

**Proposition 3:** *Australian public sector organisations choose to outsource when the purchase and transaction costs associated with external supply are less than the costs of continued in-house provision.*

TCE is usually used in explaining the existence of organisations, rather than in explaining the outsourcing activity of organisations. Presented in the usual sense, TCE suggests that as market imperfections increase, so do the costs of monitoring and surveillance (transaction costs), until a point is reached where the market fails and the hierarchy or bureaucracy becomes the most cost-efficient means for organising transactions (Williamson 1975). In other words, organisations exist when they can mediate transactions between members cheaper than can the market (Ouchi 1980). The following adaptation from Helper (1993) provides a general model of Williamson’s (1975, 1985) theory, which serves to summarise the basics of TCE:

\[
\min C(T, X) + G(H(T), E(T), O, X)
\]

The goal is to minimise (min) total cost, both production and transaction costs, where:

- \( C = \) production costs, which are a function of:
  - \( T = \) technology; and, \( X = \) level of output
- \( G = \) transaction costs, which are a function of:
  - \( H = \) bounded rationality and opportunism, as modified by \( T \);
  - \( E = \) environmental or transactional factors, which include uncertainty/complexity and asset specificity, as modified by \( T \);
  - \( O = \) organisation form (either market or hierarchy); and,
  - \( X = \) level of output.

45
At a particular point in time, the only variables in the model about which the firm can makes choices are output level (X) and organisation form (O).

The benefits of the hierarchy 'always come at a cost; not only are incentives degraded upon transferring a transaction from market to hierarchy, but added bureaucratic costs also obtain' (Williamson 1996, p. 142). Consequently, when incentives degrade and bureaucratic costs escalate, conditions can exist which make markets preferable to hierarchies in minimising transaction costs. This usually occurs when performance ambiguity is low (Ouchi 1980) and asset specificity (ie. the degree of specialisation, rarity or uniqueness of an asset) is low. Markets can possess advantages over hierarchies by enjoying economies of scale and of scope, and by aggregating uncorrelated demands (Williamson 1981).

Modelled on the work of McGuiness (1991), Lonsdale and Cox (1998, p. 47) stress the main factors important in outsourcing, from a TCE perspective, are:

- transactions differ upon the decision-making abilities of managers (bounded rationality), and in the scope they give suppliers to act opportunistically;
- as a result, the best organisational arrangement for a transaction is dependent on its nature; and,
- the nature of transactions are determined by the level of asset specificity; the degree to which they are characterised by uncertainty; and the frequency with which they are undertaken.

Using the organisation or hierarchy to produce a good or service is generally preferable when there are opportunities for pursuing self-interest (opportunism), where the distribution of information is uneven (bounded rationality and information asymmetry), and where assets specific to the production or provision of that good or service are required (Williamson 1985). Asset specificity is a key, multi-dimensional variable that consists of physical (eg. equipment) asset specificity, human (staff) asset specificity and site (locational) asset specificity. Where asset specificity is significant, uncertainty about the future of the relationship, the complexity of the transaction and the frequency of trade will also be likely to give rise to a more integrated governance structure (Shelanski & Klein 1995).
TCE is thus founded upon the conjunction of two main groups of factors: human factors and transactional factors. TCE does not conform to the classical microeconomic theory assumption that decision makers are fully informed and totally rational, opting instead to see their decision making as boundedly rational.

The following summary, specifically developed for this research, shows that TCE predicts the use of markets (outsourcing) likely when production and transaction costs can be minimised as a result of the following human factors (HF) and transactional factors (TF):

- goal incongruence is high (HF);
- opportunities for opportunistic behaviour are low (HF);
- asset specificity is low (TF);
- services are standardised and uncomplicated and transactions are of a non-recurring nature (sometimes termed 'frequency'), thus performance ambiguity and complexity are low (TF);
- environmental uncertainty is low (TF); and,
- the market is competitive (TF also termed 'large numbers').

Therefore the propositions and associated testable hypotheses derived from TCE are:

Proposition 4A: *The outsourcing decisions of Australian public sector organisations are influenced by human factors of opportunism and goal congruence, and*

Proposition 4B: *The outsourcing decisions of Australian public sector organisations are influenced by transactional factors of asset specificity, performance ambiguity and complexity, uncertainty, and the competitiveness of markets, supported by:*

Hypothesis 4B.1 *Australian public sector organisations prefer to outsource when asset specificity is low.*

Hypothesis 4B.2 *Australian public sector organisations prefer to outsource when performance ambiguity and complexity are low.*

Hypothesis 4B.3 *Australian public sector organisations prefer to outsource when uncertainty is low.*

Hypothesis 4B.4 *Australian public sector organisations prefer to outsource when markets are competitive.*

The interplay of these factors, together with other variables, is modelled in Figure 2.8, which appears in section 2.10.2 of this Chapter.
As the agency theory literature demonstrates, information asymmetries and lack of property rights reduce incentives to minimise costs in public sector bureaucracies. Thus TCE could provide a tentative explanation for the growth in outsourcing by the public sector, as a means to reduce costs. However, Forster (1993) holds that it is not possible to transfer TCE, and its raison d'être to public service organisations. For example, supply of numerous public services is to meet redistributational, societal, and equity objectives, rather than a cost savings objective. Similarly, public sector organisations are not the same as the profit-seeking firms upon which the theory is based. The focus on programs, outputs and outcomes in public management, the meeting of Community Service Obligations (CSOs) and the provision of services for public consumption, rather than the production of goods for private consumption, might therefore defy the basis of TCE. It is also possible in outsourcing situations, that public sector organisations ‘find themselves at a disadvantage through the imbalance of information [information asymmetry] between themselves and contractors and consultants’ (CTC Research Team 1995b, p. 12).

TCE and accounting are closely linked. For example, efficiency in a TCE sense, ‘will depend on the manner in which the firm subdivides its economic activities, forms the employment relation and structures its management accounting and control system’ (Spicer & Ballew 1983, p. 82). TCE has potential to enrich understanding by providing a conceptual overview of the management accounting process (Baiman 1990).

Again there are limitations to the theory. TCE assumes that cost-efficiency is the only goal (McGuiness 1991), which ignores some strategic and other reasons for choice of organisational form. For example, the core/non-core functional distinction, discussed in section 2.2.4, is not directly addressed in the theory. TCE also ignores the impact of other variables, such as labour market conditions and political and legislative interventions (O'Connell-Davidson 1993); the latter being of considerable importance in the context of the public sector. The theory has also been criticised for being shallow and incomplete, assuming opportunism rather than simple knowledge differentials, and therefore of offering only a partial explanation of the existence of organisations (Perrow 1986; Robins 1987; Donaldson 1995a; Conner & Prahalad 1996; Ghoshal & Moran 1996; Madhok 1996; Moran & Ghoshal 1996).
There have been few applications of TCE, or of specific TCE variables such as opportunism, to the study of public sector outsourcing (see, for exceptions, Ferris & Graddy 1991; Anderson & Drennan 1993; Kavanagh & Parker 2000; Lane 2001). The recent increase in and push for outsourcing by the public sector provides the opportunity to further the development of TCE applications in examining markets as a response to instances of hierarchical or government bureaucracy failure. Although there is the concern that outsourcing may perhaps go beyond TCE and the traditional view of the firm, since outsourcing allows organisations to make deliberate decisions about the boundaries of the firm (Morkel 1993). Therefore, if there are reasons other than transaction cost-economising which drive some public sector outsourcing decisions, as the literature reviewed in section 2.9 suggests there might be, then TCE may fail to explain the behaviour of public sector organisations increasingly turning to the market (Forster 1993).

Some of the other reasons why public sector organisations outsource, and why costs are afforded a particular level of significance or insignificance in outsourcing decisions may relate to the external environment or to other structural and contextual variables within these organisations. Finlay and King (1999, p. 109) note that:

transaction cost analysis ... in itself is not enough ... this form of analysis needs to be augmented with considerations of these special features and of the organizational and environmental factors surrounding the sourcing decision.

Contingency theory, another theory of organisations and organisational structure, may assist in explaining these other factors.

2.4.3 Contingency theory

Contingency theory seeks to explicate the interrelationships within and among subsystems in an organisation, as well as those between the organisation and its environment, and to define patterns of relationships or configurations of variables (Kast & Rosenzweig 1973). While contingency theory assumes there is no universally acceptable or optimal design for organisations, it shares with TCE a basis in the bounded rational decision model.\(^6\) According to contingency theory, the structure of an organisation is seen as being contingent upon many factors specific to the organisation.

\(^6\) The primary concern of the organizational decision-making perspective is for the treatment of the problematic "bounded rational" person which, in turn, is the core legacy passed onto contingency theory as it seeks to provide insight as to this boundedly rational decision maker in relation to the various contextual contingent factors" (Covaleski, Dirsmith & Samuel 1996, p.5)
These contingencies or situational factors generally include uncertainty, size, technology, strategy, and the environment (Donaldson 1995b).

‘Structural contingency theory posits that organizational performance is affected by the fit or misfit between the structure and the contingency’ (Donaldson 1995a, pp. 32-33). Thus, the structural-adaptation-to-regain-fit (SARFIT) model was developed, based on the premise that an organisation, initially in fit, increasingly realises misfit as some contingency variable or variables increase. Eventually, organisational structure must be altered in order to regain fit (Donaldson 1987). Privatisation, commercialisation and outsourcing in the public sector can be seen in this light.

Accounting researchers propose that since accounting systems are part of organisations, accounting systems are also contingent upon the structure of the organisation and the variables affecting that structure. Hopwood (1972) introduced the basic concept of examining the way organisation managers use accounting information as a means for investigating the usefulness of management accounting, while Khandwalla (1972) recognised the need to study organisational contextual factors and their impact on Management Accounting Systems (MAS) and Management Control Systems (MCS).

Contingency theory is not without its weaknesses. Some variables are difficult to specify and measure, and some, such as organisation size, might merely be proxies for other underlying and perhaps unknown variables (Kimberly 1976). The theory may also encounter difficulties in explaining the interactive nature of multiple contingencies (Hopwood 1983). Many accounting studies applying contingency theory have also lacked statistical power because of relatively small sample sizes in comparison to the number of factors analysed (Reeve 1993).

Nevertheless, contingency theory has been applied in accounting research settings for almost 30 years with a view to developing a descriptive theory of management accounting systems (Bruns & Waterhouse 1975; Gordon & Miller 1976; Otley 1980; Simons 1987; Moores & Yuen 2001). Contingency theory has also been applied in studying management and management accounting practices in UK and Australian local governments (Greenwood et al. 1980; Gurd 1993) and outsourcing practices within the USA health system (Young, Parker & Charns 2001).
In the public sector, the success of particular reforms, especially related to outsourcing, are affected by various situational factors and contingencies (Allen et al. 1989; Hatry 1989). In discussing commercialisation in the public sector, Kelaher (1991b, p. 44) maintains that:

recognising the size and performance of public sector organisations, and the nuances of their operating environment is the key to understanding the public sector.

Kelaher's statement suggests that both organisation size and the operating environments of public sector organisations may assist in explaining the significance of costing information used in outsourcing decisions. Prior contingency research in private sector organisations has demonstrated that the importance of costs and costing information is contingent upon organisation size, such that larger organisations make increased use of more sophisticated MAS (Merchant 1984; Jones 1985; Simons 1987; see for review, Moores & Booth 1994). This conclusion is also supported by a separate body of literature concerning small business (see, for example, Holmes 1986; Holmes & Nicholls 1988, 1989), and by TCE analysis of private sector human resources outsourcing (Klaas, McClendon & Gainey 1999).

However, in US local government settings, survey research (n = 1433) by Ferris and Graddy (1988) found that the smallest and largest organisations are more likely to contract out for services because they have more potential to realise cost savings. For the smallest organisations, this is because suppliers have scale economies, and in the case of the largest organisations the number of external suppliers creates competitive pricing pressures and efficiencies, implying a U-shaped relationship between outsourcing/cost savings and organisation size. Although recent Australian evidence (ANAO 2000)\(^7\) illustrates that in public sector organisations, relative levels of costs, particularly transaction costs, are inversely related to organisation size. The general conclusions then, based on existing research evidence are that:

**Proposition 5A:** The role of costs and costing information for outsourcing decisions in Australian public sector organisations is influenced by organisation size, and the associated testable hypothesis:

**Hypothesis 5A.1:** Costs and costing information increase in importance in the outsourcing decision-making of Australian public sector organisations as organisation size increases.

\(^7\) For further information refer to Table 2.3 in section 2.7.4.
Contingency theory also suggests that in the public sector setting, parent organisations have powerful roles in shaping the organisation. These parent organisations can include governing boards and parliament. Such structure distinguishes public sector organisations from their private sector counterparts. Thus a key variable for contingency theory as applied to public sector organisations is the public accountability contingency (Donaldson 1995a). As Barrett (1997, p. 31) submits:

public sector agencies have to satisfy a complex range of political, economic and social objectives and operate according to a very different set of external constraints and influences. They are subject to expectations and accountability from their various stakeholders, who are more diverse and more contradictory in their demands than those of a private corporation.

Not only are clients and customers organisational stakeholders, but the public sector organisation is also subject to the demands of other external constituents such as political pressure groups, volunteer oversight agencies, and the executive, judicial, and legislative branches of government (Wright, Kroll and Parnell 1996, p. 291).

The public accountability contingency has potential to provide substantial insight into the role of costs and costing information in the outsourcing decisions of public sector organisations. However, as a contingent variable it is somewhat nebulous and poses problems in terms of specification, operationalisation and measurement. It is essentially a structural variable produced by the distinctive policy and accountability relationships between organisations and their respective stakeholders. Thus several variables, reflective of organisation structure and the relationships between public sector organisations and the elected representatives of governments, and therefore the broader interests and community they represent, can be used to approximate the public accountability contingency.

In prior contingency research Merchant (1981, 1984) investigated aspects of budgeting in relation to the structural organisational characteristics of decentralisation and departmental function. Moores and Booth (1994, pp. 21-22) conclude that:

it appears from existing MAS studies that organisations with high levels of decentralisation or mechanistic structural arrangements employ more formal and comprehensive MAS.

While many government departments and agencies are comprised of heavy administrative layers and a bureaucratic structure, this alone does little to differentiate among various forms. However, there are three basic organisation types in the public
sector; local government organisations, self-funded organisations, and budget-funded organisations (as defined in section 1.8); and three basic levels of government: local, State and Federal. Each of these types possess distinctive features which assist in accounting for differences in the objectives, operations, activities, funding arrangements, culture and design of the organisations and of the way in which the significance and use of costs might be expected to differ among them.

As Funnell and Cooper (1998, p. 3) maintain 'in the late twentieth century, defining the public sector is a hazardous task', which seems to be made more so by the existence of Government Business Enterprises (GBEs) and other non-budget-financed agencies. Critics have pointed out that public sector reforms fail to recognise the particular characteristics and idiosyncrasies of different departments or levels of government (Sinclair 1988; Passfield 1989). Other commentators (Churchill 1995) also point to the polarisation of public sector organisations into those pursuing commercial objectives, such as GBEs and Government Trading Enterprises (GTEs), and those charged with meeting Community Service Obligations, such as traditional, budget-funded agencies.

Organisation type and level of government reflect organisation design characteristics and the influences of legislative, policy-related, historical, strategic and environmental factors that potentially affect costing for outsourcing decisions. For example, most local government organisations are headed by a mayor, controlled by elected councillors, and managed by a staff divided along functional lines. Generally local government organisations are located at a single site. These organisations are primarily ratepayer funded. Local government organisations also have a longer history of outsourcing experience than other types of public sector organisations (Berenyi & Stevens 1988; SOLACE & LGTB 1988; Rimmer 1998) and a greater propensity to outsource (Industry Commission 1996). Further, accrual accounting has been operational in Australian local government organisations since the early 1990s, while it only came into effect in many states and at Commonwealth level in the 1999-2000 financial year. It might be expected then that local government organisations have better systems in place for evaluating the costs of outsourcing, compared to other types or levels of public sector organisations. Such observations lead to the notion that:
Hypothesis 5B.1: Costs and costing information are more important in the outsourcing decision-making of Australian local government organisations than in Australian budget-funded and self-funded public sector organisations, or State and Federal level public sector organisations.

In Victoria, competitive tendering is compulsory for local government organisations, and thus there are potentially variations in outsourcing practices and in the use of costs in making outsourcing decisions, across Australian States and Territories, as well as across organisation types and levels of government.

By way of contrast to local governments, self-funded organisations, are usually headed by a chairperson, controlled by an appointed (not elected) board of directors or trustees, and managed by a General Manager (GM) or Chief Executive Officer (CEO). Self-funded organisations do not rely on Treasury to finance their operations, and are generally profit-oriented, competing against private sector firms for business. Additionally, many self-funded organisations, such as state-owned utilities, are excluded by one means or another, from National Competition Policy (Pascoe 1994) and so there may be less external political pressure on these organisations to outsource. Self-funded organisations might also outsource for reasons other than cost reduction because of their commercial and strategic orientation. Consequently, the role and significance of costs in outsourcing decision-making in these organisations may not be as important as it is in local governments, or in the budget-constrained environments of organisations which rely on funding distributions from Treasury (budget-funded organisations).

Budget-funded organisations are also distinguished from local government and self-funded organisations in that they generally have thicker central administrative structures consisting of many layers of responsibility and accountability. Such agencies usually have many branches and offices throughout various States and Territories. The public higher education system and social welfare system are illustrative of such agencies.

In addition to these organisation type, government level, and State/Territory distinctions, the operations, especially the outsourcing arrangements, of metropolitan versus rural and regional organisations are likely to differ, as may the potential for gaining cost savings through outsourcing. Lack of contestability, competition and scale economies, and threats to local employment are all relevant concerns in outsourcing by
non-metropolitan, Australian public sector organisations (Ernst 1994; Hodge 1996), regardless of organisation type or level of government (see also, section 1.3.3).

Following this reasoning, and the prior contingency research that demonstrates 'generalizations can be made for classes of business settings' (Fisher 1995, pp.24-53), and organisational form and MAS development have contingent relationships (see, Reid & Smith 2000), it is argued that:

**Proposition 5B:** The role of costs and costing information for outsourcing decisions in Australian public sector organisations is influenced by organisation type, level of government, and organisation location.

*Figure 2.5* illustrates how organisation design (organisation type, level of government and location) is related to contingent variables and MAS, and ultimately organisational effectiveness, and has been adapted to suit the context of the research:

*Figure 2.5 Linear framework for MAS design*

<table>
<thead>
<tr>
<th>Contingent variables (eg. strategy, environment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eg. PSO is profit/non-profit oriented;</td>
</tr>
<tr>
<td>PSO competes/does not compete with private sector</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Organisational type/design (eg. shape, centralisation, interdependencies)</td>
</tr>
<tr>
<td>Eg. PSO is centralised (ie. local government)/decentralised (ie. Federal government);</td>
</tr>
<tr>
<td>PSO relies on public funding/PSO is self-funded</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Type of MAS (eg. technical &amp; behavioural characteristics)</td>
</tr>
<tr>
<td>Eg. PSO has sophisticated/unsophisticated costing system</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Organisational effectiveness</td>
</tr>
<tr>
<td>Eg. PSO achieves/does not achieve cost savings through outsourcing</td>
</tr>
</tbody>
</table>

*Adapted from:* Otley (1980)

**KEY:** PSO = public sector organisation

The preceding discussion of structural variables and the propositions developed from it, together with the illustration presented in *Figure 2.5* above, suggest how contingency theory can provide an elaborated view of the role and significance of costs in public sector outsourcing decisions.
It is not, however, the purpose of the thesis research to conduct a complete contingency theory interaction or systems study. Rather than the research being a test of contingency theory, it is an application of it. Contingency theory, and the two propositions derived from it are instead used as a ‘rich source of ideas’ (Chapman 1997, p. 189) with the potential to explain possible divergences from agency and TCE models.

The pursuit of a cost savings objective through outsourcing, the rational (within bounds) use of cost information in assessing the attractiveness of outsourcing, and the role of that information relative to organisation size and structure are justified according to a combination of decision theory, economic theory (agency theory and TCE) and management theory (contingency theory). These theoretical perspectives thus form the foundation for the study. A multi-theoretical perspective is adopted in order to tap the strengths of each school of thought, while ensuring that the theories have minimal overlapping weaknesses. This approach also provides wider scope for recognising the multiplicity and complexity of variables involved in outsourcing decision making, and accords with Lever’s (1997) finding that multiple organisation theories applied in combination provide greater explanatory value of outsourcing practices.

These theories, derived from the parent disciplines concerning the primary research question, provide the necessary backdrop to considering the immediate discipline area of the research question.

2.5 Accounting information & decision-making

The choice of whether to outsource for the provision of a good or service or to continue to provide it utilising in-house resources is a specific example of a decision situation in which accounting information is useful.

Henderson and Peirson (1992, p. 27) suggest that the domain of accounting encompasses the:

- measurement of transactions;
- preparation and transmission of a message; and,
- interpretation and use made of the message.

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¹ For a discussion on this point, within the context of case study research in management accounting, see Hoque & Hopper (1994).
The role of accounting information in the outsourcing decision making process relates to all three aspects of the accounting domain. Whether an operation is retained in-house or outsourced, transactions and exchanges will take place and will require measurement. Accountants will report on the transactions associated with the operation, again regardless of whether it is conducted in-house or outsourced, and presumably, decision makers will use accounting information for making the outsourcing decision, and in implementing, reviewing and monitoring that decision.

Since accounting is a human artefact or construction, and decision making is inextricably bound to facets of human cognition, Henderson and Peirson (1992, p. 27) conclude that ‘the study of accounting is, therefore, the study of some specific examples of human behaviour’. The particular human behaviours of interest in considering outsourcing decision making are those of accountants and managers.

The IE-DM framework suggests that the accountant can be viewed as an information evaluator (IE) who chooses among alternative information systems and whose signals will be used by a decision maker (DM) in selecting actions (Uecker, Schepanski & Shin 1985). The information developed and selected by accountants in outsourcing decision scenarios could profoundly affect the actions of individuals responsible for implementing and monitoring an organisation’s outsourcing activity, as well as those of managers who actually make the decision.

Management accountants in organisations are also starting to form part of the actual decision-making team, rather than operating in the background as support personnel (Bromwich & Bhimani 1989; Johnson 2000). Accounting industry forecasters contend that management accounting systems will play an increasing role in providing information for outsourcing decisions, and management accountants will also face increased demand for their skills to be utilised in outsourcing decision making as part of the management team (see, Booth 1995a; Walsh 1997a, 1997b; ICAA 1998a, 1998b).

As with all accounting, management accounting and management accountants need to tackle the task of how best to allocate scarce resources among competing uses. Given that resources are scarce, in order to make a decision about whether to retain an operation in-house or to outsource for it, the costs of both alternatives should be considered. As cost economising is the stated primary objective, accounting, and cost
accounting particularly, need to play an important role in outsourcing decision-making. Shank (1989) and Shank and Govindarajan (1989) demonstrate, using private sector organisations, that a cost leadership strategy requires emphasis on traditional cost accounting techniques. While many public sector organisations might not be engaged in competition in the manner or to the extent of private sector organisations, the cost savings objective is somewhat analogous to the private sector cost leadership strategy. Consequently, it would be expected that there would be an equivalent need for and emphasis on cost accounting.

Costing information is needed not merely to inform outsourcing decision making, but also to enable management to protect itself against criticism of policies and actions, and to inform stakeholders, such as regulatory authorities, consumers, and the public. Some information will also be necessary to satisfy legal requirements such as those under CCT legislation. In discussing public sector outsourcing, the NSW Auditor-General maintained that:

"Governments ... always have had to defend: the appropriateness of their policy objectives, the effectiveness of the mechanisms used to meet those objectives; the efficiency in their use of resources, and the economy with which they acquire those resources. They are also accountable for their compliance with the law and for the probity or ethics of their actions (Harris 1998, p. 1)"

Users of government accounting information both establish and change policy through exercise of their electoral rights, in providing public finance via taxes, and as consumers of public services (Chan 1981; McGregor 1999). Consequently, the basis on which outsourcing and other resource allocation and service provision decisions are made needs to be defensible. Being capable of showing the public evidence of efficiency, cost economy and ethical behaviour in outsourcing becomes paramount, and in large part, costing information needs to be used in order to defend a position and satisfy public demands. Barrett (1997, p. 58) confirms this view, stating that this form of transparency and assurance is referred to, in reform terminology, as ‘accountability for results’ and ‘its assessment is mainly by cost effectiveness measures’.

2.6 Costing information & outsourcing decisions

There are several issues of relevance in costing for outsourcing decisions in the public sector. These issues are:

- that costing of in-house services or comparison of in-house and outsource costs may not be made by some organisations;
that some public sector organisations may have poor costing systems;
that published guidance on costing for outsourcing decisions for public sector
organisations is often inaccurate or misleading; and consequently,
that many public sector organisations may use inappropriate methods in costing for
outsourcing decisions.

A brief discussion of the first point follows, while the remaining issues are covered in
depth in subsequent sections of this chapter. A USA study of 120 local government
areas involved in outsourcing through competitive tendering found that over 50% of
these had no costing or other methodology for comparing in-house and contractor bids
(Martin (n.d) cited in Sciuilli (1996)). It would not therefore be surprising to find that a
number of Australian public sector organisations also do not cost in-house services nor
compare the costs of those services with the outsourcing option.

2.6.1 Public sector accounting systems
Ideally, financial accounting and reporting systems in the public sector function to
provide external decision-makers with information enabling them to judge an
organisation’s economy, accountability and transparency (Miley 1999; Miley & Read
2000) including that related to outsourcing transactions. Cost and management
accounting systems fulfil the more special-purpose role of providing management with
information for decision-making, including outsourcing decisions (ANAO 1998). Thus,
all aspects of accounting systems in public sector organisations are important in the
outsourcing context.

The financial accounting and reporting practices of governments in Australia were
considered to be poor prior to the introduction of public sector accounting standards
(Micallef 1994; Hoban 1995). Walker, (then Chairman of the NSW COCOG) described
NSW public service accounting systems as ‘chaotic’ and ‘criticised the widespread use
of incompatible accounting and information systems across the NSW public sector and
the inadequate, incomplete and unreliable accounts of many agencies’ (Davis 1997, p.
8). However, the relatively recent shift to accrual accounting and consolidated ‘whole-
of-government’ financial reporting was intended to function to improve the general
accounting systems of Australian public sector organisations (Cooper 1999; Miley
1999; Miley & Read 2000).
2.6.2 Public sector cost & management accounting systems
An optimal costing system is one which balances the discovery costs of determining the costs of products or services, and error costs which are the costs of making decisions based on inaccurate costing information (Cooper & Kaplan 1988). Poor general accounting systems and a lack of appropriate cost accounting and cost management systems can produce high error costs.

There are situations where organisations may have high error costs because they also face high discovery costs. High discovery costs may produce information asymmetry where the agent to a contract has better knowledge (including knowledge of costs) than the principal (i.e. the public sector organisation) (Arrow 1969). Thus, a situation of information impactedness can develop which makes it costly for a party with less information to achieve information parity (Williamson 1973).

In discussing the private sector, Cooper (1987) maintains that a potential signal of cost system failure is when suppliers offer to produce parts at prices significantly lower than expected and lower than the in-house production cost. Rather than indicating superior efficiency on the part of external producers, this may be indicative of poor in-house product costing systems that systematically over-cost, or inaccurately cost in-house production. Thus some of the apparent cost advantages of outsourcing might be simply due to poor in-house costing systems, rather than superior performance of contractors.

In the past, cost and management accounting systems in the Australian public sector, whether for outsourcing decision making or other purposes, have been revealed to be quite deficient (Gurd 1993; Hazell 1997). In part, the deficiencies of these systems were a reflection of the nature of conventional public bureaucracies, including use of cash-based and fund accounting in government, causing problems with the ‘acceptance of the accrual culture’ (Funnell & Cooper 1998, p. 208), and the traditionally non-competitive environment in which public bureaucracies have operated.

On the latter point, in discussing Victorian local government prior to the introduction of CCT, Spence (1996, p. 272) argued:

the lack of competition and its pressure for efficiency meant that we never identified the unit cost of delivering a service. Reporting systems were not set up to provide this sort of information ... we have no systems for
allocating overhead costs back to direct services. Management accounting
was almost non-existent in local government in Victoria.

The need to develop improved cost and management accounting systems for Australian
public sector organisations, particularly to enable these organisations to assess the cost
implications of outsourcing decisions, has been recognised by a broad range of
government and industry bodies. To address real or perceived costing deficiencies,
State and Federal governments and industry bodies have promulgated a large number of
guidelines on costing for outsourcing decisions.

2.7 Costs, costing methods & cost savings

The primacy of the cost reduction objective in public sector outsourcing decision
making has been evidenced by the findings of a number of research studies in Australia
and overseas and is also well documented in a range of Australian government policy
(see, for example, Fahey 1996; Barrett 1997; SCPAC 1997). Some Australian policies
and reports do however refer to a 'value for money' criterion (see, for example, NSW
Premier's Department 1995; Industry Commission 1996; CJPF & RPRC 1997) which
does not necessarily mean acceptance of the lowest tender or the 'lowest cost' provision
(CTC Research Team 1995b, p. 7), but it is assumed some savings will nonetheless
result. Government policy and legislation, as well as the rhetoric concerning the
privatisation, restructuring and outsourcing debate remains firmly founded on the cost
savings and cost-efficiency issue (Forster 1993).

What is of concern then, is what costs are used in outsourcing decision-making, how are
they computed, and are there 'real' cost savings to be had through outsourcing? A
number of issues are relevant within this framework, including:

• the debate over whether to use full costs or avoidable costs;
• whether to focus on short-term costs or long-term costs;
• which costing methods are most appropriate for use;
• problems associated with obtaining relevant and reliable information from public
  sector accounting systems;
• the need to account for transaction costs in evaluating external bids;
• recommendations on costing methods for outsourcing decision-making; and,
• the evidence on the achievement of cost savings.
2.7.1 Full costs & avoidable costs

The conventional wisdom in Australian public sector organisations is to use full cost (or a hybrid derived therefrom) for preparing an estimate of in-house costs of service provision. For any cost object, full cost is normally ‘the sum of its direct costs and a fair share of indirect costs [where] “fair share” is measured by the allocation basis that ... reflects the causal relationship between indirect costs and the cost object’ (Anthony 1989, p. 5). The full cost of in-house provision is then compared with the bids of external suppliers to determine which option is least costly.

Victorian CCT legislation requires use of full costs for in-house bids in order to make them ‘comparable’ with external bids. Similarly the MAB (1992, p. 26) suggested the use of full cost for Australian Commonwealth agencies for comparability purposes stating that:

To determine the most cost effective way of delivering a program, there is a need for good knowledge of the in house costs of a service. The resource costs of a service need to be isolated so that valid cost comparisons can be made. This will require overheads, such as accommodation and management, to be allocated across individual services.

How such approaches are supposed to promote cost effectiveness or cost efficiency is not clear. If certain management, accommodation and other allocated overhead costs will not be saved by outsourcing then external service provision may not be the most cost effective option. Unavoidable costs, being those costs that will not be saved if the organisation outsources, will be common to both in-house and external provision, and should be ignored in evaluating the costs of both alternatives. The guidance wrongly seems to suggest that these costs should be added to the costs of in-house provision and ignored in estimating the costs of outsourcing in order to make a ‘valid’ comparison.

There are however, some other alternative, non-cost related rationalisations that might underlie requirements to use full costs. One justification for using the full cost basis to determine in-house cost is to put the public sector provider on the ‘same footing’ as the external bidder, since the bidder can be presumed to have used full cost in determining their bid price. However, this may not always be the case as external bidders may follow a loss leadership strategy and underprice their services in order to secure first-time contracts. For example, recent audit evidence on Australian public sector Information Technology (IT) outsourcing contracts (ANAO 2000) showed that ‘tenders overstate the savings on offer for agencies’ (Murphy 2000, p. 3). External providers
might also have overhead and infrastructure already in place, and use a marginal costing strategy to secure business. Thus there is a question of whether cost savings are short-term or long-term.

Further, the 'same footing' rationale seems to be directed at promoting the appearance of competition between public and private sectors, rather than saving costs. It has also been suggested that in using other than full costs for estimating in-house cost, a public sector organisation would run the risk of accusations of 'unfair bias towards the authority's own workforce and failing to secure the best attainable value for money' (Meadows & Hill 1984, p. 17).

The alternative view is that the outsourcing decision is essentially the same as a private sector 'make or buy' decision (Horngren, Foster & Datar 2000, p. 384). Surprisingly though, examination of financial analysis guidelines for public sector outsourcing decisions yields few which explicitly suggest a make or buy costing approach (for exceptions, see Seader 1986; SOLACE & LGTB 1988), although textbooks on public sector accounting invariably do so (see, for examples Funnell & Cooper 1998; Granof 1998; Anthony & Young 1999). The make or buy decision is generally made on a relevant costs basis, where the in-house cost and external bid price are compared by computing incremental and opportunity costs. In other words, only costs (and revenues) which differ between alternatives are considered. The 'buy' alternative becomes attractive when the in-house avoidable costs exceed the bid price. By contrast, if using full costs, the in-house cost can be inflated by the inclusion of non-avoidable costs.

Hoban (1995) suggests that indirect costs for government can be divided into two categories; those related to service delivery and those related to governance. It is possible that some indirect service delivery costs, as well as most governance costs may be unavoidable in many outsourcing decision scenarios. As such, these costs will not be saved if the organisation outsources. Full costing thus has the potential to create false economies in favour of outsourcing.

In adopting full cost for use in making outsourcing decisions, the more general problem of cost allocation also arises. 'The problem of devising an efficient overhead allocation is essentially one of trying to predict an ex post 'optimal' full cost ... from an ex ante position when subject to imperfect information' (Dorward 1986, p. 309). Both the
amount of indirect cost to allocate, and the allocation base itself are problematic. The allocation of sunk costs is a major case in point.

A basic tenet of accounting is that sunk costs represent the costs of resources already committed and which are therefore unavoidable and not relevant in deciding between alternatives (Atkinson et al. 1997). Despite this, much of the guidance for costing the in-house provision of a public sector service explicitly suggests the inclusion of sunk costs, such as depreciation charges on pre-existing assets (see, for examples, Marlin ed. 1984; Meadows & Hill 1984; Department of Finance 1991a, 1991b). Even in the private sector it appears that in-house provision of goods and services is overcosted, largely as a result of arbitrary cost allocations, as well as inclusion of non-value added activities (Chalos 1995). The situation is worse for budget-funded agencies, where assets are valued at current and replacement costs, instead of historic costs, producing:

> flow-on effects of these heightened asset valuations, particularly inflated depreciation charges and the effect of capital charges, now becoming endemic in the Australian public sector. These factors may mean the cost structures of public-sector agencies may appear unfavourable compared with private-sector structures, and there may be consequences for outsourcing decisions. Because of the information distortions … some decisions could be uninformed, ultimately greatly placing a greater strain on the public purse than envisaged (Carlin 2000, pp. 63-72).

### 2.7.2 Short-term & long-term costs

Traditional bases for allocating indirect overhead costs have been heavily criticised because they produce meaningless product costs and focus on the variability of costs in the short-term rather than the longer-term (see Johnson & Kaplan 1987). To overcome these criticisms activity-based costing (ABC) has been adopted by many corporations, and is gradually flowing into the public sector. By assigning costs firstly to activities, and then to products, better (full) product costs are thought to result. ABC systems have been trialed by several councils, in part to provide better information for outsourcing decisions (Cocker 1998). There is some evidence to suggest that the use of activity-based unit costs results in optimal pricing decisions (Banker & Hughes 1994), and that activity-based analysis is useful in outsourcing decisions (Arnett 1994), particularly those which relate to the restructuring of organisational operations (Kee 1998).

Since all costs are avoidable in the long-term, ABC combined with a net avoidable costs approach has been recommended for use in some Australian public sector CCT situations (Hoban 1992; VAMA 1993). This hybrid system costs in-house service
provision based on net avoidable costs assessed over the long-term, using ABC to account for indirect costs. *Figure 2.6* provides one interpretation of the behaviour of costs, particularly avoidable costs, over the short and long term.

*Figure 2.6  Behaviour of costs in an outsourcing context*

Adapted from: Kella & Tellis (1995) p. 4

The logic behind this approach to costing for outsourcing decision making is that as more and more services are outsourced, general overhead costs decline in line with the overall reduction in organisation-wide activity. There will nevertheless be some governance or other costs, which are not avoidable in the long-term.

However, proponents of this argument fail to recognise that baseline governance costs can actually increase as the amount of outsourcing increases (ACLAEW 1987; Botsman 1995). This increase is a result of escalating contract administration and monitoring costs which occur because of disruption and structural change to the organisation, training to acquire new skills (such as contract administration skills), improvements to information systems to enable proper accounting and monitoring of contracts, and increased administrative burdens associated with development of contract procedures and specification of contracts (Grayson, Hobson & Walsh 1990; Vining and Weimer 1990; Dunsire, Hartley & Parker 1991).

There are also possible size, industry, and temporal effects. Smaller organisations will face higher per capita costs in establishing contracting procedures (Hodge 1996) and those in particular areas or industries, such as rural local government, or small GTEs may feel this cost burden relatively more so than large, budget-funded agencies. Additionally, there is the possibility that cost savings are only short-term savings. Over
time contractors may institute price hikes, knowing that the organisation is dependent on them and no longer has the resources or staff to provide the service in-house. This situation can be aggravated when there is high asset specificity and assets are expensive to reacquire.

The following diagram (Figure 2.7), specifically developed for the purposes of the research described in this thesis, displays how the baseline of organisational governance costs can increase and the effect on total costs, following outsourcing.

**Figure 2.7 Behaviour of baseline costs in an outsourcing context**

Recently, the Australian National Audit Office's (ANAO 2000) investigation of public sector IT outsourcing brought to light the effects of rising and unaccounted for transaction costs and how these costs, in several instances, mitigated agencies' claims of cost savings and resulted in increased baseline costs.

Apart from this ANAO (2000) study, there is little available research evidence on increases in baseline governance costs following outsourcing. In part, this is probably due to the inability of organisations to track and account for contract administration, monitoring and other transaction costs, as discussed in detail in section 2.7.4. There is, however, some supporting case study evidence from the USA to suggest that general corporate overhead cost pools do increase following outsourcing, although perhaps not significantly (Petrillo 1998)\(^9\).

\(^9\) However, given the relatively small sample of case organisations \((n = 8)\) considered in this research, it would be incautious to draw generalisations from this finding.
A problem with full costs, avoidable costs, and hybrid methods is that the decision to cease in-house provision of all or part of a service will often result in a loss of expertise and infrastructure through divestment of both human and physical resources. While contracting may appear to be the most favourable, least costly option initially, once the capacity to provide a service has been foregone the organisation may be at the mercy of the contractor, with little ability to resume in-house provision at some later date.

Botsman and Reilly (1990, p. 57) suggest that outsourcing can be defined as 'the acceptance of private contracts to undertake functions on behalf of the public sector ... a traditional practice for the public sector now being used more commonly and indiscriminately to cut short-term costs'. While this statement expresses a negative view of the role of outsourcing in the public sector, it points to the problem of management myopia and short-termism in outsourcing decision-making. A problem with some costing methods, and with management's desire to achieve cost reductions is that they may focus on the short-term rather than the long-term. Christensen and Pallensen (2001, p.179) support such a view, suggesting that 'short term costs and benefits are decisive for those who enact and implement public sector reform'.

As a response to these costing problems, the use of cash flows and capital budgeting techniques are sometimes suggested for evaluating both the in-house position and the external bid (see, for example, Burke 1984; Werry 1991; Scuilli 1996; Bisman 1999).

### 2.7.3 Cash costs of outsourcing

If the outsourcing decision is viewed as an investment decision, and where the contract extends for a period of time longer than one year, a cash-based financial analysis technique, such as Net Present Value (NPV), can represent the most appropriate means to account for the time value of money and the long term (un)favourability of outsourcing. Such an approach has been recommended by the ANAO (2000). Cash-based methods also overcome some of the allocation problems associated with other methods, such as depreciation, which is ignored since it is a non-cash item.

NPV and Discounted Cash Flow (DCF) methods are however, problematic in practice. Johnstone (1999) assessed a variety of UK and Australian, public sector guidance publications on applying DCF techniques to outsourcing decisions. He found that 'most of the published guidelines account for the cost of capital equipment and other capital
items in a way foreign to present-day textbooks on capital budgeting' (p. 34) by advocating a combined accrual DCF method. As a result of following such guidelines 'in-house providers are charged excessive capital costs, and to compound matters, capital costs are double-counted' (p. 37-38). Johnstone (1999, p. 40) concluded that the obscurity and technical difficulty of the accruals DCF methodology contained in the guidance publications was unlikely to be understood by public sector finance managers, and was unlikely to be applied in practice without mistakes.

As many public sector organisations write contracts to decrease their risk, transferring risk onto the contractor, the risk of contract failure increases (Industry Commission 1996). Some authors suggest that risk should be the prime determinant in outsourcing decisions (Quiggin 1996; Awty 2001). Certainly an appropriately applied DCF or NPV method has capacity to account for both costliness and riskiness in contracting.

While adoption of certain costing methods may fail in capturing the cost of in-house activity, they may also be insufficient for estimating, comparing, tracking and controlling the costs associated with external supply.

2.7.4 Accounting for transaction costs
Even though the contract price of external supply is relatively objective, there are many hidden and additional costs associated with choosing to outsource. These costs can include contractor cost overruns, and various transaction costs.

As the Industry Commission (1996) inquiry into Australian public sector outsourcing discovered, not only are there problems related to the methods used in practice to calculate costs, but also transition, contract management and monitoring costs are frequently omitted from analyses. Estimates of these costs need to be added to bid prices when making comparisons with the cost of in-house provision. When not adequately accounted for, and these costs often are not, they can effectively negate anticipated cost savings (ACLAEW 1987; Paddon 1991a), and have been found to be pervasive in local government outsourcing (see, Kavanagh & Parker 2000).

Costs can often increase substantially above an external supplier's accepted bid, due to contractor cost overruns. These cost overruns are a frequently cited risk of outsourcing
(see, Moore 1987; Botsman 1995; Reilly & Tamkin 1996), and generally result from poor contract specification and management.

Unlike contractor cost overruns, which will not always be incurred, transaction costs are always incurred on every contract. Transaction costs include the costs of searching for suppliers, and entering into, coordinating and monitoring contracts. The costs of searching for suppliers and entering contracts can be termed 'transition costs'.

Transition costs include severance/redundancy payouts, legal fees, service disruption costs, staff retraining costs, overtime for supervision during the transition period, and carrying costs of unused or underutilised resources (Marlin ed. 1984; OSOE 1994). Estimates of the size of transition costs seem to be lacking. One UK estimate puts them at around 2% of total annual contract cost (LGIU 1994), and another, also from the UK, at 10.7% (Walsh 1991). A further UK example, based on a study of local government outsourcing contracts (n = 448), yielded an estimated average cost saving of 6%, but this was effectively wiped-out when it was determined that in preparing for competitive tendering, costs increased by 6% (Manchester City Council 1990).

The second aspect of transaction costs is monitoring costs. Monitoring the performance of the contractor, in terms of legal compliance, adherence to contract specifications, and acceptability of quality, is one of the most difficult aspects of outsourcing (Rehfuss 1989, 1990). Monitoring costs can be incurred in respect of coordination, on-site inspection or observation of contractors' work, user panels, public surveys, analysis of complaints, contractor reports, and other performance auditing techniques (see, for examples, Marlin (ed.) 1984; Walsh 1991; Herbert 1994).

Evidence on the amount of monitoring costs is neither abundant nor conclusive. Rehfuss' (1989, 1990) reviews of USA public sector evidence on the size of monitoring costs from the 1970's and 1980's puts them anywhere in the vicinity of zero to 33% of total contract costs; with 5% to 10% a likely average. Estimates from a sample of other studies are provided in Table 2.3 below. In some of the studies an all-inclusive estimate of transaction costs is provided, combining monitoring costs with transition and other contract administration expenses.
<table>
<thead>
<tr>
<th>Year</th>
<th>Country</th>
<th>Govt. Level</th>
<th>Sample Size</th>
<th>Monitoring/ transaction cost percentage</th>
<th>Author/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>USA</td>
<td>Local</td>
<td>160 contracts (approx.)</td>
<td>Monitoring costs vary from 5-69% of overall costs</td>
<td>Stevens 1984</td>
</tr>
<tr>
<td>1988</td>
<td>USA</td>
<td>Local</td>
<td>80 organisations</td>
<td>Contract admin. costs average 6.6% of contract price</td>
<td>Berenyi &amp; Stevens 1988</td>
</tr>
<tr>
<td>1996</td>
<td>Australia</td>
<td>State</td>
<td>? results based on 1.5% of contracts sampled</td>
<td>Contract management costs average 2.7% of contract value</td>
<td>NSW Treasury 1997 quoted in Walker &amp; Walker 2000</td>
</tr>
<tr>
<td>1995-1998</td>
<td>Australia</td>
<td>State?</td>
<td>7,500 contracts</td>
<td>Contract management costs average 3% for contracts &gt; $1million, &amp; more than 5.5% for contracts &lt; $250,000</td>
<td>CTC Consultants reported by Mitchell 1999</td>
</tr>
<tr>
<td>1999</td>
<td>Africa</td>
<td>Two countries</td>
<td>2 case studies of multiple projects</td>
<td>Contract execution &amp; monitoring costs amount to 13-17% of total project budgets</td>
<td>Marek et al. 1999</td>
</tr>
<tr>
<td>1999-2000</td>
<td>Australia</td>
<td>Ctw.</td>
<td>4 main IT contracts valued at $732 million</td>
<td>Contract management costs increased as organisation size declined. Costs for 1st year = 3.7% to 23.3% of service charges</td>
<td>ANAO 2000</td>
</tr>
</tbody>
</table>

In the CTC Consultants study, which appears in the fourth row of Table 2.3, the researchers also found that of 7,500 contracts studied, where public sector organisations monitored contract/contractor performance, cost savings averaged 12%. Where organisations did not, costs increased by about 12%. Of additional note is the ANAO study (2000, p. 209) in the final row of the table which revealed that 'the transaction costs incurred by smaller agencies in relation to the value of services received were considerable in comparison to the larger agencies'.

Governments (and private companies) frequently fail to include transition, monitoring, and other additional costs in making outsourcing decisions (Borcherding 1988; Rehfuss 1990; Chalos 1995). More importantly, many public sector organisations do not have methods in place for, and cannot estimate the amount of monitoring costs (see, Prager 1994 for a review). In many cases where large cost savings have been claimed, it has been found that the organisations concerned have not included any estimates for the transaction costs of contracting (Paddon & Thanki 1995). A typical example of a transition cost oversight involved the outsourcing of management of a prison in Queensland. While the apparent saving through outsourcing was $4 million per annum, 'the calculations took no account of the redundancy [sic] payments to 400 ... staff' (Weller 1998, p. 112).
Contract monitoring is also important for future outsourcing. By developing experience ratings and conducting performance audits of contractors, information asymmetries can be reduced (Williamson 1973). Reducing information asymmetries assists in future contract revisions and negotiations and in reducing future transaction costs.

Transaction costs do not apply solely to the outsourcing option. Insourcing may also have its own transaction or bureaucratic costs. These can include research and development, innovation, staff development, and management costs associated with ensuring that in-house provision of the service remains responsive and meets required standards. Transaction costs associated with insourcing can be extremely high (D’Aveni & Ravenscraft 1994), and as these costs can be harder to identify than transaction costs associated with external supply, they are often not included in cost analysis of outsourcing decisions (Quinn & Hilmer 1994). If a public sector organisation is already efficient and competitive, the increase in overheads in respect of transaction costs can offset any potential savings from outsourcing.

2.7.5 Costing guidance & costing methods

It is my contention that in the absence of a generally accepted and consistently applied methodology for comparing the costs of both types of service delivery [i.e. in-house or outsourced], the claims of cost reduction ascribed to contracting out are frequently not verifiable. As a consequence, the cost reductions attributed to contracting out may be overstated in some cases, understated in others and perhaps even illusory in still other cases (Bishop 1993, p. 7).

Misstatement of costs, or inappropriate application of costing methods, have the potential to undermine the fundamental cost reduction objective behind the push for outsourcing of public sector services. Much of the government and industry guidance on costing for outsourcing decisions available to Australian public sector organisations is in conflict with the recommendations of the management accounting literature. The guidance is also in conflict with the specific area of the literature on the use of costs for outsourcing decision making in public sector organisations, including basic textbooks on the subject (see, for example, Glynn 1993, Granof 1998; Anthony & Young 1999).

Guidance material promulgated for use by public sector organisations, and previously discussed, generally suggests a full cost, and occasionally an accrual DCF basis for making outsourcing decisions. By way of contrast, the management accounting literature proposes that a relevant costs basis provides the most appropriate information.
for decision making in general, and specifically for determining the cost economy of outsourcing relative to insourcing. Furthermore, the government costing guidance literature often prescribes allocation of non-avoidable costs and inclusion of sunk costs, and promotes a focus on short-term costs (for criticisms of government guidance see, CTC Research Team 1995b; Johnstone 1997, 1999; Walker & Walker 2000).

Of further concern are the recommendations of the Industry Commission (1996) following its lengthy investigation into outsourcing by the Australian public sector. The Commission noted in its overview that:

- it is essential that the costing method for in-house bids cover all costs. These include overheads and other costs such as an appropriate return on capital (p. 36);
- agencies should ensure they avoid overly complex costing methods (p.37);
- the Net Avoidable Cost method is the preferred method (Recommendation 18, p.37); and,
- where the Net Avoidable Cost method is too costly to implement, other costing methods such as Activity Based Costing may be appropriate (Recommendation 18, p.37).

It can be argued that the Commission’s recommendations are inconsistent with the nature and purposes of particular costing methods and of their use in making outsourcing decisions. While direct overhead costs may be relevant and avoidable, indirect overhead costs usually are not, and yet no distinction is made in the guidance. The suggestion that an appropriate return on capital is included, but that a net avoidable cost basis is used, is contradictory. The return on capital, in this context, is a mark-up, not an avoidable cost. If a return on capital is to be incorporated at all, then a DCF method is more appropriate. However, it might be concluded that DCF/NPV methods fall under the heading of those methods which are 'overly complex'. The Commission also does not recognise the costliness of ABC relative to other costing systems.10

A complicating consequence is that public sector managers are provided with contradictory guidelines. For example, previous NSW government costing guidance (Office of Public Management 1991), based on Commonwealth guidelines, specified that full cost, which would include all direct and indirect (including non-avoidable) costs, should be used in costing for outsourcing decisions. More recent NSW guidelines (SCPAC 1997), while advocating a net avoidable cost basis, require that costs be expressed in discounted NPV terms. This contradicts its previous guidance and is at

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10 That ABC systems can be costly, see Blocher, Chen & Lin (1999, p. 101), and Horngren, Sundem & Stratten (1999, p. 142).
variance with the Industry Commission recommendations. Again, contrary to the Industry Commission (1996), the NSW guidelines stress that ‘ABC costs are inappropriate’, and are even less appropriate than full costs in providing information for making outsourcing decisions (SCPAC 1997, p. 45).

The discussion presented in this section has suggested that some costing methods are more appropriate than others for making outsourcing decisions. Table 2.4 provides a basic summary of costing methods in terms of appropriateness for making outsourcing decisions. Other accounting researchers (see, for example, Abernethy et al. 2000) have developed cost system design choice dichotomies similar in nature to Table 2.4, also for use in examining the level of sophistication and appropriateness of cost information for management decision making.

Table 2.4 Appropriateness of costing methods for outsourcing decisions

<table>
<thead>
<tr>
<th>Likely to be more appropriate</th>
<th>Likely to be less appropriate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoidable costs</td>
<td>Full costs (other than ABC)</td>
</tr>
<tr>
<td>Activity-based costs</td>
<td>Allocated non-avoidable overhead &amp; governance costs</td>
</tr>
<tr>
<td>Production costs plus transaction costs</td>
<td>Production costs only</td>
</tr>
<tr>
<td>Long-term costs</td>
<td>Short-term costs</td>
</tr>
<tr>
<td>Accrual-based costs</td>
<td>Cash-based costs (without DCF/NPV analysis)</td>
</tr>
<tr>
<td>Cash-based costs (with DCF/NPV analysis)</td>
<td></td>
</tr>
</tbody>
</table>

The classification of appropriate and inappropriate costing methods presented in Table 2.4 is consistent with the recommendations of Walker and Walker (2000) concerning costing methods for outsourcing decisions.

The discussion of a variety of costing methods and the government guidance that prescribes many of those methods yields the following proposition:

**Proposition 6:** Costing methods used to determine in-house costs for use in making outsourcing decisions in Australian public sector organisations are inappropriate for the purpose.

2.7.6 Cost savings & 'true' costs

When there are so many different costing methods that can be employed in making outsourcing decisions, it becomes difficult to see how cost reduction can be objectified, and how cost savings can be quantified. Each costing method is likely to result in different estimates of costs and cost savings, and may lead to different decisions.
The outsourcing literature often contains references to the need to know the ‘true’ costs of in-house service provision, or to the necessity of using full cost in order to find ‘true cost’ (see, Savas 1979; Seader 1986; Kelaher 1991a; Spence 1996). The previous discussion has highlighted that the ‘true’ cost of in-house service provision cannot be ascertained, nor is full cost equivalent to ‘true’ cost. Transaction cost economics assumes that costs are objective. Economists define true costs as opportunity costs, while costs derived from accounting systems are generally subjective costs (Chiles & McMackin 1996). Internal costs, which are based on accounting numbers, are at best only proxies for market-determined prices (Abernethy & Brownell 1992), and only in general equilibrium will costs measured by accounting methods equal objective costs as defined by economists (Vaughn 1980). Boer (1994, p. 34) suggests:

A more operational definition of true cost focuses on the relation of the cost value to the decision faced by a manager. That is, the accuracy of a cost is a function of the correspondence between the decision a manager has to make and the relevance of the cost to that decision. In this scheme, the closer a cost value matches that needed by a manager for a particular decision, the more accurate the cost ... A manager faced with a make-or-buy decision wants to know which costs will change with this decision, and by how much.

Many of the costing methods recommended for use in public sector outsourcing decisions meet neither the characteristics of an economic nor an operational definition of ‘true’ cost. The operational definition of true costs provided earlier is one of conditional, rather than absolute truth (Horngren 1975), and supports the proposition that full costs are unlikely to be relevant in outsourcing decision making. This being the case, and recognising that full costs or some hybrid thereof are often used in public sector outsourcing decisions, the literature and research findings on cost savings from outsourcing must be viewed with caution.

2.8 Cost savings research

The amount of cost savings achieved by public sector organisations through outsourcing has been the subject of a vast number of research studies in Australia and overseas. Even in the mid-1980s researchers admitted that ‘the cost savings of contracting out have been studied extensively’ (Ferris 1986, p. 290). The results and findings of such studies, are however, quite mixed, inconclusive, and in some cases contradictory.
2.8.1 Findings

Researchers have summarised the results of many cost savings studies (see, for example, Borcherding, Pommerehne & Schneider 1982; Moore 1987; Paddon & Thambi 1995; Hodge 1996). Some indicative results are presented in Table 2.5, and a few particularly important studies are discussed in detail following the tabular presentation.

**Table 2.5 Cost savings studies**

<table>
<thead>
<tr>
<th>Year</th>
<th>Country</th>
<th>Govt. Level</th>
<th>Sample Size</th>
<th>Cost Savings</th>
<th>Author/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985-1986</td>
<td>Australia</td>
<td>Local (Vic.)</td>
<td>23 organisations</td>
<td>17% for refuse collection services</td>
<td>ACC 1988a</td>
</tr>
<tr>
<td>1987</td>
<td>USA</td>
<td>Local</td>
<td>1,086 contracts</td>
<td>Between 10-40% for 4/5 of municipalities</td>
<td>Fixler, Poole &amp; Scarlett 1987</td>
</tr>
<tr>
<td>1987-1988</td>
<td>Australia</td>
<td>Local (SA, Tas.)</td>
<td>Approx. 127 organisations</td>
<td>9-46% depending on nature of service</td>
<td>ACC 1988b</td>
</tr>
<tr>
<td>1990-1991</td>
<td>Australia</td>
<td>Local</td>
<td>58 organisations</td>
<td>Cost savings likely, test statistic not significant</td>
<td>Albin 1992</td>
</tr>
<tr>
<td>1993</td>
<td>Australia</td>
<td>State</td>
<td>76 organisations</td>
<td>40.2% saving on IT outsourcing for budget-funded agencies; 5-10% savings for GTEs</td>
<td>Domberger, quoted in Hilvert 1994</td>
</tr>
<tr>
<td>1976-1994</td>
<td>International: Australia, UK, USA, Canada, Switzerland</td>
<td>All levels</td>
<td>128 prior studies</td>
<td>Average 9-14%. Found that the more recent &amp; more sophisticated the study, the less the cost savings</td>
<td>Hodge 1996</td>
</tr>
<tr>
<td>Mid 1990s</td>
<td>Australia &amp; overseas</td>
<td>All levels</td>
<td>Not disclosed</td>
<td>In 75% of studies cost savings were achieved. Savings of 10-30% achieved in 50% of studies. Where contract mgt costs could be estimated, savings averaged 16%.</td>
<td>Industry Commission 1996</td>
</tr>
<tr>
<td>1995-1998</td>
<td>Australia</td>
<td>State ?</td>
<td>7,500 contracts</td>
<td>-8.6% to +46.4% depending on service type, contract value &amp; other factors</td>
<td>See Mitchell 1999</td>
</tr>
</tbody>
</table>

Table 2.5 shows the variation in cost savings findings from some typical studies conducted in Australia and overseas, at varying levels of government. In addressing the results of some of the UK research on cost savings, Paddon (1991b) contends that the range of variation in savings makes arithmetic averages of cost savings questionable. He observes (Paddon 1991a, p. 9) that 'the only safe conclusion to be reached is that it would be unsafe to reach any definite conclusions'. From an Australian perspective and in the context of a critical review of outsourcing, costs and cost savings for the public sector, several studies are of note.
The main case in point is the much quoted work on public sector contracting of Simon Domberger, who concluded that outsourcing of council refuse collection, and domestic services in hospitals in the UK generally results in a 20% cost saving (Domberger, Meadowcroft & Thompson 1986, 1987). Domberger reiterated, defended and produced results consistent with the ‘20% rule’ in a large number of subsequent studies and publications on contracting out in both the UK and Australian public sectors (see, for example, Cubbin, Domberger & Meadowcroft 1987; Domberger 1988; Domberger, Meadowcroft & Thompson 1988; Domberger 1989, 1993a, 1993b, 1994a; Domberger, Farrago, Hall & Li 1993; Domberger & Farago 1994; Domberger & Jensen 1997; Domberger 1998). However, in one publication Domberger & Hall (1995, p. 7) implicitly question the validity of the cost savings findings by stating that ‘assessment of the full costs of in-house provision is often difficult and imprecise’. Several authors have been critical of the validity and methodology of the Domberger studies (see, for example, Ganley & Grahl 1987; Hodge 1996; Walker & Walker 2000).

Others, such as Rimmer (1991), maintained that the 20% rule was ‘beyond dispute’, but later (Rimmer 1994) stated that the Australian evidence on cost savings was not conclusive, and that the long-term cost efficiency of contracting was unclear. A further four years on, Rimmer (1998) acknowledged that while there is minimal evidence on the transaction costs associated with contracting out, ‘what is known of these costs indicates that, in most cases, there would still be net savings from CTC’ (p. 78)

In a similar vein, Hodge’s (1996, p. 55) large scale international meta-analytical study (28 studies, n=20,131) of contracting out government services, found the average cost reduction from outsourcing to be around 9% to 14%. However, he notes (Hodge 1998, p. 105) that this estimate ‘does not include any costs associated with the contracting process, whether transitional or monitoring costs’. In other words, transaction costs were ignored. Later, Hodge (1999), revised the cost savings figure down to 6% to 12% in an effort to account for the transaction costs which he then acknowledges are “largely unknown”.

The foregoing examples serve to illustrate the inconsistencies of much of the purported evidence on cost savings from outsourcing by the public sector. Generalisations about

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11 That Domberger’s ‘20% cost reduction rule’ is much quoted is supported by Paddon (1991a, p. 12-14), Ernst (1994, p. 80-81), Murfitt, Glanville & Ernst (1996, p. 11) and Hodge (1996, p. 26).
the amount of cost savings should be viewed with caution, given that even the authors of such statements concede that the methods used to calculate savings are often inappropriate or inaccurate.

As well as the debate over the accuracy of cost savings figures, there are other, related concerns. For example, Hodge (1996) found that cost savings from outsourcing were service-type dependent. Outsourcing routine services like cleaning and maintenance were more likely to produce cost savings or larger savings, than outsourcing more complex services. Further, if the argument is accepted that cost savings are service-type dependent, the bundling of cost savings into averages becomes even less meaningful. On the contrary, the Industry Commission (1996) and Rimmer (1998, p. 78) report that 'savings from CTC vary widely and do not appear to be strongly related to the type of service considered'.

Finally, Albin (1992) and Escott and Whitfield (1995) suggest that even if cost savings are made, they do not appear to be passed on to the public. Savings are instead absorbed by the organisations concerned and used to fund additional managerial positions or perquisites, or are offset by increased unemployment benefit payments, thus producing no lowering of the cost of government.

2.8.2 Methodology
In conducting a meta-analytical review, Hodge (1996) found many empirical studies to be unusable because of methodological weaknesses. He also found that the cost savings reported in certain studies were not significant after applying statistical tests. Boyne (1998) has criticised the UK local government contracting literature for the same reasons. While there are certainly methodological limitations to many of the public sector outsourcing studies previously conducted, problems in the cost savings research are more fundamental. Given a plethora of costing systems being used by public sector organisations, that these systems are possibly incompatible, and that a single organisation might cost different outsourcing decisions in different ways, it is difficult to see how cost savings figures can be derived. This complexity is exacerbated in studies combining cost savings figures for various contracts, in various organisations, and sometimes various countries.
It is likely that much of the research on cost savings was based on the presumption that accounting numbers are objective, or at least, that the methods for calculating those numbers are appropriate and consistently applied within and across organisations. Previous discussion offered in this chapter reveals that this presumption is invalid. Other research appears to be based on guesstimates.

For example, CTC Consultants (1996, Sec. B2/3 – B3/3) headed by Simon Domberger, surveyed NSW government agencies in an effort to determine the average level of cost savings experienced. The cost savings ‘evidence’, derived from responses to questions appearing in the survey, seems to be based on a comparison of contract value compared to either:

(i) agency manager’s ‘estimates’ of annual in-house cost prior to contracting; or,
(ii) reduction in the number of full-time equivalent staff (presumably with a value attached by the researchers); plus,
(iii) management costs for the contract if they could be calculated, or a full-time staff estimate in respect of contract management (again, presumably with a value attached by the researchers).

In the contract management costs question of the CTC survey, transition costs are not explicitly included. For costing in-house expenditure, instructions accompanying the questionnaire suggest that in-house cost equals direct costs plus ‘total indirect expenditure ... apportioned to each service category based on staff numbers, space occupied or some other measure’ excluding depreciation and interest (CTC Consultants 1996, Sec. 1 1/ 2). Examples of indirect expenses provided in the instructions, include ‘rent, general office expenses and corporate overheads’, all of which might not be avoided when an organisation contracts out. Consequently, any resultant cost savings based on the information collected would have to be interpreted with extreme caution.

Apart from validity issues concerning the cost savings research, cost savings studies can have undesirable effects on policy and practice. A major issue arising from the UK findings which produced the 20% cost savings ‘rule’ is that the findings have been misquoted and misapplied; used as a general rule for all types of services in all types of industries and organisations. Even in Australia, Domberger’s ‘20% rule’ has been adopted to such a large extent that:
• 'its advocates happily toss around a figure of 20% as the average cost saving that governments can make by embracing contracting out' (Hayward 1994, p. 26);
• it has become a 'popular belief among politicians that "contracting out saves 20%"' (Russell 1996, p. (i));
• 'the claim of 20% savings from contracting out became part of the repertoire of catchphrases favoured by privatisation advocates' (Walker & Walker 2000, p. 156); and,
• 'academics and conservative politicians jumped on the figure as a panacea for curing business and government inefficiencies' and 'there is a herd mentality developing as the federal and state governments charge into outsourcing deals' (Kennedy 1995b, p. 17, 1995a, p. 6).

Thus political agendas and radical public sector reforms were and are based, at least in part, on information that may not be correct nor applicable to the organisations concerned. As positive accounting theory suggests, political costs and government reaction to negative media reports and negative public perceptions affect politicians' actions and their use of accounting numbers to support those actions. Accounting-derived numbers, such as the cost savings 'rule', provide justifications and extemporisations within the political process for effecting wealth transfers. Deegan (1999, p. 80) submits that:

Politicians may rely on accounting numbers to justify their own particular actions or provide 'excuses', given the expectation that it is costly for constituents to 'unravel' accounting numbers derived from particular, and perhaps alternative, accounting methods.

Apart from politicians adopting the 20% rule and other cost savings research to bolster and legitimise their positions, Savas (1981) noted that studies that demonstrate cost savings also encourage public sector organisations (rightly or wrongly) to outsource.

In discussing the agency literature, Baiman (1982, p. 191) stresses that 'the managerial accountant's role is to design the firm's pre-decision and post-decision information systems'. While pre-decision cost information informs managers and can help reduce information asymmetries prior to contracting, post-decision information is also necessary. Even when the costing methods applied may be inappropriate to the outsourcing decision, given that the objective of outsourcing is to reduce costs; the final step in the decision process should be an evaluation of the cost economy of those
decisions. Such an evaluation is important not only for assessing if planned goals and objectives were achieved, but also in discharging accountability obligations to parliament and the public, and as a feedback control useful in future outsourcing decision making. The following proposition reflects this notion:

**Proposition 7:** *Australian public sector organisations use cost information to assess if cost savings have been made from outsourcing, consistent with the cost savings objective of outsourcing.*

While costs and cost savings have been afforded importance in government policy and in the public sector outsourcing research literature, and are the particular focus of the current research, they are not the sole considerations in outsourcing decision-making.

### 2.9 Non-cost factors & outsourcing decision-making

Prior sections of this thesis have implied that public sector organisations might pursue goals other than cost savings, might pursue multiple goals, or might engage in rationalisation processes to 'invent' goals after a decision has been made. Whether or not a cost savings goal is pursued, there is certainly evidence to suggest that cost and financial factors are not the only considerations in making outsourcing decisions in either public or private sector organisations.

Section 2.2.9 introduced the possibility that many public sector outsourcing decisions are non-programmable and non-routine. Such decisions can involve both uncertainty about the future and ambiguity with respect to service standards and performance. While accounting, costing information and financial factors have a role to play in providing information useful to make these decisions, accounting information is not solely suited to non-routine, non-programmable decision situations (Anthony 1985; Abernethy & Guthrie 1994). Generally involved in non-routine decision making will be the use of a cost-benefit approach that will typically require a mixture of both quantitative and qualitative information, and will necessitate application of judgement, and heuristic problem-solving techniques, as well as financial analysis. While much public policy, theory and research literature are firmly focused on the cost-related aspects of outsourcing decisions, there is empirical and other evidence to suggest that cost is not the only factor relevant to or considered in making those decisions. The role and importance of costs in outsourcing decision-making is thus a relative one.
To determine the likely nature of other primary or secondary objectives and to unearth details concerning the nature of other factors important in making outsourcing decisions, an original content analysis study was undertaken. Information relating to this content analysis study, and the results of this study, are briefly summarised below. Full details pertaining to the purpose, sampling strategy, results and findings of the study are presented in Appendix 1. In summary, the content analysis of outsourcing literature was conducted with a view to:

- establishing the nature of the purported benefits and advantages of, and reasons for engaging in outsourcing;
- determining the nature of the problems or disadvantages most often ascribed to outsourcing;
- gathering information on the nature of variables (and underlying constructs) affecting the outsourcing decision to assist in model building (see, Figure 2.8); and,
- using the details of this analysis to assist in the development of structure for the subsequent steps in the research process (Chapter 3).

The results of the content analysis ($n = 66$) of literature accord with general impressions gained from the literature review described in this chapter. In particular, the content analysis study affirmed the predominance of the cost savings objective. The study also identified a large number (23) of other reasons for outsourcing, as well as several (14) disadvantages of outsourcing. For example, 55% of literary sources analysed suggested that access to technical expertise and the provision of complex services was an important reason for outsourcing. Other goals, such as service quality improvements (cited by 47% of sources), strategic objectives (cited by 41%), and flexibility (34%) were also noted. As discussed in Appendix 1, the results were generally consistent with the content analysis study of outsourcing by Altinkemer, Chaturvedi and Gulati (1994) ($n = 17$), with Peak’s outsourcing case studies (1994) ($n = 14$), and with Greenburg and Canzoneri’s (1997) outsourcing survey ($n = 619$).

Based on the research and other evidence presented in this chapter, and on the content analysis of literature described in this section, it follows then that:

**Proposition 8:** Non-financial factors, such as improved service quality, greater flexibility, and access to better technology, are considered in making outsourcing decisions in Australian public sector organisations.
Supporting both the contention that cost savings and financial factors may not be solely or even particularly important in outsourcing decision making is the issue of dependency in decision-making (Cooke & Slack 1991, p. 24). That is, past outsourcing decisions can influence future ones and an outsourcing decision concerning one area of the organisation can influence other areas of the organisation. This can lead to a form of hysteresis, whereby past decisions dictate the course of future decisions. For example, by divesting itself of a group of assets (e.g. infrastructure or technical expertise) through outsourcing, an organisation may lock itself into further outsourcing. The role of accounting information in such situations is less than clear and may explain why non-financial factors are important in making particular outsourcing decisions.

2.10 Model development

2.10.1 A multi-theoretical perspective

While agency theory addresses the need for contracting, TCE aids in the explanation of the form of contractual exchanges. Under the TCE view of contracting, economising involves the study of costs, adaptation, and monitoring under alternative governances (Williamson 1981). Contingency theory is also concerned with adaptation, in order to regain fit between structure (including basic governance structure) and objectives, such as the cost economising objective set for public sector organisations. Collectively, agency theory, TCE, and contingency theory highlight the ways in which environmental uncertainty, and human, organisational and transactional factors structure relationships within and between organisations.

Where \textit{ex ante} uncertainty is low, detailed contracts are likely to be developed, and accounting numbers should play an important role in monitoring contractual compliance. Even when contracting in high uncertainty environments and where real measures of efficiency and effectiveness do not exist, accounting numbers may remain important because of the legitimacy they are accorded by the organisation’s external constituents (Tiessen & Waterhouse 1983, p. 262-263).

Both agency theory and TCE complement and can provide an elaborated view of contingency theory, which can assist in the development of a descriptive theory of management accounting (Spicer & Ballew 1983; Tiessen & Waterhouse 1983). Even proponents of contingency theory, critical of economics approaches, recognise that TCE
offers a vehicle for integrating contingency theory into a larger explanatory domain (Robins 1987). The critics also acknowledge that a combination of agency theory, TCE and structural contingency theory may be useful in studying accounting, and in studying the relationships between organisations and opportunistic outsiders (eg. contractors) (Donaldson 1995a, pp. 229-230).

Joint application of both TCE and contingency theory has been featured in the study of organisational performance control (see, for example, Drennan 1995), performance monitoring in a statutory trading authority (Anderson & Drennan 1993), and in studies of IT outsourcing (see Borchers 1996; Davis 1996).

2.10.2 Multi-theoretical model

These manifold perspectives are reflected in the aims and research questions of the study and the model developed for guiding the research. The review of literature of decision models, outsourcing practice, and theories of contracting and organisational structure provided the basis for developing an original multi-theoretical model for conducting the research. The model, presented in Figure 2.8, specifies the nature and tentative relationships between variables likely to be important in public sector outsourcing decision-making.
In summary, the multi-theoretical model suggests that the decision to outsource depends upon a number of key variables, including the core factors in the TCE framework (described in detail in section 2.4.2) and the interplay of these factors with other strategic factors and objectives. While the main implied objective of outsourcing decision making is the economic one of cost reduction, other objectives might also be pursued, or may take precedence over the cost savings objective.

Where a cost savings objective is pursued, whether costs savings are actually achieved will depend upon an assessment of in-house versus outsource costs, and on the costing methods used to develop the cost estimates of each alternative. The relevance and reliability of these cost estimates are likely to be a function of the sophistication of the management accounting system, and of the particular costing methods chosen for use. The relevance and reliability of the cost estimates will also depend on whether transaction (as well as production) costs have been considered. The decision to outsource, the achievement of cost savings and, in part, the appropriateness of the costing information used will also have relationships to the characteristics of the outsourcing transaction and the form of outsourcing contract.

The model has been informed by agency theory, TCE, and contingency theory, as combined in Spicer and Ballew’s (1983) framework for investigating management accounting and the organisation of economic activity. Variations to the basic Spicer and Ballew (1983) framework are italicised in Figure 2.8. Also integrated into the model’s structure are a number of other variables that have been variously derived from the content analysis study (Appendix 1) conducted to inform the research and extant public sector outsourcing models. The additional contributions of each of these perspectives to the development of the model are discussed below.

A prime consideration in examining the role and use of costs in public sector outsourcing decisions is determining if a cost savings objective is actually pursued. The literature review has unearthed evidence to demonstrate that this objective is accorded predominance in Australian government outsourcing policy and that it represents the popularly believed, primary objective of public sector outsourcing.

Issues of competing and conflicting objectives in organisational decision making, of ex post rationalisations for decisions, and of goal incongruence and dysfunctional
behaviour have been canvassed in previous sections of this chapter. Given that the principal research question addressed in this thesis is ‘how and why are costs and costing information used in making outsourcing decisions in Australian public sector organisations’, alternate objectives to cost savings have to be considered.

To determine the likely nature of alternative primary or secondary objectives, an original content analysis study was conducted, and key results of the study reported in section 2.9. The main findings of the content analysis study were incorporated into the multi-theoretical model (Figure 2.8). For example, strategic objectives were identified as central to some outsourcing decisions. In particular, a differentiation between outsourcing for core and non-core activities was noted, which is often associated with increasing competition and strategic change (Booth 1995a, p. 4). This led to an addition of a core/non-core activity component to the ‘characteristics of transactions’ aspect of the model. Other important objectives of outsourcing identified through the content analysis study, such as the potential to realise service quality improvements and to gain flexibility, have been added to the model as exemplars.

The multi-theoretical model (Figure 2.8) also draws upon the work of researchers who have attempted to investigate the contracting process in the public sector by looking at specific factors, or by developing comprehensive multi-factorial models. In the latter category, aspects of the local government contracting models of Ferris (1986), Dubin and Navarro (1988), and Hirsch (1991, 1995a, 1995b) were applied. For example, Hirsch (1991) suggests that the net societal benefit of outsourcing should be described by the following equation:

\[ NB = F(X_a, X_b, X_c) \]

where:

- \( NB \) = the net social benefit of outsourcing a specific service,
- \( X_a \) = benefit derived from cost (efficiency) changes,
- \( X_b \) = benefit derived from accountability changes, and
- \( X_c \) = benefit derived from equity changes.

Thus the model presented in Figure 2.8 includes aspects of outsourcing decisions relating to cost, accountability and equity. It also includes factors relating to organisation size, organisation type, level of government and location as means to account for differences in MAS and outsourcing decision-making. Some of these variables, such as organisation type, are also likely to be reflective of strategy, the environment, and other underlying contingencies.
Clearly, outsourcing decisions are complex – multiple variables are likely to be interconnected and interrelated. The model provides the opportunity to map the significance of costs and costing methods within this framework and to understand why costs are afforded a particular level of significance or insignificance.

This chapter has identified several gaps in the literature relating to costing for outsourcing decisions in the public sector. In particular, the theoretical literature fails to address the distinctiveness of outsourcing in the public sector context and is primarily concerned with private sector environments. Further, the research and professional literature concerning public sector outsourcing reflects a preoccupation with the amount of reported cost savings, rather than with the practices used to derive those reported savings. Much of the theoretical, research and other literatures are also based on the presumption that costs and cost-related information are used in outsourcing decision-making, and fail to question this presumption. The chapter has also suggested that actual costing practices are not necessarily the practices that should ideally be used. In discussing management accounting research Scapens (1991, p. 34) maintains:

Accordingly, it would seem reasonable to look for explanations of the gap between theory and practice by questioning the basis of the theory, as well as by exploring the nature of practice.

The research propositions presented throughout this chapter follow Scapens’ advice by examining current practice, comparing that practice to available theory, and considering if and why that theory falls short of providing adequate explanations of observed practice. The research questions (from Chapter 1), and the propositions developed in Chapter 2 to answer them are summarised below.

With the exceptions of Propositions 2 and 4A, which were qualitatively examined for the reasons discussed in later chapters of the thesis, all other propositions were investigated using both qualitative and quantitative data. The mix of qualitative and quantitative data used provided the rationale for using propositions, rather than hypotheses, as the chief frames of reference for addressing the main and support research questions. Similarly, since most of the propositions posit clear relationships or outcomes, such as the contention of Proposition 1, that cost savings are the most important objective of outsourcing, such propositions did not need to be translated into hypotheses to enable quantitative testing. Where the direction and/or strength of
particular relationships could not be presumed on the basis of existing theory and evidence (for example in respect of Proposition 8), hypotheses were not developed.

However, where theory and the findings of prior research clearly indicate the anticipated strength and/or direction of particular relationships, to better facilitate quantitative testing these propositions were converted into series of hypotheses which were examined using quantitative data, reported in Chapter 5. The key propositions concerned were Propositions 4B, 5A and 5B and the hypotheses related to these propositions also appear below.

<table>
<thead>
<tr>
<th>Primary Research Question:</th>
<th>How and why are costs and costing information used in making outsourcing decisions in Australian public sector organisations?</th>
</tr>
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Support Research Question 1: How important are costs and the potential to realise cost savings in the decision to outsource?

Proposition 1: Cost savings are the most important objective of outsourcing by Australian public sector organisations.

Support Research Question 2: How are outsourcing decisions made and what role do costs play in the choice process?

Proposition 2: Outsourcing decisions in Australian public sector organisations reflect a bounded rationality model of choice, contained by public sector political imperatives.

Proposition 3: Australian public sector organisations choose to outsource for services when the purchase and transaction costs associated with external supply are less than the costs of continued in-house production.

Support Research Question 3: Do the various human and transactional factors associated with agency theory and transaction cost economics accurately describe the factors important in making outsourcing decisions?

Proposition 4A: The outsourcing decisions of Australian public sector organisations are influenced by human factors of opportunism and goal congruence; and
Proposition 4B: The outsourcing decisions of Australian public sector organisations are influenced by transactional factors of asset specificity, performance ambiguity and complexity, uncertainty, and the competitiveness of markets.

Derived from TCE, and using the logic of the theory, the following hypotheses are advanced for quantitative testing in respect of Proposition 4B:

H 4B.1 Australian public sector organisations prefer to outsource when asset specificity is low.
H 4B.2 Australian public sector organisations prefer to outsource when performance ambiguity and complexity are low.
H 4B.3 Australian public sector organisations prefer to outsource when uncertainty is low.
H 4B.4 Australian public sector organisations prefer to outsource when markets are competitive.

Support Research Question 4: Do other factors or contingencies, such as organisation size or organisation type influence outsourcing decision making and the role and significance of costs in making these decisions?

Proposition 5A: The role and significance of costs and costing information for outsourcing decisions in Australian public sector organisations is influenced by organisation size; and,

Proposition 5B: The role of costs and costing information for outsourcing decisions in Australian public sector organisations is influenced by organisation type, level of government, and organisation location.

Derived from contingency theory and the existing research evidence, for quantitative testing, Proposition 5 becomes:

H 5A.1 Costs and costing information increase in importance in the outsourcing decision-making of Australian public sector organisations as organisation size increases.

H 5B.1 Costs and costing information are more important in the outsourcing decision-making of Australian local government organisations than in Australian budget-funded and self-funded public sector organisations, or State or Federal level public sector organisations.
Support Research Question 4: Which costs are quantified and used in the outsourcing decision process? What methods are applied in the calculation of these costs and how appropriate are these methods in providing useful information for the outsourcing decision? And, consequently, how real or imaginary are the cost savings likely to be based on the costing methods and cost data employed?

Proposition 6: Costing methods used to determine in-house costs for use in making outsourcing decisions in Australian public sector organisations are inappropriate for the purpose, and;

Proposition 7: Australian public sector organisations use cost information to assess if cost savings have been made from outsourcing, consistent with the cost savings objective of outsourcing.

Support Research Question 5: What other factors are important in the decision to outsource and how do they relate to and how significant are they compared with costs?

Proposition 8: Non-financial factors, such as improved service quality, greater flexibility, and access to better technology, are considered in making outsourcing decisions in Australian public sector organisations.

Chapter 3 details the research methodology and methods applied to address each proposition and answer the research questions.
CHAPTER 3: RESEARCH DESIGN AND METHODS

3.1 Introduction

The nature of the research question, and the propositions generated in Chapter 2 that support it, provided guidance for deciding upon the appropriate methodology and research methods to be used.

Chapter 3 commences with a review of the philosophical foundations of research. These foundations rest on ontologies and epistemologies that are fundamental to the conduct of research, and which guide the selection of research methodology and methods. After reviewing research philosophy in general, the process of development and selection of the research paradigm is discussed and justified with respect to the research question.

Subsequent to delineating the philosophical context of the research, the research design and strategy is outlined, and each of the specific research methods discussed. A multiple methods approach was adopted and each method applied is defined, discussed in terms of purpose and justification, the sampling strategy outlined, data collection and analysis methods summarised, and strengths and weaknesses identified. The approaches to triangulation within and between methods are also described.

3.2 Philosophy of research

A fundamental axiom of 'good' research is that the research methods chosen for use in a study should be driven by, and appropriate to the research questions posed (Abernethy et al. 1999). However, a specific research question, and the research method/s chosen for use in answering that question are also presumptive of a particular methodological perspective. Methodology, in turn, reflects an underlying philosophy comprising an ontological view, and the epistemological assumptions that derive from that ontology. Thus the most basic considerations in posing and answering research questions relate to a researcher's ontological and epistemological assumptions.
3.2.1 Ontology & epistemology

Ontology is a branch of metaphysics concerning the nature of existence. Researchers’ ontological assumptions affect the way they view the world and what is considered to be ‘real’. Deriving from ontology is epistemology, which concerns the theory of knowledge, its nature and limits (Blackburn 1996) and how people acquire and accept knowledge about ‘reality’. Researchers’ ontological viewpoints shape their epistemological beliefs in terms of how knowing and understanding of reality can be developed. There are several such viewpoints on the nature of reality that can be characterised as:

- materialism - reality is objective, concrete, or material; or,
- idealism - reality is subjective, spiritual, or non-material and relativistic; or,
- interactionism – reality is constituted of both matter and mind; a position in between the materialistic and idealistic views.

The first of these views, materialism, is generally representative of:

> the positivist or mechanistic view which stipulates that the scientific method of the physical and natural sciences is equally applicable to the social sciences and the study of human behaviour (Bright 1991, p. 24).

Positivism is a highly objectivist view of a common, single reality. In its purest form, it suggests that human behaviours can be reduced to the state of generalised laws in which the individual is not of significance (nomothetic). The requirement for such universal principles implies a quantitative methodology. The precision and usefulness of theories derived in this manner are judged by their capacity to explain and/or predict phenomena, although a sub-set of the positivist view, instrumentalism, regards predictive ability, rather than explanatory power, to be paramount (Friedman 1953).

By way of contrast, idealism rejects the notion that human behaviours are deterministic. Rather, the meanings of phenomena are contextual and/or socially defined. Reality is therefore internally experienced and interpreted. Within this paradigm, the individual is unique and significant (idiographic). Consequently, this view suggests that research should be interpretive and naturalistic, adopting a qualitative methodology.

However, even within an overarching idealistic or interpretivist world-view there are divergent positions. For example, constructivism suggests there are multiple realities because reality is subjective and socially constructed (Berger & Luckman 1966). Research within such a paradigm is both humanistic and dialectic. Alternatively, the critical theory approach, also holding that reality is subjective, suggests historical and
other mechanisms shape reality and that researchers are transformative intellectuals with
the ability to change the social order (Guba & Lincoln 1994; Perry, Alizadeh & Riege
1997). Critical theorists accept a modified form of realism, wherein reality is created by
the powerful who have obfuscated or obscured reality, and manipulated the
unemancipated into believing an illusory reality. Within critical theorists’ work, the
mathematical and statistical modelling favoured by positivists is excluded, and
quantitative methods are used to a lesser extent; instead there is a marked emphasis on
detailed historical explanations (Chua 1986a, p. 620). Interpretive research, whether
based on critical theory or social constructionism, is usually naturalistic, unstructured,
context specific, often not based on prior theory or utilises grounded theory, and
provides narrative and interpretational descriptions of events (Holmes, Hodgson and

Given this broad outline of the philosophy of research, the next step in determining an
appropriate research paradigm for the current research involved consideration of the
ontologies and epistemologies used in prior outsourcing and accounting research.

3.2.2 Ontology & epistemology of outsourcing & accounting research

Greve (2001), following Miller and Simmons’ (1998) Baudrillardian-based1 typology of
the meanings of privatisation, suggests that there are four different ways to study
outsourcing. Each of these four interpretations are matched below with the research
paradigms to which they appear to refer:

1. Outsourcing is assumed to be a real event (positivism).
2. Outsourcing should be approached sceptically; involving researchers critically
examining claims made about its achievements (critical realism).
3. The hidden political reality of outsourcing must be unmasked (critical theory).
4. Outsourcing must be understood in a self-referential way (constructivism).

For the most part, transaction cost economics (TCE) outsourcing research has been
conducted within the positivist paradigm. Accounting research has also been dominated
by a preference for objectivist ontological orthodoxy, as demonstrated in much of the
literature.2 Surveys of leading management accounting journals reveal the majority of
articles are based on agency theory or (TCE) using analytical or survey methods
(Shields 1997).

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1 The typology is based on the writings of postmodernist philosopher Jean Baudrillard (1994).
2 As reflected in the majority of articles published in major journals such as Accounting Review, Journal
However, in the last eighteen years, accounting researchers have also explored the field from the idealistic and naturalistic standpoints. There is a burgeoning area of the literature represented by accounting historians, ‘radical’ and other theorists who utilise various interpretive, critical and constructionist approaches (Bisman 1998; Ritson 2001). These variants of accounting research are generally concerned with interpretation, often presuming that accounting information is not objective, but rather, subjective and socially or politically constructed (Chua 1986b; Hines 1991, 1992).

In recent years, the disciplines of accounting and finance:

have become a battleground between researchers with different, and often unstated methodological assumptions about the nature of reality, the role of theory and the significance of empirical experimentation (Ryan, Scapens & Theobald 1992, p. 3).

This ‘battleground’ is composed of those adopting a materialist/positivist philosophy versus those adopting an idealist/interpretivist philosophy. In many disciplines, such debates are labelled ‘paradigm wars’, and the debate is both ontological and epistemological. Differing views about the nature of reality (ontology) affect the relationship between the researcher and reality and whether reality is deemed to be discoverable from an objectivist or subjectivist standpoint (epistemology). Both ontology and epistemology influence methodological choice (quantitative or qualitative). The debate serves to emphasise not only the need to match research methods to research questions, but to make explicit in reporting research, the underlying research philosophy as well as the research methods.

The research question, concerning the use of costs and costing information in making outsourcing decisions in the Australian public sector, could be addressed adopting a positivist stance, although it would not be ideal in answering the question for several reasons. The costs derived from accounting systems are human-made and have no natural existence. Thus costs are not ‘objective’ in the physical sense, nor in a positivist economic sense (Chiles & McMackin 1996), and so the research question is not rooted in a purely objective, positivist ‘reality’. Further, as the tentative multi-theoretical model (Figure 2.8) illustrated, there is considerable complexity involved in public sector outsourcing decisions. A simple quantitative model was therefore unlikely to be

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3 See for example the journals Accounting History, Accounting Historians Journal, Accounting Organizations and Society, Accounting, Auditing and Accountability Journal and Critical Perspectives on Accounting.
capable of describing or explaining public sector outsourcing, and a complex
quantitative model unlikely to be capable of appropriate testing and useful, practical
application.

On the other hand, qualitative analysis provided a means to develop and situate practice
within a theoretical framework that assisted in describing this complexity. However,
because interpretivism is essentially non-reductionist it lacked the capacity to make
generalisations concerning the role of costs in outsourcing decisions across the wider
spectrum of the Australian public sector. Whether desirable or not, generalisations are
often necessary for shaping or improving practice and policy, which cannot, in practical
terms, be customised to suit each and every individual context. As the literature review
revealed, outsourcing policy has been founded on the use of generalisations made from
research results on cost savings (see section 2.8). Among the list of contributions the
research presented in this thesis could make (see section 1.4), was the potential to affect,
change or reform government outsourcing policy. In order to make this contribution
some degree of generalisability of research results was also required, implying the need
to use quantitative methods and inferential statistics in analysing some of the data.

The need for qualitative methodology to explicate multifarious relationships between
variables in outsourcing decision-making, and quantitative methodology to produce
more broadly based conclusions, posed something of a problem, particularly
considering that research in accounting is methodologically divided.

In examining the role and importance of costs in public sector outsourcing decisions,
neither positivist nor interpretivist approaches were capable of providing the necessary
mix of depth, richness and context, combined with the ability to make some
generalisations useful for informing policy and practice. Consequently, the nature of
the research question suggested the application of multiple research methods. While the
use of multiple methods in accounting and business research is not a new idea (for
example see, Birnberg, Shields & Young 1990; Easterby-Smith, Thorpe & Lowe 1991)
this thesis ventures a step further in arguing as necessity, the concomitant adoption of a
philosophical research paradigm reflecting a combined methodological approach.

Such an approach needed to recognise the validity of both quantitative and qualitative
methodologies, retain scientific rigour, and acknowledge the value of richness and
context, as well as the importance of generalisability. A research paradigm providing these features is critical realism. While this paradigm does not obviously appear to have been applied before in accounting research, there is strong support for its use in other business-related fields such as economics and marketing (see for example, Hunt 1990, 1992; Lawson, T. 1996; Fleetwood 1999; Healy & Perry 1998, 2000).

3.2.3 Basis of critical realism

The philosophy of critical realism discussed here could be said to straddle two independent, but not mutually exclusive\(^4\) schools of thought. The first is American critical realism, a relatively short-lived movement of the early twentieth century, and the second a contemporary and arguably more critical\(^5\) philosophy, also dubbed critical realism, and represented principally by Bhaskar (1978, 1979, 1989; Collier 1994). Critical realism is a school of thought in its own right\(^6\) distinct from naïve (positivist) realism and from radical and constructivist conceptions (Tholey 1989), and is not to be confused with the Frankfurt School or French critical theory movements.

Critical realism is a specific form of scientific realism where the objects of science are distinct from the practice of science (Brown 1999), or as Bhaskar (1975, p. 183) puts it:

I have argued that the concept of natural necessity is the concept of a real generative mechanism at work, a concept which is applicable to the world quite independently of men.

Critical realism, which is situated under the umbrella of postpositivism, offers a modified objectivist view; it is both scientific and transcendental, seeing the world as structured, differentiated and changing:

Critical realism: Any doctrine reconciling the real, independent, objective nature of the world (realism) with a due appreciation of the mind-dependence of the sensory experiences whereby we know about it (hence critical). In critical, as opposed to naïve, realism the mind knows the world only by means of a medium or vehicle of perception and thought; the problem is to give an account of the relationship between the medium and what it represents (Blackburn 1996, p. 88).

While positivism concerns a single, concrete reality and interpretivism multiple realities, realism concerns multiple perceptions about a single, mind-independent reality (Healy & Perry 2000). Critical realists presume that a reality exists but that it cannot be

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\(^4\) The similarities between both old and new critical realist schools are canvassed in Verstegen (2000).

\(^5\) Contemporary Bhaskarian critical realists appear to fall into two broad categories, critical realists and the more recent, dialectical critical realists (see Brown 1999). The latter group probably sharing more in common with critical theorists than the former.

\(^6\) See the Journal of Critical Realism.
fully or perfectly apprehended (Guba 1990). The concept of reality embodied within critical realism thus extends beyond the self or consciousness, but is not wholly discoverable or knowable. Critical realism recognises that perceptions have plasticity (Churchland 1979) and there are differences between reality and people’s perceptions of reality. Rather than being value-free, as in positive research, or value-laden as in interpretive research (Lincoln & Guba 1985, p. 37), realism is instead value cognisant.

Both constructivists and critical realists reject logical positivism (Firestone 1990) and reflect disillusion with the objectivity and truth positions espoused by positivists. Critical realism is instead about generative mechanisms, which represent tendencies (Bhaskar 1978). The aim of critical realist research is thus the ‘identification and verification of underlying generative mechanisms’ or structures which give rise to actions and events which can be experienced in the empirical domain (Wollin 1996, p. 1). Consequently, generalisations derived from critical realist research concern a probabilistic truth, rather than absolute truth. Thus, critical realist research attempts to develop a family of answers which embrace multiple contexts and different participants (Pawson & Tilley 1997), recognising that ‘social phenomena by their nature are fragile, so that causal impacts are not fixed but contingent upon their environment’ (Healy & Perry 2000, p. 12).

3.2.4 Methodology & method

Within a critical realism framework, both qualitative and quantitative methodologies are seen as appropriate (Healy & Perry 2000) for researching the underlying mechanisms that drive actions and events. Both naturalistic methods such as case studies, and unstructured or semi-structured, depth interviews are acceptable and appropriate within the paradigm, as are statistical analyses which assist in modelling (Perry, Alizadeh & Riege 1997).

Conventionally, qualitative and quantitative methodologies are placed into the framework of a methodological dichotomy. While it is convenient to dichotomise them (Hammersley 1992), doing so ignores the possibility that the distinctions are likely best reflected along a continuum, as illustrated in Figure 3.1.
Figure 3.1 demonstrates that critical realism is a ‘middle-ground’ approach in terms of methodology, the roles of the individual and of context, the modified objectivist epistemological position, and use of both qualitative and quantitative methodologies.

A critical realist stance was appropriate for addressing the research question; offering the potential to investigate the economic and political reality of public sector outsourcing, as well as the role of managers’ perceptions in outsourcing decision making. Boland and Pondy (1983) suggest that such a melding of the natural and the rational are appropriate means for studying accounting in organisations. The blend of qualitative and quantitative research also marries well with the mix of economic (ie. TCE) and non-economic (ie. contingency theory) theoretical foundations of the research question. Rumelt, Schendel and Teece (1991, p. 27) summarise the position:

where organizational relationships turn on exchange and on individual incentives, various economic approaches will have much to say. Where the coordination and accumulation of knowledge is key, and where patterns of belief and attitude are important, other disciplines will have more to say.

Additional input for developing a strategy for answering the primary research question came from examining and reviewing the research methods applied in the existing literature (Chapter 2) on outsourcing.
The methods used in prior research can be divided into two broad categories: case, field or qualitative studies\(^7\); and survey or quantitative studies\(^8\).

There are several limitations of the research approaches that have been previously adopted. As noted in section 2.8.2, much of the quantitative survey research lacks research design integrity (e.g. by including rough 'guesstimates' of cost savings from outsourcing) and fails to report all statistical results (Hodge 1996, p. 14). Some of the qualitative research is also methodologically weak, with many case studies expressed in the form of brief, descriptive vignettes (see, for example, Goodwin 1991; Harrar 1993; Sweet 1994) rather than deep, exploratory narratives. There also appears to be a scarcity of research utilising archival data (for exceptions, see Ferris 1986; Hirsch 1995b; Cooley 1997), and individual or focus group interviews (for exceptions, see Graham & Scarborough 1995; Nesoff 1998).

While there is a wealth of material using case studies or mailed survey questionnaires, few researchers seem to have engaged in both types of research (for exceptions, see Domberger & Hall 1995; Domberger, Hall & Jeffries 1995; Nam 1995). Further, researchers do not seem to have attempted to reconcile the findings of one branch of studies with the other, nor combined both approaches in a single study to provide a comprehensive, integrated and triangulated view. Only a few examples of researchers utilising combined methodologies and methods were unearthed.\(^9\)

The apparent lack of use of multiple methods and general polarisation of the research literature into that which uses qualitative methods and that which uses quantitative methods provided further impetus for adopting a multiple methods approach, and for combining qualitative and quantitative methodologies.

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\(^9\) Examples of such rare combinations include; cases and interviews (Drew 1995), interviews and survey questionnaire (Useem & Harder 2000), survey questionnaire, document review and interviews (Shiang 1995), and archival study and survey (Hamilton 1997).
However, the principal driver for using a combined approach was the nature of the research question. Understanding a complex process such as outsourcing decision making demanded a qualitative investigation to identify and explore the key issues. The issues could then be addressed in other settings and contexts in the search for more broadly based associations and relationships. A combination of qualitative and quantitative methodologies was more likely to provide an elaborated view of the role of costs in public sector outsourcing decision-making than could be obtained utilising a single methodology.

3.2.5 Validity, reliability & generalisability
Just as critical realism is different to positivism and interpretivism, so too are the criteria for judging the validity of critical realism research. In order to gauge the validity of the research reported in this thesis, the means for making such an assessment need to be defined and addressed.

At the root of critical realism research are consensus and coherence theories of truth. Consensus theory asserts that an observation sentence is true when there is general group agreement (eg. in the community), while coherence theory asserts that an observation sentence is warrantable only if it is provable within a theory - truth is thus coherence within a system (Lincoln & Guba 1985). By way of contrast, positivism is based on the correspondence theory of truth asserting that if an observation sentence corresponds to, or is isomorphic compared to reality, then it is true. ‘Critical realism embraces a coherent account of the nature of nature, society, science, human agency and philosophy’ (Bhaskar 1989, p. 191). When alternative theories exist to explain an action or event, validity and theory acceptance is established by choosing the alternative which ‘allows us to construct a consistent and coherent account of our experience’ (Churchland 1979, p. 87). Ryan, Scapens and Theobald (1992, p. 16-18) comprehensively summarise the issues:

The most tenable position is that the statements we make about observations have coherence with reality if the actions or beliefs produced within independent individuals as a result of those statements are congruent with one another. This coherence/consensus theory of truth is particularly attractive as it contains the root of a very important principle in experimental science, namely that observational results depend for their veracity on their replicability ... the task of a good empirical scientist ... is to collect observational data and report on observational conditions in as reliable a way as technology will permit ... and to ensure that the observational conditions are accurately reported so that other scientists can replicate the results ... the position we have outlined is a very modest form of realism and it relies upon two concepts of coherence and consensus.
The research described in this thesis thus has its basis in replicability, coherence and consensus as the results obtained from applying both qualitative and quantitative methodologies can be judged on these bases. Coherence and consensus were established through the identification, observation and documentation of harmonious, emergent patterns and themes, and the consistent correspondence, or lack of correspondence, of these themes with underlying theories. These approaches differ from the more constrained and less detailed statistical generalisations produced by positivist approaches and also differ from those employed in more interpretive methods by which data must be rendered meaningful by reference to a sociological theory or ideological position.

For the research described in this thesis, several approaches were adopted to improve replicability, coherence and consensus. An element of replication, to demonstrate reliability, can be applied in just about any form of research study (Bordens & Abbott 1999). The successive steps adopted in the research and the ability to use multiple methods within the critical realist worldview provided the basis for replication on both theoretical and practical levels. Results produced in one stage of the research were subjected to further scrutiny in successive stages, as well as being compared to theoretical foundations. Often the results of case studies can be verified through a process of replication (Yin 1994). While only a single case study was conducted, the key outsourcing and costing aspects of that study were replicated through a series of depth interviews with managers from other organisations. These interviews were conducted to a consensus point by using an iterative process designed to improve convergent validity. A survey questionnaire, strongly focused on the main theoretical and practical costing and outsourcing issues was then administered to a broader sample of managers, further reinforcing approaches to establishing reliability and replicability. The reliability of the questionnaire was also tested statistically, as well as through pre-testing and piloting, and re-testing with case study managers and other managers, as detailed later in this chapter. Validity and generalisability of survey questionnaire results were also improved by ensuring representativeness in sampling and by testing for bias.

While replicability, coherence and consensus were the main criteria for judging the research there are other validity and generalisability issues concerning the methodology and methods that were used within the critical realist framework.
Positivists stress that reliability, validity, and generalisability form the cornerstones for judging research (Sarantakos 1993; Abernethy et al. 1999; Bordens & Abbott 1999). Reliability is usually assessed in terms of the stability of results generated through the application of some measurement instrument, such as a survey questionnaire. Validity includes the ability to test hypotheses adequately (internal validity) and the ability to extend the results obtained to wider settings (external validity).

In qualitative research settings, particularly those founded on a subjectivist epistemology, the concepts of reliability and validity are interpreted somewhat differently. Reliability will often not be capable of testing via the use of inferential statistics; rather, replicability becomes a key measure of reliability (Bordens & Abbott 1999). Generalisability, in the statistical sense, is not usually applied, although theoretical generalisation is normally of importance. Qualitative research therefore tends to use 'substitute' validity and reliability criteria including trustworthiness, credibility, transferability, dependability, and confirmability (Lincoln & Guba 1985, p. 43; Yin 1994, p. 32).

Whether apparent or substitute, the tests most commonly applied to empirical research, either quantitative or qualitative, relate to construct, external and internal validities and reliability (Yin 1994). While internal and external validity are important in critical realist research (Denzin & Lincoln 1998), there are other factors to be considered. Because realists criticise the basic tenets of positivism:

> these criticisms pose a major problem for issues such as how to judge the validity of the research and how to decide when to accept one theory in place of another (Smith, J. K., 1990, p. 170).

The common criteria for establishing the validity of critical realist research include criticality and critical multiplicity (Bhaskar 1989; Guba 1990), trustworthiness, and analytical generalisation (Healy & Perry 2000).

### 3.2.6 Criticality & critical multiplicity

Critical realism is critical in the sense that it recognises that the researcher, being distinct from what is researched, must apply criteria to assess theory and acknowledge that data collected is value laden or theory laden (ie value consciousness). Criticality also requires a degree of scepticism on the part of the researcher and willingness to
attempt to discredit or falsify prior theory or claims made about the research topic area. In particular, the current research sought to both assess the usefulness of existing theories of outsourcing as well as to test the veracity of claims previously made about the cost savings generated by outsourcing.

Critical multiplism is the means for unearthing the generative mechanisms which underlie reality, beyond individuals' perceptions of reality, and is akin to triangulation. Triangulation is reflected in the use of both quantitative and qualitative methods within critical realist ontology, and the building of theory through multiple data sources and multiple methods. There are a number of approaches to triangulation and those used in the current research are detailed in section 3.12.

3.2.7 Trustworthiness & auditability

In addition to triangulation, trustworthiness is a further means for establishing or improving the validity of research conducted within a critical realist framework. The concept of trustworthiness is grounded in auditability (Lincoln & Guba 1985); the extent to which the research can be audited by virtue of the databases maintained and the use of quotations in written research reports (Healy & Perry 2000).

For both the qualitative and quantitative components of the research, thorough documentation of data collection and analysis methods promoted both reliability and replicability. Definitions of constructs and variables, data collection plans and protocols, and recording and coding schema were developed prior to entering the field in order to systematise observations, interviews and document review. Documentation was also maintained following data collection to enable auditability, and thereby promote validity and reliability. Such auditability is one of the hallmarks of science and promotes rigour in data collection and analysis. It also provides for replication.

3.2.8 Analytical generalisation & replication

While auditability can enable external replication of research, the criterion of analytical generalisation facilitates within-study replication. Analytical generalisation involves the generalisation of a set of results from a case or cases to a broader theory (Yin 1994, p. 36). In other words, theory can be applied to a case in order to explain the specific case, rather than to produce universal generalisations (Ryan, Scapens & Theobald 1992). This analytical generalisation is often iterative or replicated, where an initial
comparison between results and theory is made, followed by further cases, the results of which are compared with theory, the theory modified, and so on (Wollin 1996). This is precisely the approach that was adopted in the current research. Application of quantitative methods in later components of the research program provided a further measure of rigour in theory building, testing and analytical generalisation derived from the case and other qualitative approaches (Wollin 1996). Inclusion of quantitative methods also added to convergence and consensus positions established through the qualitative methods, reinforcing reliability and replicability. This combined methodology, applied to both the collection and analysis of data, is reflected in the specific research methods that were chosen for use.

3.3 Research design

The research presented in this thesis is comprised of both exploratory and explanatory components, utilising qualitative and quantitative methodologies. The approach adopted is one of a generative research strategy (Simon 1990, 1994). The narrative literature review revealed research questions, and combined with the qualitative aspects of the proposed methodology, yielded testable propositions. The generative strategy initially uses less formal techniques (content analysis, informal interviews, and literature reviews) on the target population, in order to capture the nature of crucial research issues. The issues and themes are then developed and expanded through more formal methods such as interviews and survey questionnaires. Following the review of literature and content analysis of selected works (presented in Chapter 2) the research consisted of three major components:

- a case study of a number of outsourcing decisions in a single public sector organisation;
- a series of individual depth interviews with managers from a variety of public sector organisations; and,
- a large-scale survey questionnaire of a broad range of public sector organisations.

Figure 3.2 presents a diagram of the overall plan of the research and illustrates the flow from one component to another.
The purpose of the literature review and content analysis was to collect and analyse archival data in order to build a model of the role and relative importance of costs and costing methods in public sector outsourcing decisions. The ensuing case study and interviews provided the means for examining the model in real-world contexts and allowed for modification of that model. Following these stages in model development, the survey questionnaire was aimed at applying and further revising the modified model, and testing the validity of particular facets of the underlying agency, TCE and contingency perspectives.
3.3.1 Design justification

The research design adopted links qualitative and quantitative data, moving from less controlled to more controlled methods, and through natural to less natural settings, representing an articulation or triangulation of methods (Fielding & Fielding 1986). This serves to lend weight to the data gathered, and is regarded by some researchers as the most appropriate way to conduct a research project among human subjects (Bryman 1988; Denzin 1989). The relative merits and shortcomings of each of the methods used, based on a number of different dimensions, are summarised in Table 3.1.

**Table 3.1 Dimensions of research design components**

<table>
<thead>
<tr>
<th>Dimension of Comparison</th>
<th>Narrative Review of Literature</th>
<th>Content Analysis</th>
<th>Case Study</th>
<th>Individual Face-to-Face Interviews</th>
<th>Individual Phone Interviews</th>
<th>Postal &amp; Email Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary purpose</strong></td>
<td>Exploration</td>
<td>Exploration</td>
<td>Exploration</td>
<td>Explanation</td>
<td>Exploration</td>
<td>Explanation</td>
</tr>
<tr>
<td>Naturalness</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Mod</td>
<td>Mod</td>
<td>Low</td>
</tr>
<tr>
<td>Cost</td>
<td>Low-mod</td>
<td>Low</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Data quality:</td>
<td>Low</td>
<td>Low-mod</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Respondent motivation</td>
<td>N/A</td>
<td>N/A</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Investigator bias</td>
<td>N/A</td>
<td>N/A</td>
<td>Mod-high</td>
<td>Mod</td>
<td>Low</td>
<td>Low-postal</td>
</tr>
<tr>
<td>Immediacy of response</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>High-email</td>
</tr>
<tr>
<td>Evaluation apprehension</td>
<td>N/A</td>
<td>N/A</td>
<td>Mod</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Richness of data</td>
<td>Mod</td>
<td>Mod</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Ability to clarify &amp;</td>
<td>None</td>
<td>None</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>probe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Validity:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construct</td>
<td>Low-mod</td>
<td>Low-mod</td>
<td>Low-high</td>
<td>Low-high</td>
<td>Low-high</td>
<td>Low</td>
</tr>
<tr>
<td>Internal</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
<td>Mod</td>
<td>Low-mod</td>
<td>Low</td>
</tr>
<tr>
<td>External</td>
<td>High</td>
<td>High</td>
<td>Low-mod</td>
<td>Mod</td>
<td>Mod</td>
<td>Mod-high</td>
</tr>
<tr>
<td>Sampling flexibility</td>
<td>High</td>
<td>High</td>
<td>Low-mod</td>
<td>Mod</td>
<td>Mod</td>
<td>High</td>
</tr>
<tr>
<td>Study length</td>
<td>High</td>
<td>High</td>
<td>Low-mod</td>
<td>Mod</td>
<td>Mod</td>
<td>High</td>
</tr>
<tr>
<td>Availability to use visual aids</td>
<td>N/A</td>
<td>N/A</td>
<td>High</td>
<td>None</td>
<td>None</td>
<td>Low</td>
</tr>
<tr>
<td>Anonymity</td>
<td>N/A</td>
<td>N/A</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>High</td>
</tr>
<tr>
<td>Sample parameters</td>
<td>Large</td>
<td>Large</td>
<td>Small</td>
<td>Small</td>
<td>Small</td>
<td>Large</td>
</tr>
<tr>
<td>Dependence on</td>
<td>N/A</td>
<td>N/A</td>
<td>Minor</td>
<td>None</td>
<td>None</td>
<td>High</td>
</tr>
<tr>
<td>respondent’s reading &amp;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>writing abilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control of context &amp;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>question order</td>
<td>N/A</td>
<td>N/A</td>
<td>High</td>
<td>Mod-high</td>
<td>High</td>
<td>None</td>
</tr>
</tbody>
</table>


KEY: Mod = Moderate  N/A = Not applicable

*Table 3.1* shows that collectively, the research methods chosen were aimed at maximising reliability and validity, as well as providing a basis for establishing coherence and consensus in results and findings. Such use of archival studies, depth interviews, and mailed questionnaires, is a strategy for ‘attack[ing] a research problem with an arsenal of methods that have nonoverlapping weaknesses in addition to their
complementary strengths’ (Brewer & Hunter 1989, p. 17). The steps taken produced a chain of evidence, formed a backdrop to the relations observed between variables, provided greater assurance that threats to the validity of the analyses had been counteracted, and allowed greater confidence to be placed upon the research results (Judd, Smith & Kidder 1991; Brownell 1995).

3.4 Case study

The first major component of the research design was a case study which involved studying a case (an organisation) in its natural setting, over a period of time (1997-2000), employing a variety of data collection and analysis methods (Sarantakos 1993). Booth (1995b, pp. 74-75), drawing upon the work of Mitchell (1983) and Yin (1989), summarises the key attributes of the case study approach, and suggests that a case study should:

- investigate a contemporary phenomenon;
- examine a phenomenon of theoretical significance;
- involve detailed examination of a phenomenon within its real-life context;
- recognise that a phenomenon is embedded within its context;
- involve a longitudinal analysis in the examination of the phenomenon and its context; and,
- make use of multiple sources of data.

The case study conducted adheres to each of these recommendations. Public sector outsourcing, increasingly popular in the late twentieth century (Langfield-Smith, Smith & Stringer 2000), is very much a contemporary phenomenon. It is also an issue of theoretical significance, as discussed in Chapter 2, with numerous, often competing models and theories having been developed in efforts to describe and explain outsourcing decision-making. The role of costs in public sector outsourcing decision making is examined, via the case study component of the research, in its real-life context within an Australian public sector organisation. The outsourcing experiences of this organisation are embedded within both the organisational and broader environmental contexts. The case study, conducted over a period of years (1997-2000), and covering analysis of outsourcing contracts stretching back several years, provided opportunity for longitudinal analysis, including data obtained from multiple sources such as documents, interviews, and observation.

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10 As reported in section 3.4.3, the case study research commenced when Ethics Approval was obtained in 1997, and concluded when senior management of the case organisation validated the case write-up in late 2000.
3.4.1 Purpose

The purpose of the case study was to:

- map public sector outsourcing decision processes, the costing information used and the costing problems encountered in providing relevant and reliable information to support outsourcing decisions;
- assess the capacity of decision theories, agency theory and TCE to explain the outsourcing decision making of the case organisation;
- provide information for the refinement of the multi-theoretical model of public sector outsourcing presented in Chapter 2;
- provide information to assist in clarifying or answering the research propositions; and finally,
- generate information useful for conducting the subsequent steps in the research.

3.4.2 Justification

The case study aimed to capture the richness and organisational context of the public sector outsourcing decision-making process and is also justified on a number of other grounds. For example, there have been widespread calls for the use of case and field methods for studying management accounting practice (see, Hopwood 1983; Kaplan 1984, 1986, 1993; Covaleski & Aiken 1986; Johnson & Kaplan 1987; Scapens 1990; Young 1999). In response to these calls, the case method is increasingly utilised in research of not-for-profit and public sector organisations (see, for example, Anderson & Drennan 1993; Booth 1995b; Ernst & Glanville 1995). In several large-scale surveys of public sector accounting, privatisation and outsourcing, the authors have concluded that case studies would have provided better data, and a richer understanding of both context and variables (see, Chandler & Feuille 1991, p. 20; Gurd 1993, p. 34).

Horngren (1989, p. 24) provides an appropriate summary of the aims of and means for conducting a case study relevant to the primary research question posed in this thesis:

Kaplan has criticized the state of management and cost accounting ... He has urged researchers to conduct more cases ... The recent research in agency theory and organizational behaviour implies a way of conducting such studies. I would welcome the following application of an “information economics” or “cost benefit” theme. Begin with the hypothesis that accounting practices commonly observed are consistent with equilibrium behaviour. Then explore why a “better” model or practice is not used. If enough case studies are conducted, we will probably better understand the role of accounting in organizations (Horngren 1989, p. 24).

The case and interview research presented in this thesis adopt the theoretical perspectives, aims, topics, and method suggested by Horngren as being important in enriching understanding of accounting and the context within which it occurs. The research determines which costs and costing methods are used in outsourcing decision-
making, and then examines and offers reasons for why other, more appropriate costing methods are not used in practice.

Justification for the case study approach can also be found in the agency theory, TCE, and contingency theory literature. The need for richer environments in which to apply agency theory and TCE is recognised by researchers (see, for example, DeJong, Forsythe & Uecker 1985; Wruck & Jensen 1994; Shelanski & Klein 1995). In discussing the prospects for agency theory and TCE research in management accounting, Baiman (1990, p. 367) suggests that:

co-ordinating principal-agent and field-based research could result in benefits to both areas. First, applying the principal-agent paradigm to the research question underlying the field study would sharpen the focus of the field study. Second, using the results of field studies could sharpen our principal-agent models.

Case studies and field methods have also been used by accounting researchers in studying a number of variables important in the contingency theory of organisation structure (see, for example, Covaleski & Dirsmith 1986; Merchant & Manzoni 1989; Merchant 1990).

### 3.4.3 Case selection

Following the replicability/consensus criteria set for the research, it was appropriate to study more than one case. The number of cases, or optimal sample size for case-based research, has been frequently debated in the literature. However, Patton (1990) suggests that information richness, rather than sample size, is the key in choosing cases for study. Wollin (1996, p. 1) concurs, stating that:

For each case, existing theory is sequentially compared with the case data and modified or replaced with theory generated from the case analysis. Emerging theory is compared and modified, if needed, with earlier cases. The process is repeated on additional theory-rich cases until there is substantial agreement between all cases and emerging theory.

Thus, 'theoretical saturation' (Strauss 1987), should govern the number of cases to be investigated. In selecting the appropriate number of cases the unit/s of analysis were of critical importance since a case can consist of an organisation, a sub-section of an organisation, or individual units of analysis within an organisation (Miles & Huberman 1994). The TCE rationale is that transactions (eg. individual outsourcing contracts) are the basic units of analysis (Williamson 1975, 1991c).
The case research described in this thesis focused on thirteen outsourcing contracts, decision and activities as units of analysis, in a single organisation. This design is described as a single case study with embedded multiple units of analysis (Yin 1994). As the case study is only one component of the overall research, analysis of multiple decisions within a single case organisation met the purpose and aims set for this aspect of the research (see section 3.4.1). The validity of the case findings within the broader public sector community was then tested through a selected interview program in other organisations, and this series of interviews supplemented the single case. Results were also validated in a broader context through later, larger-scale, survey questionnaire research.

The choice of organisation for the case study was informed by two considerations. The first is the relative state of neglect of public sector outsourcing research at the State and Federal government levels, compared to the local level (see section 2.8). Consequently, the organisation studied was not drawn from local government. Secondly, the notion that public sector outsourcing may have more broad-reaching effects on regional economies and communities (see sections 1.3.3 & 2.7.2) dictated that the chosen organisation should be drawn from outside a metropolitan area.

As only one case was conducted, the case selected needed to conform to the requirements of theoretical and contextual richness. The criteria for selecting an information rich case, divined from the review of literature presented in Chapter 2, were defined as a public sector organisation which:

- is making and has made important outsourcing decisions;
- is considering engaging in further outsourcing;
- has had both successful and unsuccessful outsourcing experiences; and,
- faces a variety of problems and prospects which affect its outsourcing activities.

Practical considerations, such as the organisation being of manageable size, so that all key personnel could be interviewed, and appropriate site visits made, were also important in case selection.

In late 1997 approval from Charles Sturt University’s Ethics in Human Research Committee was obtained for the case study and other relevant aspects of the research (see Appendix 7). Consent to study the case organisation was granted by senior
management of the organisation and key managers also provided individual consent (see Appendices 8 & 9).

Post analysis, incumbents of the key managerial roles within the case organisation reviewed and concurred with the reasonableness of the findings, and conclusions presented in this thesis and executive management of the case organisation approved the final case write-up in late 2000.

3.4.4 Data collection & analysis techniques
Given that the research is partially based upon pre-existing, multivariate, explanatory, and possibly rival theories, the nature of some data gathering was predetermined. Yin (1993, pp. 20-21) describes a case study he conducted (Yin & Moore 1988) which shares many similarities with the case study presented in this thesis. His description provides an apt summary of some of the data collection and analysis methods, as well as aims of the research:

> The case study protocol, tightly geared to testing the three theories, assured that the diverse data collection would involve converging lines of inquiry and triangulation of evidence. A key aspect of the theories were their complexity. This permitted a pattern-matching ... as the main analytical tactic ... Without the theories or their complexity, data collection might have been undisciplined and pattern-matching impossible.

Following Yin’s (1993) exemplar (above), the case research component required the development of a case study protocol and a small amount of instrumentation prior to entering the field. Table 3.2 summarises the key decision factors on the need for prior instrumentation.

**Table 3.2 Prior Instrumentation: Key decision factors**

<table>
<thead>
<tr>
<th>Little prior instrumentation</th>
<th>Lot of prior instrumentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Rich contextual description necessary</td>
<td>• Context less crucial</td>
</tr>
<tr>
<td>• Concepts inductively grounded in local meanings</td>
<td>• Concepts defined ahead by researcher</td>
</tr>
<tr>
<td>• Exploratory, inductive</td>
<td>• Confirmatory, theory-driven</td>
</tr>
<tr>
<td>• Descriptive intent</td>
<td>• Explanatory intent</td>
</tr>
<tr>
<td>• “Basic” research emphasis</td>
<td>• Applied, evaluation, or policy emphasis</td>
</tr>
<tr>
<td>• Single case</td>
<td>• Multiple cases</td>
</tr>
<tr>
<td>• Comparability not too important</td>
<td>• Comparability important</td>
</tr>
<tr>
<td>• Simple, manageable, single-level case</td>
<td>• Complex, multilevel, overloading case</td>
</tr>
<tr>
<td>• Generalising not a concern</td>
<td>• Generalising/representativeness important</td>
</tr>
<tr>
<td>• Need to avoid researcher impact</td>
<td>• Researcher impact of less concern</td>
</tr>
<tr>
<td>• Qualitative only, free-standing study</td>
<td>• Multimethod study</td>
</tr>
</tbody>
</table>

*Adapted from: Miles & Huberman (1994), p. 36.*
The type of case study conducted as part of the thesis research possessed characteristics most akin to those presented in the left-hand column of Table 3.2. Although the case was theory-driven, and one part of a multiple methods study, the purposes were to explore and describe outsourcing decision making and the use of costs in these decisions in a rich, contextual environment. The case assisted in inductively generating an improved model or framework of public sector outsourcing decision-making and both the case and the later depth interviews of managers from other organisations provided opportunities to clarify and reduce the set of variables in the conceptual base.

In the case organisation, data were collected from various sources using a number of techniques. Techniques employed included oral histories (interviews with personnel of the case study organisation), observation, and review of documents, with field notes kept manually and on computer. Table 3.3 presents a summary of the relative strengths and weaknesses of each of the data collection methods applied to the case study.

**Table 3.3 Case study sources of evidence: Strengths & weaknesses**

<table>
<thead>
<tr>
<th>Source of evidence</th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation</td>
<td>• stable - can be reviewed repeatedly</td>
<td>• retrievability - can be low</td>
</tr>
<tr>
<td></td>
<td>• unobtrusive - not created as a result of the case study</td>
<td>• biased selectivity if collection is incomplete</td>
</tr>
<tr>
<td></td>
<td>• exact - contains exact names, references and details of an event</td>
<td>• reporting bias - reflects (unknown)</td>
</tr>
<tr>
<td></td>
<td>• broad coverage - long span of time, many events, and many settings</td>
<td>• bias of author</td>
</tr>
<tr>
<td>Archival records</td>
<td>• <em>same as for documentation</em></td>
<td>• <em>same as for documentation</em></td>
</tr>
<tr>
<td></td>
<td>• precise and quantitative</td>
<td>• accessibility due to privacy reasons</td>
</tr>
<tr>
<td>Interviews</td>
<td>• targeted - focuses directly on case study topic</td>
<td>• bias due to poorly constructed questions</td>
</tr>
<tr>
<td></td>
<td>• insightful - provides perceived causal inferences</td>
<td>• response bias</td>
</tr>
<tr>
<td>Observation (as participant)</td>
<td>• reality – covers events in real time</td>
<td>• inaccuracies due to poor recall</td>
</tr>
<tr>
<td></td>
<td>• contextual - covers context of event</td>
<td>• reflexivity – interviewee gives what interviewee wants to hear</td>
</tr>
<tr>
<td></td>
<td>• insightful into interpersonal behaviour and motivations</td>
<td>• time-consuming</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• selectivity – unless broad coverage</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• reflexivity - event may proceed differently because it is being observed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• cost - hours needed by human observers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• observer bias</td>
</tr>
</tbody>
</table>


Table 3.3 shows that the multiple data collection methods employed in studying the case generally had non-overlapping weaknesses. For example, the exactitude offered by physical documentation provided a means for overcoming some of the inaccuracies in
the recall of interviewees. Similarly, any biases which document authors may have had, were reduced by interviewing a broad range of organisation managers. By choosing methods with non-overlapping weaknesses threats to validity and reliability were lessened. *Table 3.4* summarises the main validity and reliability issues of case analysis and details the design tactics appropriate for maximising validity and reliability.

**Table 3.4 Case study tactics for four design tests**

<table>
<thead>
<tr>
<th>Tests</th>
<th>Case study tactic</th>
<th>Phase of research in which tactic occurs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construct validity</strong></td>
<td>- use multiple sources of evidence</td>
<td>Data collection</td>
</tr>
<tr>
<td></td>
<td>- establish chain of evidence</td>
<td>Data collection</td>
</tr>
<tr>
<td></td>
<td>- have key informants review draft case report</td>
<td>Composition</td>
</tr>
<tr>
<td><strong>Internal validity</strong></td>
<td>- do pattern-matching</td>
<td>Data analysis</td>
</tr>
<tr>
<td></td>
<td>- do explanation-building</td>
<td>Data analysis</td>
</tr>
<tr>
<td></td>
<td>- do time-series analysis</td>
<td>Data analysis</td>
</tr>
<tr>
<td><strong>External validity</strong></td>
<td>- use replication analysis in multiple-case studies</td>
<td>Research design</td>
</tr>
<tr>
<td><strong>Reliability</strong></td>
<td>- use case study protocol</td>
<td>Data collection</td>
</tr>
<tr>
<td></td>
<td>- develop case study data base</td>
<td>Data collection</td>
</tr>
</tbody>
</table>


As previously discussed, multiple sources of data were used and a protocol developed to improve reliability. A database of case information was maintained, and pattern-matching, protocol analysis and time series techniques applied, together with review of the case write-up by senior management of the case organisation. Write-up of the case was based on the principles of literary authority; authenticity, plausibility and criticality (Golden-Biddle & Locke 1993) suggested as appropriate for field research in management accounting (Baxter & Chua 1999), and which conform to the critical and trustworthiness criteria of the realist paradigm.

In general, the case was analysed by searching for and elaborating on various themes, and comparing these emergent themes with the multi-theoretical model developed from the literature. The organisation’s objectives and external and internal environments were analysed, the costing system assessed, and each planned and actual outsourcing activity examined.
Consistent with the agency theory Information Evaluator-Decision Maker (IE-DM) framework\textsuperscript{11} discussed in Chapter 2, case interviewees selected were both information evaluators (finance staff and managers) and decision makers (executive and middle managers). Those interviewed thus included individuals responsible for sourcing, costing, implementing and monitoring the organisation’s outsourcing activity, as well as final decision-makers, providing a comprehensive picture of the outsourcing process. In all, twelve managers and staff were individually interviewed and the General Manager and Executive Managers formally reinterviewed on several occasions. Interviews ranged in duration from forty-five minutes to two or more hours. Generally, individual, non-standardised, scheduled, depth interviews were conducted. The interviews were semi-structured and became more formal and followed a more rigid protocol in later stages as more became known about the organisation. Some managers and other personnel were also interviewed on a group basis.

A major limitation of the interview component of the case research was that it only yielded information about the perceptions of information evaluators and decision-makers. Observation and document review were therefore necessary as corroboration to ensure that underlying structures and mechanisms were accurately identified.

Observation in the case organisation was semi-structured and direct, through field visits to the case study sites. Observations were made of corporate meetings, staff interaction and discussions, and of customers/consumers. In the observer as participant mode, the researcher and the purpose of their research were made known to personnel within the organisation. Booth (1995b) adopted the observer as participant role in his case study of management control, noting that this was the most ethical and practical role to assume in the circumstances. Brownell (1995) contends that adopting an observer as participant role is also more likely to introduce fewer threats to validity, and to increase reliability. In addition to these observations, inspection was made of infrastructure and amenities at the organisation’s main site of operations, and observations made of staff and service facilities in areas planned for outsourcing in future.

\textsuperscript{11} The framework suggests that the accountant can be viewed as an information evaluator (IE) who chooses among alternative information systems whose signals will be used by a decision maker (DM) in selecting actions (Uecker, Schepanski & Shin 1985).
The document review, which involved a latent form of content analysis, helped in establishing data convergence. The key internal documents produced when outsourcing included the feasibility study, service definition, service level agreement (contract), transition plan, and review procedures (Rothery & Robertson 1995). Where existent and available, these documents were reviewed, together with print and on-line public documents, such as annual reports and publicity materials, and internal accounting data and management reports. Also necessary was the review of secondary documents (e.g. newspaper reports and external research and consultancy reports) concerning the case organisation, since these had potential to be useful in providing 'an independent assessment of data obtained from official documents' (Booth 1995b, p. 89).

Multiple analytical strategies were applied. Interview data were organised, coded and analysed. As with the later steps in the research design, protocol analysis and pattern matching techniques were used to inform, support and explain the case study. The techniques provided greater insight into the phenomenon of interest, and of the theories purporting to explain it, as well as providing a basis for testing the theories.

Protocol analysis is a useful technique for application to decision-making studies in accounting (Bouwman 1985), and was used in the current research to organise verbal data into topics for coding. Recurring codes or patterns were then used to sketch out models of decision-making processes. Pattern matching was then applied to assess how closely the (observed) facts fit the theory (Yin 1994), and to determine which of the rival theories (e.g. TCE and contingency theory) appeared to be the most appropriate.

In addition to using multiple data collection and analysis techniques to enhance consistency and search for convergence in the data, key managers within the organisation were asked to check the case write-up, as a form of respondent validation.

3.4.5 Strengths & weaknesses
As detailed earlier in Table 3.1, case studies generally rank well in terms of internal validity, but poorly on external validity. Many of the usual threats to external validity were minimised by adopting the multi-method approach, described in Table 3.1. Unlike one-shot cross-sectional survey methods, the case allowed for longitudinal analysis. A potential shortcoming of the case was that researcher bias in both data collection and
interpretation could pose a threat to validity. However, the use of multiple sources of data minimised this threat (Birnberg, Shields & Young 1990).

3.5 Individual depth interviews
Apart from the interviews conducted with managers in the case organisation, individuals from a variety of other public sector organisations were interviewed as a separate, although complementary component of the research.

3.5.1 Purpose
Given that a single case organisation was selected in this research, it was necessary to consider how a range of other organisations, at different levels of government, of different organisational types and sizes, and in different industries used costs and costing information in outsourcing decisions. Thus the depth interviews were designed to develop deeper and broader perspectives on the issues, capture issues which may not have been evident in the case study organisation, provide for replication, and improve the external validity of the model emerging from the earlier case study. The emphasis in the interviews was on organisational outsourcing activity and practices, as well as managers' attitudes and perceptions related to outsourcing. The interviews enhanced the theoretical framework of the research and also provided information useful for the preparation of the survey questionnaire.

3.5.2 Justification
While the case study analysis was conducted with a view to providing rich data about costing for outsourcing decisions, the capacity to generalise the case findings to the wider population of public sector organisations was limited. The case organisation possesses its own inherent advantages and limitations, and operates within its own unique environment. The extent to which it possesses attributes in common with other public sector organisations would therefore remain largely unknown if a wider sample were not considered. The interviews with managers from a range of public sector organisations thus provided a broader perspective on the research questions.

3.5.3 Sampling strategy
Interviews are commonly used in business research (see Davis & Cosenza 1988) and for the current research, intensive and semi-structured, direct interviews were conducted. For the most part, interviews were face-to-face (60%), although several telephone
interviews (40%) were necessary because of the geographical dispersion of interviewees.

A purposive, maximum variation sampling strategy was applied for selecting participants. Patton (1990) suggests this strategy yields a heterogenous sample that provides a basis for observing commonalities in participants' experiences. The heterogeneity of the sample and the potential for exploring commonalities suited the replicability, coherence and consensus criteria set for validating the research results and findings. The interview sample included participants from organisations of each major type, at different levels of government, of various sizes, and from a variety of industries and locations. The sample is however biased in favour of organisations located in New South Wales (NSW), primarily due to ease of access to participants for face-to-face interviewing.

Fifteen interviews provided adequate opportunity for competing attitudes and beliefs to become apparent, and for identifying common threads and themes. Adopting a consensus theory approach, five interviewees were selected for each organisation type. The approach provided both an appropriate level of consensus among interviewees, and a high degree of theoretical saturation.

3.5.4 Data collection & analysis techniques

During 1998-1999, a series of fifteen depth interviews was conducted with managers from a range of public sector organisations.12 Those identified for interview had primary roles in outsourcing decision-making, although not all participants were Chief Financial Officers (CFOs). Certainly in some organisations there were no finance staff at all, and so General Managers (GMs), Chief Executive Officers (CEOs), or managers with significant contracting experience were selected instead.

Nine (60%) of the interviews were conducted face-to-face and six (40%) via telephone. Nine of the fifteen (60%) interviewees agreed to audiotaping of the interrogative, including two interviewed by telephone and seven in the face-to-face mode. The interviews ranged in duration from thirty-five minutes, to one-hour, forty-five minutes, with the average interview lasting for approximately one hour.

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12 Being five managers from organisations of each of the three basic types: local governments, self-funded organisations, and budget-funded organisation.
Notes were made during all interviews; verbatim transcripts of audiotaped interviews prepared and summaries developed utilising a computer database.

Data were analysed qualitatively according to predominant themes, and these themes, which originally emerged from analysis of the case study, also formed the basis of numerous questions asked of interview participants. Unlike the case study, which involved an assessment of all individual outsourcing contracts and activities of the organisation, the interviews were more targeted and more specifically linked to the key themes and to the research propositions. Guiding interview questions and prompts, forming part of the instrumentation, appear in Appendix 2. Apart from verbal prompts and questions, interview participants were also provided with visual cues for responding to questions on certain issues (see Questions 19 & 22 in Appendix 2). Telephone interviewees were faxed or e-mailed relevant visual materials prior to interview.

Generally, response modes for the interviews were unstructured, allowing interviewees to respond as they chose. No attempt was made to develop an a priori coding scheme for responses. Rather, responses were coded after the fact as patterns in the data emerged. Interview data were qualitatively analysed by examining responses thematically through pattern matching. Cross-interview analysis relating to each of the main research propositions was undertaken after completion of all individual interviews.

3.5.5 Strengths & weaknesses

Interviews possess similar strengths and weaknesses to case studies, as previously outlined in Table 3.1. Telephone interviews generally have the same advantages and disadvantages as other interview techniques, with the exceptions detailed in Table 3.1. A potential weakness of the interviews was the use of only one informant per organisation. Abernethy et al. (1999) have criticised such an interview strategy, but point out that where interviews are one step in the collection of data and where there is a pre-existing underlying theoretical framework, the use of a single informant per organisation is not as problematic. Since the interviews were only one stage of the multi-method study and as there was a strong theoretical base for the research, the use of one informant per organisation is unlikely to have serious reliability implications. As with all interviews, investigator bias and reactivity effects present possible threats to validity. However, the final component of the research design – a survey questionnaire, was far less prone to such biases and effects.
3.6 Survey questionnaire: Introduction

3.6.1 Purpose

Surveys are opinion-based research concerning the attitudes, beliefs and perceptions of respondents. Within the context of this study, it is precisely these beliefs and opinions which are of value. This is particularly so if decision-makers are believed to be boundedly rational, and if accounting information is thought to be used politically and to have behavioural consequences.

The purposes of the survey, the final stage in the research, were to test the propositions and associated hypotheses derived from the literature, and to assess the validity and generalisability of the modified theoretical framework that emerged following the case study and depth interviews.

3.6.2 Justification

The ontological and epistemological perspective of the research called for a holistic, multi-methods approach to data gathering and analysis. The sequence of logical steps in the research design culminated with the testing and search for broad-based applicability of findings that could only be achieved by larger-scale survey research.

Both the case analysis of a single public sector organisation and the depth interviews with public sector managers from other organisations were expected to provide high quality data with moderate to high internal validity. While both techniques provided rich data, neither was likely to produce the broader externally valid data necessary to aid policymakers and public sector managers in making appropriate outsourcing decisions and appreciating the role of costing information in the decision process.

Data gathered from the survey questionnaire was also needed to test theory; both the theoretical model developed from prior steps in the research, and the underlying agency, TCE and contingency theory perspectives. Broad-based results and findings obtained from analysis of survey data were also important for comparison with the results and findings of previous studies of outsourcing in the public sector, and particularly for assessment of the prior research results on cost savings through outsourcing.
3.6.3 Sampling strategy

The sampling strategy adopted was aimed at drawing a representative, random sample from the entire population of public sector organisations and from each of the three sub-populations relating to organisation type. The principal steps in this strategy, were:

- development of population databases;
- choice of key respondent to the questionnaire;
- establishment of appropriate sample size (overall) and for each organisation type (sub-sample);
- determination of methods for distributing the survey questionnaire;
- selection of appropriate follow-up techniques to improve response rate; and,
- testing for non-response bias.

3.6.4 Population databases & questionnaire recipients

Three comprehensive population databases were developed for the purpose of selecting three random samples from each of the organisation type sub-populations. Information for compiling the databases was derived from current print-based and on-line government directories (eg. ACT Government Departments 1999; Commonwealth Government Entry Point 1999; National Guide to Government 1988-2000). Address information was obtained from these directories and from the Australian Phonedisk CD-ROM. The three primary databases were:

- Database 1 - Commonwealth government level.
- Database 2 – State/Territory government level.
- Database 3 – Local government level.

Included in Database 1 were Commonwealth departments and agencies operating in the Federal Capital, each State, and the Northern Territory (NT). The organisations comprising Databases 1 and 2 also included the separately identifiable and autonomous, or semi-autonomous, sub-units of departments and agencies (as discussed in section 1.8), consistent with documented evidence showing many departments consist of such devolved, self-managing authorities (see, for example, Robertson 2000, p. 44). Organisations in the local government database (Database 3) included councils from each State, and the NT. The ACT was excluded, as it does not have local government bodies equivalent to those in other states.

The Commonwealth and State/Territory government databases (Databases 1 and 2) were divided into self-funded and budget-funded organisation types. However, the separation of organisations by type was troublesome for the self-funded group, since government directories provide neither full nor separate listings of such organisations
and direct inquiries of governments yielded little useful information. As a result, the sample of self-funded organisations duly selected may not be fully representative of the entire population of these organisations. This may therefore impose some restrictions on the generalisability of the results for these organisations.

Huber and Power (1985) stress that where researchers collect their data from a single informant per organisation, the person most knowledgeable about the issues of interest needs to be selected. Chief Financial Officers (CFOs) were therefore chosen as respondents for the outsourcing survey questionnaire because:

1. they are likely to have sophisticated knowledge about their public sector organisation’s costing systems (Morphett, 1998); and,
2. are also likely to be actively involved in decision making, at the centre of strategic activity, and occupying business advisory roles within organisations (Siegel, quoted in Charter 2000, p. 39; see also Gregg 2000).

3.6.5 Sample size
There are several considerations important in determining sample size (Bright 1991, pp. 46-47) which include:

- *representativeness* – generally the larger the sample, the more representative it is likely to be of the population;
- *population size* – with larger populations it is usually not feasible to sample the entire population;
- *nature of the study* – larger samples are generally necessary if quantitative analysis of data is to be conducted;
- *method used* – a mailed questionnaire is more easily distributed and can reach more individuals than would normally be possible using interview surveys; and,
- *type of data and data processing* – for the purposes of quantitative analysis and to appropriately use inferential statistics, very small samples are inadequate.

The key criterion in determining an appropriate size for the sample was representativeness. As differences between organisations, based on type and level of government were hypothesised (ie. the overall population is heterogenous), larger rather than smaller samples appeared justified. Statistically derived sample size tables were used in determining the appropriate sample size.

Krejcie and Morgan’s (1970) table relates selection of sample size to the size of the population, where sample size (s) is computed based on chi-square ($\chi^2$ at 1 d.f.), a population proportion ($P$) of 0.5, a 0.05 degree of accuracy ($d$), and the size of the
population \((N)\). \(^{13}\) The combined size of the population databases developed for the thesis research included slightly over 1,900 public sector organisations and their main divisions and major offices. According to Krejcie and Morgan’s (1970) table, a sample of 320 is appropriate for this population. However, several other factors need to be considered in establishing an appropriate sample size. For example, when sub-samples are to be analysed, the sample needs to be sufficiently large to ensure appropriate numbers in each sub-group. Citing Hoinville \textit{et al.} (1977), de Vaus (1995) suggests that the smallest sub-groups require at least 50-100 cases to be sampled. Further, the sample size derived from the table does not account for anticipated non-response.

The pilot test of the survey questionnaire (discussed in section 3.8.3) achieved a response rate of 47.6\%, which appears typical for outsourcing survey questionnaires of Australian public sector organisations (see section 3.6.12). This response rate was therefore used as a basis for establishing the size of the final sample. Thus a total combined sample of 675 organisations was selected, which is the sample size of 320 derived from the table, divided by the anticipated response rate of 47.6\%.

To accommodate the sub-samples, the overall sample needed to be divided into three groups of equal size (one group for each organisation type). The choice of equal numbers for each sub-sample is justified on the basis that factorial ANOVA was selected as one of the statistical techniques for analysing the survey data. Factorial ANOVA designs are based on there being equal numbers of scores in each cell (Tabachnick & Fidell 1996, p. 48). In selecting sub-samples of equal size, responses of approximately equal size were more likely for each sub-sample, simplifying the ANOVA procedures. However, actual responses for each sub-sample were not approximately equal, and several compensatory measures had to be employed. Following the determination of sample size, a choice was then made concerning the method for distributing the questionnaire.

\section*{3.6.6 Method of distribution}

The conventional method for distributing a large-scale survey questionnaire is via post. As an experimental innovation, a small number of questionnaires were distributed through the Internet, by e-mail, and the bulk of questionnaires sent by post. While the

\[^{13}\text{The sample size formula underlying the table is } s = \frac{\chi^2 NP(1-P) + \chi^2 P(1-P)}{d^2(N-1)}\]
use of e-mail and other on-line facilities for the distribution and receipt of questionnaires is increasingly popular in marketing research (see, Bowers 1998a, 1998b), the potential of these technologies in accounting research seems to have been overlooked. Of the few suggestions for using e-mailed questionnaires in accounting, e-mail has only been advocated for market research by accounting firms and professional bodies (see, for example, Lane 1996; Perkins 1996; Frederiksen & Co. 1997).

In developing a taxonomy for the use of Internet technology specifically in accounting research settings, Bisman (1997) suggested that e-mailed questionnaires presented a means for overcoming geographic, cost and time barriers in survey research, limited only by potential participants' Internet access. Since a number of public sector organisations do not have or do not make their e-mail addresses publicly available the notion of sending all outsourcing questionnaires via the e-mail system was rejected as it was likely to introduce an unacceptable level of bias.\(^{14}\)

For the sample size of 675 organisations, a random sample of 225 organisations of each of three organisation types was drawn. For each type, postal survey questionnaires were sent to 200 organisations, and the remaining 25 via e-mail.\(^{15}\) There was no need to stratify each sample as the pooling of organisations in the population databases ensured appropriate chance to draw organisations from various government levels and States/Territories based on their incidence in the population.

*Tables 3.5 and 3.6 illustrate various cross-tabulations relating to key characteristics of the organisations sampled, in terms of organisation type, survey distribution method, state/territory, and level of government.*

\(^{14}\) For example, e-mail addresses could be obtained for only 46% of WA local government organisations.

\(^{15}\) Organisations to receive e-mail questionnaires were randomly selected from the 225 organisations to be sampled.
Table 3.5 Characteristics of survey sample & questionnaire distribution

<table>
<thead>
<tr>
<th>State Territory</th>
<th>Budget-funded Organisations</th>
<th>Self-funded Organisations</th>
<th>Local governments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Postal</td>
<td>E-mail</td>
<td>Postal</td>
</tr>
<tr>
<td>NSW</td>
<td>70</td>
<td>8</td>
<td>67</td>
</tr>
<tr>
<td>VIC</td>
<td>40</td>
<td>4</td>
<td>39</td>
</tr>
<tr>
<td>QLD</td>
<td>36</td>
<td>4</td>
<td>27</td>
</tr>
<tr>
<td>SA</td>
<td>15</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>WA</td>
<td>17</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>ACT</td>
<td>15</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>TAS</td>
<td>4</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>NT</td>
<td>3</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Totals</td>
<td>200</td>
<td>25</td>
<td>200</td>
</tr>
</tbody>
</table>

Table 3.5 demonstrates that the random sampling strategy produced a natural stratification of public sector organisations, with the most populous states (in terms of number of public sector organisations) being the most highly represented in the final samples. Organisations sampled also represented each level of government, including the self-contained local government sub-sample, and State/Territory and Commonwealth government levels for budget-funded and self-funded organisations. Table 3.6 divides the budget-funded and self-funded organisation samples into level of government and demonstrates that the majority of types of organisations were State government level, consistent with their representation in the underlying population.

Table 3.6 Government level of budget-funded & self-funded organisations

<table>
<thead>
<tr>
<th></th>
<th>Budget-funded organisations</th>
<th>Self-funded organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( n = 225 )</td>
<td>( n = 225 )</td>
</tr>
<tr>
<td>State</td>
<td>156 (69%)</td>
<td>173 (77%)</td>
</tr>
<tr>
<td>Federal</td>
<td>69 (31%)</td>
<td>52 (23%)</td>
</tr>
</tbody>
</table>

3.6.7 Receipt of questionnaires

The postal survey was mailed to the 600 selected organisations on Friday, October 8, 1999, and 75 e-mail survey questionnaires were sent on Tuesday, October 12, 1999. Responses to both postal and e-mail distributed surveys were due by Friday, October 29, 1999, providing respondents with approximately three weeks to receive, complete and return the questionnaire. Inability to successfully contact some of the selected organisations (discussed in section 3.6.8) ultimately reduced the total combined sample size from 675 to 631 organisations, and also reduced the sample sizes for each of the three organisational types, as detailed later in Table 3.8.
In total, 138 responses, including 7 unusable responses, were received, constituting an overall response rate of 22%. The response rate and issues related to non-response bias are covered in detail in sections 3.6.10 to 3.7.3. For each of the seven unusable responses, participants provided explanations for inability to fully complete the questionnaire, such as two self-funding organisations which preferred not to disclose details for competitive reasons.

Returns of useable questionnaires were analysed on a weekly basis and the results are presented in Table 3.7. Note that Week 1 represents the week ending Friday, October 15, 1999, which was one week after distribution of the questionnaire commenced. Weeks 2 and 3 are within the period up to the closing date for return of the survey, with late and follow-up responses received up to eight weeks after the closing date.

Table 3.7 Selected response characteristics

<table>
<thead>
<tr>
<th>Response characteristics</th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Late &amp; follow-up</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>To postal questionnaire</td>
<td>10</td>
<td>45</td>
<td>26</td>
<td>31</td>
<td>112</td>
</tr>
<tr>
<td>To e-mailed questionnaire</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>To e-mail follow-up</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Totals</td>
<td>10</td>
<td>48</td>
<td>28</td>
<td>45</td>
<td>131</td>
</tr>
<tr>
<td>Local government</td>
<td>5</td>
<td>26</td>
<td>14</td>
<td>19</td>
<td>64</td>
</tr>
<tr>
<td>Self-funded</td>
<td>2</td>
<td>12</td>
<td>8</td>
<td>14</td>
<td>36</td>
</tr>
<tr>
<td>Budget-funded</td>
<td>3</td>
<td>10</td>
<td>6</td>
<td>12</td>
<td>31</td>
</tr>
<tr>
<td>Totals</td>
<td>10</td>
<td>48</td>
<td>28</td>
<td>45</td>
<td>131</td>
</tr>
</tbody>
</table>

* The separate ‘e-mail follow-up’ category is discussed in section 3.6.11.

Table 3.7 highlights the relatively greater number of responses to the survey questionnaire from local governments, compared to those from budget-funded and self-funded organisations. The table also illustrates the large number of late and follow-up responses, representing over 34% of all responses, and the poor response rate (7%) to questionnaires distributed by e-mail. The covering letter accompanying the e-mailed questionnaire offered organisations the option to request a postal questionnaire. None of the organisations e-mailed made use of this option.

An Executive Summary of results of the research was offered to all potential postal and e-mail respondents as an incentive to improve the response rate, as well as to provide useful feedback to respondents (see covering letter in Appendix 3). Eleven organisations requested to receive this summary, which tends to indicate that the offer was not a particularly appealing inducement.
3.6.8 Contact difficulties

One of the more perplexing problems relating to the distribution of questionnaires was the inability to obtain accurate address details for selected organisations. Of the 675 organisations sampled, 92 (13.6%) proved difficult or impossible to contact despite the fact that addresses were listed in current government and phone directories.

Several strategies were implemented to contact these organisations. In the course of follow-up it was discovered that 8 organisations had ceased operations. Alternative addresses were available for 48 organisations and questionnaires were resent via the postal system. Of organisations still non-contactable, rather than attempting to contact alternative organisations, sample sizes were adjusted. The adjustment to sample size was justified on the basis that 44 organisations were involved, representing only 6.5% of the entire sample. It is also unlikely that the adjusted samples contain location selection bias based on a comparison of the number of rejected addresses by State/Territory and the original State/Territory composition of the sample as disclosed in Table 3.5.

As shown in Table 3.8, the local government sub-sample was marginally reduced from 225 to 223 organisations, however sample sizes for both budget and self-funded organisations declined somewhat more by 26 (11.6%) and 16 (7.1%) organisations respectively. Of the budget and self-funded organisations no longer part of the samples, approximately two-thirds (66%) were State government level, and one-third (33%) Commonwealth government. It is unlikely that this has biased the samples in favour of either Commonwealth or State level organisations given that around 63% of organisations in the original sample were State level and 37% Commonwealth level.
Table 3.8  Sample size alterations: Causes & effects

<table>
<thead>
<tr>
<th>Rejected addresses by State Territory for each organisation type</th>
<th>Local Govt</th>
<th>Budget-Funded</th>
<th>Self-Funded</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Original sample sizes</strong></td>
<td>225</td>
<td>225</td>
<td>225</td>
<td>675</td>
</tr>
<tr>
<td>NSW</td>
<td>0</td>
<td>14</td>
<td>12</td>
<td>26</td>
</tr>
<tr>
<td>VIC</td>
<td>0</td>
<td>8</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>QLD</td>
<td>1</td>
<td>11</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>SA</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>WA</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>ACT</td>
<td>N/A</td>
<td>2</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>TAS</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>NT</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>2</td>
<td>43</td>
<td>39</td>
<td>84</td>
</tr>
<tr>
<td><strong>Plus, organisations ceased operations</strong></td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td><strong>Less, resent to other addresses</strong></td>
<td>2</td>
<td>28</td>
<td>18</td>
<td>48</td>
</tr>
<tr>
<td><strong>Sample sizes after adjustments</strong></td>
<td>223</td>
<td>209</td>
<td>199</td>
<td>631</td>
</tr>
</tbody>
</table>

While research efforts can be hampered by inability to contact respondents, difficulty in contacting public sector organisations is more generally of concern from an accountability perspective considering the responsibilities and obligations these organisations have to the community at large. This contact problem could be attributed to the frequency with which government departments and agencies undergo name changes, are amalgamated or disbanded, or move premises, and to the effects of the 1998-99 State government elections in NSW and Victoria.

3.6.9 Follow-up

Non-respondents were pursued using a variety of follow-up techniques. At the end of Week 3 all contactable organisations which had originally received the postal survey were sent a follow-up letter (reproduced in Appendix 4). Approximately 50 organisations received follow-up telephone calls, faxes and e-mails, but this method proved prohibitive in terms of time and cost for contacting all organisations. A second round of follow-up letters was therefore mailed.

Follow-up letters to postal questionnaire recipients produced 20 requests for replacement questionnaires, 50% of which were received from local governments, with the remainder divided between budget-funded (30%) and self-funded organisations (20%). These follow-up requests were received from organisations in all states and territories. Surprisingly, 35% of organisations specifically requested an e-mail replacement questionnaire. While the problems of using e-mail for the distribution and receipt of questionnaires are canvassed in the next section, this follow-up result indicates that e-mail may be a quick and efficient method for effecting follow-up, and is
preferred by some non-respondents. Non-respondents that had originally received an e-mail questionnaire were sent a postal questionnaire, together with an appropriate follow-up letter, producing fourteen useable responses.

3.6.10 Response rate

After all follow-up rounds, the total useable response rate was 22% (yielding \( n = 131 \)), with response rates for each organisation type (sub-sample) of:

- local government\(^{16}\) organisations, 29.1\% \( (n = 64) \)
- self-funded organisations, 19.1\% \( (n = 36) \)
- budget-funded organisations, 16.6\% \( (n = 31) \)

The total useable response rate for the postal questionnaire was 21.4\% and 25\% for the e-mailed questionnaire. These response rates are far from ideal and raise questions as to why a higher response rate was not achieved and whether there is non-response bias.

3.6.11 E-mailed questionnaire response issues

The original response rate to questionnaires distributed via e-mail was a poor 7\%. By comparison, a response rate of 26\% was achieved in a recent e-mail survey questionnaire study of Australian accounting/finance and physical sciences academics \( (n = 620) \) concerning superannuation options choice (Gallery 1999). Several explanations exist for the poor response rate to the e-mailed outsourcing survey questionnaire. In Gallery’s (1999) study, e-mail addresses for individuals were readily available in academic directories. However, in most cases, the outsourcing survey questionnaire could only be sent to an organisational e-mail address with a request that it be forwarded to the CFO of the organisation. It is therefore likely that a number of e-mailed questionnaires never reached the intended recipients. A poor response rate to e-mailed questionnaires might also reflect concerns potential participants have in responding to unsolicited e-mail communications, and the risks of receiving computer viruses through e-mails. These points are evidenced by the response to the postal follow-up to non-returned e-mailed questionnaires. When the postal follow-up responses are combined with original e-mailed responses, the response rate for this category jumps from 7\% to 25\%. This observation is not surprising as numerous

\(^{16}\) Hodge (1996) found that 58\% of studies in the sample for his meta-analytical study of public sector outsourcing were at the local government level. The seeming excess of local government studies might be as much a reflection of the propensity for local governments to participate in studies as it is of researchers’ preoccupation with this level of government. If the former is the case, it might go some way in explaining the relatively higher local government response rate achieved for the survey research discussed in this thesis.
researchers have found the response rate to e-mail questionnaires are substantially less than those achieved via postal questionnaires (for example, see Kittleson 1995; Schaefer & Dillman 1998; Weible & Wallace 1998).

3.6.12 Postal questionnaire response issues

The postal and overall questionnaire response rates of 21.4% and 22% respectively, were lower than the anticipated 47.6% response rate. The anticipated response rate had been based on rates achieved for the pilot of the questionnaire and on relevant, extant literature on response rates.

Wallace and Mellor (1988) suggest that response rates to postal surveys for accounting research purposes range between about 15% and 50%. In prior doctoral and masters’ degree research of outsourcing, response rates also vary quite similarly between the 15% to 40+% mark (see, for example, Lee 1994; Borchers 1996; Buttleman 1998; Duran 1998; Greenwood 1998). Response rates for prior survey questionnaire research on Australian public sector outsourcing average around 47%, as illustrated in Table 3.9.

### Table 3.9 Response rates to outsourcing survey questionnaires of the Australian public sector

<table>
<thead>
<tr>
<th>Nature of outsourcing survey study</th>
<th>Response rate</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAS &amp; SA local governments</td>
<td>75%</td>
<td>ACC 1988b</td>
</tr>
<tr>
<td>VIC local governments</td>
<td>44%</td>
<td>ACC 1988a</td>
</tr>
<tr>
<td>Local governments (all states)</td>
<td>55%</td>
<td>1989 Evatt Research Centre (see Botsman 1995)</td>
</tr>
<tr>
<td>Commonwealth government agencies</td>
<td>34%</td>
<td>Domberger, Hall &amp; Jeffries 1995</td>
</tr>
<tr>
<td>NSW local governments</td>
<td>31%</td>
<td>PSRC 1996</td>
</tr>
<tr>
<td>Mean (unweighted) response rate</td>
<td>47%</td>
<td></td>
</tr>
</tbody>
</table>

While the anticipated response rate appeared achievable, several factors came to light subsequent to the administration of the final survey questionnaire and which provide plausible explanations for the lower actual response rate. Firstly, there were the contact difficulties. The number of questionnaires that did not reach intended recipients, due to unreliable publicly available address details is an unknown quantity. Not all such questionnaires are likely to have been returned to sender. Secondly, there is the issue of questionnaire overload. In recent times, managers are increasingly targeted as survey respondents; a point reinforced by a management accounting survey conducted by Roberts (1999, p. 72) who found that managers complained about the number of surveys in which they had been asked to participate. Lastly, there is some evidence to
suggest that response rates to surveys are declining with time (Goyder 1988: Kervin 1992) and so the lower actual response rate may simply be a sign of this trend.

3.7 Survey questionnaire: Non-response bias testing

While the preceding discussion highlights a number of reasons why the overall response rate was only 22%, the main problem posed by this response rate is the possibility of non-response bias. There are two main forms of survey non-response: questionnaire non-response and item non-response. When some potential participants in a survey do not respond, results can be biased when the characteristics of non-respondents differ from those of respondents. This questionnaire non-response bias can have a detrimental affect on external validity and generalisability and so needs to be identified prior to survey analysis. Item non-response occurs when respondents do not answer one or some survey questions. Item non-response produces missing values, reduces the amount of data available concerning a variable, and can render analysis meaningless.

There are several ways to assess bias for both types of non-response. Figure 3.3 summarises possible tests for non-response bias in mail accounting surveys. Those applied to the outsourcing survey questionnaire appear in bold print.

**Figure 3.3 Structural analysis of tests for non-response bias**

<table>
<thead>
<tr>
<th>Questionnaire non-response</th>
<th>Item non-response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structured</td>
<td>Unstructured</td>
</tr>
<tr>
<td>Coded by researcher prior to questionnaire distribution</td>
<td>Coded by the statistical software package used</td>
</tr>
<tr>
<td>Surrogate</td>
<td></td>
</tr>
<tr>
<td>Assessing whether responses received validly represent non-respondents</td>
<td>Assessing whether responses received validly represent the entire population</td>
</tr>
</tbody>
</table>

*Adapted from:* Wallace & Mellor (1988) p. 138
In general, item non-response in the outsourcing survey was very low. In addressing item non-response, the unstructured technique was applied, although piloting of the survey questionnaire had already assisted in reducing item non-response by enabling problematic questions to be clarified prior to compiling the final draft. Using SPSS as the statistical analysis package, item non-response was missing value coded allowing missing values to be handled appropriately for each of the statistical techniques used.

In terms of questionnaire non-response, two of the primary methods identified in Figure 3.3 were applied, being the surrogate method and assessment of validity of responses compared to the population. The third method, that of assessing whether responses received validly represent the non-responses, was not applicable, as non-respondents could not be identified due to respondent anonymity.

The surrogate method of assessing non-response bias, by comparing on-time and late/follow-up responses is popularly used in the accounting research literature (Brownell 1995). This comparison is a form of trend analysis, which assumes non-respondents have the same characteristics as late respondents. Because organisations were sampled from three distinct populations, according to organisation type, it was possible that distribution of non-respondents in each sub-sample was non-symmetrical (Wallace & Mellor 1988) and so it was necessary to test each organisation type sub-sample as well as the overall sample. Consequently, the use of the group by group method was most appropriate.

In examining questionnaire non-response, researchers generally choose one or two key questions or variables, often relating to characteristics such as organisation size, location, or age of respondents, as a basis for making on-time/late response comparisons (for examples see, Kanuk & Berenson 1975; Brownell 1995, p. 34; Roberts 1999, p. 62). Consistent with these recommendations, responses from each organisation type sub-sample were tested, using the group by group method, on three key questions concerning:

- an organisation size demographic (Question 24); and,
- two direct, research question-related variables, being the weighted importance of cost and financial factors in outsourcing decision making (Question 4), and the frequency of ex-post, cost effectiveness evaluations of outsourcing decisions (Question 6).
In making response/population tests, two further variables, State/Territory and level of
government (Local, State or Federal) were tested and used for making comparisons
between respondents and the entire population. Information concerning these variables
was available from survey questionnaire responses (Questions 21 & 23) and from the
population databases. It was possible to test the hypotheses that the percentage of actual
respondent public sector organisations for a particular State or level of government were
the same as the population proportion of public sector organisations in that State or at
that level.

For all non-response bias tests, comparisons were between all on-time responses
(Weeks 1 to 3) and all late responses (Weeks 4 to 8), as this approach avoided the
selection bias problem that occurs if using only samples of late and on-time responses.

3.7.1 Group by group results

There were no significant differences detected within groups for the budget-funded or
self-funded organisations' sub-samples. However, analysis revealed that for local
government organisations, late respondents placed less importance on cost and financial
factors in outsourcing decisions than did on-time respondents (significantly different, at
the one-tailed level only, sig. 0.0435). In the between-groups tests, some significant
differences were also noted and are summarised in Table 3.10.17

<table>
<thead>
<tr>
<th>Table 3.10 Significant differences between groups</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Question</strong></td>
</tr>
<tr>
<td>--------------</td>
</tr>
<tr>
<td>4&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>4&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

KEY:  
<sup>a</sup> Q.4 concerned the importance of cost & financial factors in making outsourcing decisions.  
<sup>b</sup> Mean importance weighting (out of 100%) of costs & financial factors.

Table 3.10 shows that in the local government/budget-funded and local
government/self-funded comparisons, late respondents held cost and financial factors to
be significantly less important in outsourcing decisions than did on-time respondents.

---

17 Note that t-tests, rather than ANOVA procedures were used to test between groups. There are only two
means to compare (mean response of on-time respondents and mean response of late respondents) within
and between groups.
3.7.2 Response/population results

As the variables State/Territory and level of government are categorical, non-parametric tests were used. All tests were for unequal proportions and frequencies, based on the relative incidence of categories of the specified variables in the population. The results of these tests are presented in Table 3.11.

Table 3.11 Results of response/population comparison tests

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sample</th>
<th>Test statistic</th>
<th>p value (Asymp.Sig.)</th>
<th>Significant α=0.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>State/Territory</td>
<td>Combined (a)</td>
<td>7.090</td>
<td>0.420</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Within groups:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Local government</td>
<td>11.410</td>
<td>0.076</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Self-funded organisations</td>
<td>10.590</td>
<td>0.060</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Budget-funded organisations</td>
<td>2.307</td>
<td>0.805</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Between groups:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Local govt. &amp; self-funded</td>
<td>11.752</td>
<td>0.109</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Local govt. &amp; budget-funded</td>
<td>9.872</td>
<td>0.196</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Self-funded &amp; budget-funded</td>
<td>4.223</td>
<td>0.518</td>
<td>No</td>
</tr>
<tr>
<td>Government level</td>
<td>Combined</td>
<td>92.135</td>
<td>0.000</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Within groups:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Local government</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Self-funded organisations</td>
<td>3.658</td>
<td>0.161</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Budget-funded organisations</td>
<td>(b)</td>
<td>0.125</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Between groups:</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>N/A</td>
</tr>
</tbody>
</table>

(a) Note that the combined results are those of overall tests and are not based on summation of the results of individual tests.
(b) The budget-funded organisations' population database (and hence survey responses) did not reveal any budget-funded, non-council organisations at the local government level. Consequently, a binomial, rather than a Chi-square test was conducted. The test proportion used was 0.66 (State/Territory).

Table 3.11 indicates that there was only one significant difference between actual and expected responses for the non-parametric tests conducted to compare respondent characteristics with population characteristics. The difference concerned level of government in the combined sample and does not necessarily indicate non-response bias; rather it indicates the intentional selection bias that resulted from sampling equal numbers of local government, self-funded, and budget-funded organisations from the population and the relatively higher response rate of local governments. Thus local government was weighted differently in the sample (and the responses) compared to its population proportion.

3.7.3 Non-response bias findings

There was no evidence of non-response bias with or between groups, in terms of organisation size, or frequency of evaluation of cost effectiveness of outsourcing decisions, nor between responses and the population, according to State/Territory, or
level of government. Since only one question tested using the surrogate method produced significant results, and response/population tests were negative for non-response bias, there does not appear to be any pervasive or systematic bias in any subsample or in the overall sample.

3.8 Survey questionnaire: Variables & scales

Several aspects of the survey questionnaire have been discussed in the preceding sections. This section focuses on the type of questions and variables that were included in the questionnaire and the scales used in those questions.

The questionnaire was based upon the model developed in Chapter 2, and refined by the qualitative research described in Chapter 4. Some of the questions used were informed by prior survey instruments such as those developed by CTC Consultants (1996), and by contracting questionnaires such as those of Alston, Worthington and Goldsman (1988), and White and James (1996). In particular, questions concerning the key aspects of TCE were adapted from pre-existing single-item measures of the variables used in prior empirical studies (see, for example, Walker & Weber 1984; Anderson 1985; Jones 1987; Pouder 1996).

3.8.1 Questions: Nature & scales

The questionnaire consisted of a number of forced-response questions as well as open-ended questions. The final questionnaire appears in Appendix 5. Most questions in the survey instrument were closed-ended, including yes/no questions to elicit information concerning organisational practices, and others using Likert scales to elicit responses relating to attitudes and beliefs. The 7-point scale is commonly used in accounting research, and is often combined with Likert scales of other point values or with other types of scales in the same questionnaire (for example, see Dunk 1995; Deegan 1997). Some questions (eg. Questions 5, 7, 9, 15) were rated on 3 or 6-point Likert and frequency scales since data collected from the interview component of the research indicated that respondents' had difficulty in discriminating differences on these issues using more finely tuned ratings.

The pilot trial of the survey questionnaire also revealed that respondents found it more understandable for lower numbers within scales to represent more positive responses. For example, when using 7-point Likert scales, several pilot study respondents
commented that the notion of the numeral 1 representing a Very Strongly Agree (VSA) response was more understandable than using the numeral 7 for a VSA response (see Appendix 5). All scaled questions thus feature the numeral 1 to represent the most positive response. For consistency with this format of questionnaire presentation, analysis of data appearing in Chapter 5 accords with the principle of more positive responses being associated with lower numbers on the scales.

Several questions used in both the interview and mailed survey questionnaire stages of the research used self-ratings, such as a 3-point personal attitude to outsourcing scale (which appears as survey Question 15). Such self-rating scales sometimes produce leniency error - overly favourable or socially desirable ratings, although they are less susceptible to error that can occur as a result of raters’ inability to discriminate among facets of a variable. In management accounting research, there is considerable support for the notion that self-rating scales can produce both useful and meaningful data, which is no less objective than data derived from so-called ‘objective’ sources, such as management accounting reports (Brownell 1995, pp.43-45; Brownell & Dunk 1991).

A further question asked in both interviews and in the mailed questionnaire (survey Question 9), required participants to rate their organisation’s adoption of outsourcing on a 3-point scale. This question essentially asks for the participant’s perception of their organisation’s level of outsourcing activity; such assessment may or may not be objective, but it is the perception which is of most importance in the context of the current research. As Dunk (1993, p. 402) discovered in his study of budget slack, while it might be desirable to use other, more objective data for determining levels of budget slack, the means for gathering such data are difficult to determine. The same can be said for ascertaining an organisation’s level of adoption of outsourcing. The mere number or dollar value of an organisation’s outsourcing contracts would not provide an assessment of the level of adoption of outsourcing without reference to a host of other particulars such as organisation size characteristics, organisation or departmental outsourcing policy, and trend analysis of these and other variables. However, since an information evaluator or decision maker’s perceptions are likely to affect their behaviour, a participant rating of organisational adoption of outsourcing is of more value given the research questions.
Apart from the type of scale used to force a response to close-ended questions, various scales of measurement were also featured. Several questions in the survey instrument used ratio scales (eg. Questions 4, 16, 17, 24, 25). Others reflect underlying interval or ordinal scales of measurement (eg. Questions 5, 6, 7, 9, 10, 11, 13, 15), or nominal (categorical) scales (eg. Questions 1, 12, 19, 21, 22, 23). In the data analysis phase, statistical tests consistent with the nature of particular scales were applied.

There were also a number of open-ended questions incorporated into the survey questionnaire to allow participants to elaborate on various issues. The use of open-ended questions in mailed survey questionnaires is generally not recommended (Brownell 1995; de Vaus 1995) because of problems of respondent understanding and inability to clarify question meaning, as well as potential difficulties in interpreting responses. However, as the questionnaire closely followed the established interview protocol, was examined by experts in questionnaire design, and was pilot tested, the level of ambiguity in open-ended questions was minimised. Very few respondents chose not to answer open-ended questions, and few problems were encountered in interpreting and coding open-ended responses. Responses to open-ended questions were qualitatively analysed and where appropriate, coded and subjected to quantitative statistical tests.

3.8.2 Key variables

Organisation structure is the key dependent variable in TCE. In other words, the choice to use the market (ie. outsource) is dependent upon a number of factors (independent variables). TCE and contingency theory both specify sets of independent variables. In TCE, the main independent variables describing how transactions differ include asset specificity and uncertainty (Williamson 1991c). In contingency theory, structure is contingent (dependent) upon several other factors, such as uncertainty and size.

Reliable, pre-existing measures or rating scales were not available for all of the variables proposed by these theories. For example, while the TCE-related survey questions were based on existing, single measures of relevant variables applied and tested in prior empirical research (see Walker & Weber 1984; Anderson 1985; Jones 1987; Pouder 1996), the physical asset specificity variable could not be examined directly due to the difficulties associated with operationalising the variable in survey research, as noted by Shelanski and Klein (1995). Instead, the physical assets question
of the survey assessed the likelihood of managers' considering the irrelevant sunk costs of existing in-house assets in making outsourcing decisions.

As the current research is not concerned with an in-depth study of agency theory or TCE alone, several variables proposed by the theories were not tested directly. As Chenhall and Langfield-Smith (1993, p. 22) observe, it is not always possible to include all potentially relevant variables in a management accounting study, and often a 'parsimonious set of constructs' reflecting key elements need to be used instead. However, questions concerning the importance of costs in outsourcing decisions, the key issue in the research, were developed following a rigorous process of operationalisation and assessment of the reliability and construct validity of questions and scales. Operationalisation commenced with the case study and continued through the individual interviews with public sector managers, and piloting of the survey.

3.8.3 Pilot study

In total, twenty-one public sector managers were selected to form the pilot sample. Ten responses were received, constituting a response rate of 47.6%. Not included in this number were other relevant individuals, sampled on a purposive basis, including experts in questionnaire design, a commercial and contract lawyer, and a trade union official: all of whom reviewed the questionnaire. This broad piloting strategy was aimed at ensuring the questions were understandable and relevant to participants and to the issues under consideration and that the questionnaire was appropriately constructed.

Brownell (1995, p. 48) points out that one of the serious flaws of much cross-sectional management accounting research is that pre-tests are often not conducted. The pilot study is a form of pre-test, and a test of reliability. The pilot also assisted in improving operational clarity and conceptual and content validity in the final questionnaire.

Three public sector managers interviewed in the qualitative component of the research agreed to take part in the pilot survey. The survey was piloted almost a year after the interviews had taken place and so it was believed that a comparison of data obtained from the interviews, relating to relevant equivalent questions in the survey, would provide a fairly robust test of consistency and stability in responses. In essence this was a form of test-retest reliability analysis. Several questions were targeted for comparison. Because quantitative analysis of interview data was never intended, a
reliability coefficient comparing interview and pilot responses could not be calculated. Rather a qualitative assessment of responses was made to test reliability. Some slight variations were detected in some participants' responses (e.g. from strongly agree to agree), but no completely inconsistent responses (e.g. from agree to disagree) were noted.

These three (3) managers also agreed to complete the final questionnaire, some two to three months after completing the pilot draft, as a further test-retest measure of reliability. \textsuperscript{18} Based on follow-up discussions with the managers, it emerged that of the few variations in responses, all were due to staffing and administrative changes within their organisations that had occurred during the interim period. Thus differing responses did not reflect unreliability of the questionnaire. Following piloting of the survey instrument, several minor changes were made to the questionnaire.

### 3.9 Survey questionnaire: Reliability & validity

Brownell (1995, p. 38) suggests that the items which comprise a survey instrument should be subjected to four types of reliability and validity analyses, being:

1. reliability tests;
2. coding of open-ended questions;
3. identification of categories in open-ended questions; and,
4. comparison of written and interview versions.

Each of these analyses was conducted, with particular attention paid to reliability and variable measurement.

#### 3.9.1 Coding of open-ended questions & interview comparisons

In terms of the final three points listed above, coder reliability was an issue in analysing responses to open-ended questions of the survey instrument, as only one coder (the researcher) was involved in all stages of the research. There is however, some evidence to suggest that a single, independent coder would be expected to achieve 70-95% agreement with other coders (Hayes & Flower 1980). The lower end of the scale represents more complex protocol coding and analysis tasks, such as those of relating verbal or written information to theoretical models.

\textsuperscript{18} But note that their responses are not included in the final sample.
Two techniques were applied to improve the reliability of coding. The first involved recoding of a random sample of responses several weeks after the initial coding was completed. The agreement level between initial coding and later recoding was between 90% and 100% for each response set sampled and recoded, and is above the 80% to 90% coding reliability norm suggested by Miles and Huberman (1994).

Secondly, several participants in the pilot study of the questionnaire were contacted and agreed to discuss the meaning of their responses to open-ended questions with the researcher. This procedure was designed to enhance the reliability of coding. There were no significant differences detected between respondents’ meanings and intentions and the codes and categorisations applied by the researcher to their answers. Since many of the questions were derived from the content analysis study and were used in or developed as a result of the interview component of the research, it was a relatively straightforward task to develop consistent and reliable means for coding responses. Appendix 6 presents the coding schema developed and used for analysing responses. While these procedures assisted in establishing the reliability of open-ended questions, several key close-ended, rating scale questions also needed to be assessed in terms of reliability.

3.9.2 Reliability & factor analyses
An item analysis was conducted to assess the factorial validity, dimensionality, pattern and magnitude of correlations, internal consistency and reliability of key aspects of the survey questionnaire. In part, the establishment of reliability involved determining whether the measuring instruments yielded stable responses across items and factors. In general, newly developed, multi-item scales require reliability testing. Cronbach’s alpha coefficient is the most popularly used reliability measure in management accounting survey research (Brownell 1995, p. 49) and was used for testing the reliability of several measures. Calculation of the coefficient was preceded by a factor analysis of the items.

To conduct the analysis, responses to the final questionnaire, rather than the pilot draft, were used. Factor analysis requires sample sizes larger than those often used for pilot testing a survey instrument, since there is less reliability associated with correlation coefficients if estimated from small samples. Tabachnick and Fiddell (1996, p. 640) suggest that ‘the required sample size also depends on magnitude of population
correlations and number of factors'; the fewer and more distinct the number of factors the smaller the required sample size, such that 150 cases should be sufficient. Gorusch (1983) maintains that a minimum of 100 cases or participants is appropriate for factor analysis, and so the final survey data \((n > 100)\), rather than the pilot data \((n = 10)\) was used as the basis for factor analysis.

The measures of most importance in the study were those relating to costs and costing methods. These measures are grouped together in Question 5 of the final survey questionnaire (refer to Appendix 5) and consisted of:

- a nine item measure of production costs (Question 5 items (i) to (ix)); and,
- a three-item measure of the transaction costs of external supply (Question 5 items (x), to (xii)).

Appropriate and inappropriate methods for determining in-house production costs for outsourcing decision-making were identified in Chapter 2 (see Table 2.4), and the components of transaction costs associated with external supply were discussed in section 2.7.4 of that chapter. The two measures were factor analysed for consistency and convergent validity among items within instruments, and for conceptual distinctiveness and discriminant validity between instruments. Cronbach’s alphas were calculated to assess the reliability of instruments.

In testing the reliability, consistency and validity of the instruments, the objective was to determine if appropriate and inappropriate costing methods for outsourcing decisions (discussed in Chapter 2) had been grouped correctly. The grouping of items would therefore be expected to load on distinct factors. Exploratory factor analysis is appropriate for this form of dimensionality assessment (Hair et al. 1998, p. 117).

The factor analysis of production cost methods was also used to explore the type or mix of costing methods employed by the organisations surveyed and to search for patterns in these mixes. The results of the factor analyses and associated Cronbach’s alpha coefficients for the measures are reported in Chapter 5.
3.10 Survey questionnaire: Data analysis techniques

The data collected from the survey were analysed using a range of descriptive statistics. All statistical tests were performed using SPSS computer software. The precise techniques used for analysis of data depended upon the composition of the question and the scaling of variables. The key analytical techniques applied to the data were ANOVA and factor analysis.

3.10.1 Analysis of variance

Chapter 5 illustrates numerous applications to the survey data of one-way, two-way and factorial ANOVA to test for between groups differences. For example, one-way ANOVA was used for each of the three main organisation types for Likert-scaled questions. Two-factor ANOVA was used in a similar fashion, but by adding another characteristic, such as government level. The research questions and much of the survey questionnaire are comparative and relative, making ANOVA calculations particularly appropriate. ANOVA techniques have been previously applied in contingency research (for example, see Brownell 1983; Abernethy & Stoelwinder 1991) and outsourcing research based on agency theory and TCE (for example, see Greenwood 1998).

Relationships between continuous variables were determined using ANOVA, as well as relationships between categorical (grouping) variables and continuous variables. Where appropriate, various other parametric and non-parametric tests were used, such as t-tests and chi-square analysis.

ANOVA procedures, rather than alternative techniques, such as discriminant analysis, were also generally preferred, as these procedures are capable of analysing within group differences, as well as between group differences. Further, factor analysis was also applied since it produces richer solutions than discriminant analysis (Tull & Hawkins 1990, p. 375).

3.10.2 Exploratory factor analysis

Factor analytical techniques, to assess validity and reliability of key measures in the survey questionnaire (discussed in section 3.9.2), were also applied to assess the role and significance of costs, among other factors, in outsourcing decision-making. For example, factor analysis was appropriate for and consistent with providing an answer to
Research Proposition 8, which concerned the types of non-financial factors considered in making outsourcing decisions.

The main purpose of factor analysis is to determine if there are certain consistent factors that underlie responses. The technique offers the opportunity to statistically determine if a larger set of variables is actually representative of a smaller set of underlying variables or factors (de Vaus 1995, p. 257) and was useful in dealing with larger numbers of variables, such as those in Question 13 of the survey (see Appendix 5). Where rotation was necessary, the varimax procedure was adopted to ensure maximum variance between factors.

3.11 Survey questionnaire: Strengths & weaknesses

Construct validity has been considered earlier in this chapter. In particular, the content analysis, case study, and individual depth interviews, were designed with the aim of determining and demonstrating construct validity and provide external validation for the questions posed in the survey questionnaire. Factor analytical techniques and Cronbach’s alpha estimates were also used to assess and demonstrate reliability and validity of particular measures used in the questionnaire.

While the external validity of surveys is usually moderate to high, the internal validity is often low. The multi-method approach was adopted to maximise the validity of the entire research project. Table 3.1 detailed the external and internal validity potentialities of each of the chosen methods.

Consistent with the epistemological view adopted and discussed in section 3.2.3, rather than providing causal explanations of relationships between variables the survey was regarded as indicating associations between variables and tendencies consistent with underlying mechanisms and structures.

While the survey questionnaire possesses particular weaknesses, as well as certain strengths, when combined with the other steps and techniques used in conducting the research there is a high degree of cross-validation of data. This cross-validation is often referred to as triangulation.
3.12 Triangulation

The aim of the design was to produce a chain of evidence to form a backdrop to the relations observed between variables, provide greater assurance that threats to the validity of the analysis had been counteracted, and allowing greater confidence to be placed upon the research results (Judd, Smith & Kidder 1991; Brownell 1995). These objectives were achieved by using multiple methods and triangulation.

Previously discussed in section 3.2.6, triangulation, or critical multiplism, is a key feature of critical realism research, and a necessary condition for demonstrating the validity of the research. There are a number of approaches to triangulation, including:

- *between method* triangulation (Denzin 1978);
- *within method* triangulation (Denzin 1978);
- *theory* triangulation (Berry, Laughton & Otley 1991);
- *between studies* triangulation (Birnberg, Shields & Young 1990); and
- *investigator* triangulation (Duffy 1987).

In terms of a critical realist approach, *between methods* triangulation is an obvious outcome. Combinations of qualitative and quantitative methods were used to probe the research question. *Within method* triangulation was facilitated through adoption of a variety of approaches to interviewing. The individual depth interviews in multiple public sector organisations involved the use of both face-to-face and telephone interviews, while the case study of a single public sector organisation incorporated both group and individual interviews.

*Theory* triangulation refers to the use of a variety of theoretical perspectives within a single research project. Reference to multiple theoretical perspectives can provide for a more holistic analysis of data, and more capacity for recognition of alternative interpretations of the same data. The research adopted a multi-theoretical perspective, combining decision theory, agency theory, TCE and contingency theory.

Since the meta-theoretical tenets of critical realism occupy a middle ground, both findings from relevant, prior positive research and interpretive research were used for comparison purposes. The research triangulates with the survey research on cost savings from outsourcing, and furthers the research effort in relation to agency theory, TCE, and contingency theory, offering *between studies/between methods* triangulation. This type of triangulation can more efficiently and effectively advance knowledge in
rapidly changing disciplines such as management accounting (Birnberg, Shields & Young 1990, p. 62). Further, if the case study, depth interviews and survey research reported in this thesis are regarded as discrete, the results and findings of each step contribute to between studies triangulation. As Young (1999 p. 81) maintains, field research in management accounting serves the 'important role' of 'informing other research methods'.

As there was only one researcher involved in the project, there was no direct opportunity for investigator triangulation and this may result in the introduction of researcher bias. However, the potential for such bias was minimised by seeking post-analysis validation from case study managers and some of the depth interviewees, and from experienced, qualitative and quantitative researchers in accounting and other relevant discipline areas.

The following chapters detail how each of the research methods was applied and discuss the results and findings of each. Chapter 4 reports on the case study and the depth interviews, while Chapter 5 discusses the analysis of data gathered through the survey questionnaire.
CHAPTER 4: QUALITATIVE ANALYSIS

4.1 Introduction

Chapter 3 described the purposes and data collection and analysis strategies for each of the three main stages of the research. The first two stages of the research were qualitative, and the final component, a survey questionnaire, was predominantly quantitative. Results and findings for the two qualitative methods are discussed in this chapter, being a case study of a public sector organisation and, a series of individual, depth interviews with managers from fifteen other public sector organisations.

Chapter 4 begins with summaries of the case organisation background, and of the depth interview participants and their organisations. The basis of the thematic orientation of the analysis applied in the chapter is then described, prior to detailed presentation and analysis of the qualitative data.

The chapter progresses by illustrating how both the case study and depth interviews provided the means for identifying and examining key themes and issues in costing for public sector outsourcing decisions and for adding real-world, organisational contexts to the illumination of these themes. In addition to this qualitative, thematic analysis, two research propositions are directly addressed in this chapter, and the exposition on each theme closes with a summary of how the qualitative data has informed or added to the various other research propositions. The chapter concludes with a discussion of the modifications made to the multi-theoretical model based on these qualitative results.

4.2 Case study organisation selection & background

After discussions with managers of several public sector organisations, the organisation chosen for the case study was selected because it best fitted the criteria for an information-rich case. A summary of the case selection criteria from Chapter 3 and descriptions of how the chosen organisation matched those criteria appears in Table 4.1.


<table>
<thead>
<tr>
<th>Criteria for case selection</th>
<th>Case organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisation is making and has made important outsourcing decisions</td>
<td>The organisation has nine past &amp; current outsourcing contracts of varying degrees of complexity</td>
</tr>
<tr>
<td>Is considering engaging in further outsourcing</td>
<td>The organisation is considering outsourcing at least four additional functions in future</td>
</tr>
<tr>
<td>Has had both successful and unsuccessful outsourcing experiences</td>
<td>According to management, the organisation has had two unsuccessful contracts, one ongoing experience which is only partly successful, as well as having engaged in some successful outsourcing</td>
</tr>
<tr>
<td><strong>A variety of problems and prospects relating to:</strong> Costing systems</td>
<td>The current costing system is inadequate</td>
</tr>
<tr>
<td>Politics</td>
<td>A number of internal &amp; external political pressures affect the case organisation</td>
</tr>
<tr>
<td>Staffing &amp; labour relations</td>
<td>Apprehensions of staff concerning outsourcing &amp; the impact of a powerful &amp; active union</td>
</tr>
<tr>
<td>Other difficulties or prospects</td>
<td>Inheritance of a problematic outsourcing contract from a predecessor organisation and current financial difficulties</td>
</tr>
</tbody>
</table>

Apart from matching the information-rich criteria, the case organisation also satisfied the non-local government level, regional location, organisation size and accessibility criteria described in Chapter 3.

As the case study was only one step in the research, the case analysis is highly summarised; only critical information and key incidents are reported. The principal unit of analysis for the case study, derived from transaction cost economics (TCE), was an outsourcing decision or contract. Past, current and planned outsourcing decisions and contracts were analysed, and in all, thirteen outsourcing activities were identified. Data concerning the organisation's formal decision processes and decision support systems, including accounting systems, were also collected and analysed, and related to its outsourcing activities. Specific information sources, such as case organisation documents, are disclosed in the analysis, together with selected data and quotations extracted from interviews.

The case organisation is a self-funded, Australian public sector organisation operating in a regional area. The organisation will be referred to in this research as 'the Foundation'. The name and minor details relating to this organisation have been disguised in order to preserve its identity. Such disguise is necessary because the Foundation operates in the
open market, competing with other private and public sector organisations in the
industry. The few disguised characteristics do not however, restrict the validity of the
data and analysis presented and it is not unusual to disguise an accounting case
organisation to preserve confidentiality (see, for example, Booth 1995b).

The Foundation operates in a highly competitive and often volatile industry, and is
relatively small, employing less than 100 people, inclusive of casual staff, and has an
annual budget of under $7 million. The organisational mission involves both an
environmental preservation component, and a self-funding, service provision objective. These seemingly contradictory goals are, as one case organisation manager put it,
'symbiotic'. Another manager concurred, saying the self-funding operations are 'the
cash cow' that enables achievement of the organisation's environmental preservation
mandate. The Foundation is an autonomous government trading enterprise (GTE) that
receives no financial assistance from the government, and so operates within the
restrictions of its own capacity to generate revenue. The Foundation retains any
surpluses it earns, rather than remitting profits to the State's consolidated fund.

The Foundation and its twelve member Governing Board are constituted under the
provisions of State legislation. The Board consists of political appointees with the
Chairman of the Board accountable to the relevant State government minister. The
General Manager, assisted by three other Executive Managers, reports to the Board, and
the direction of day to day operations is facilitated through four Middle Managers, and
several Operating Managers, consistent with the Organisation Chart.

This section has detailed the background of the case organisation. The next section
identifies the backgrounds and characteristics of managers from other public sector
organisations who took part in the series of depth interviews.

---

1 Based on Annual Reports and interviews with managers.
2 According to the case organisation's Strategic Plan, Annual Reports, and publicity ephemera.
4.3 Interview participants’ backgrounds

One interviewee from fifteen other public sector organisations was selected according to the criteria and procedures identified in Chapter 3. Of the fifteen participants all but one were male and their ages ranged from 30 years old through to retirement age, with the mean age approximately 42 years. Other key details relating to these managers and the organisations they represent are presented in Table 4.2.

Table 4.2 Interviewee and organisation characteristics

<table>
<thead>
<tr>
<th>Organisation Type</th>
<th>ID</th>
<th>Manager’s position</th>
<th>Industry</th>
<th>State Territory</th>
<th>Govt. level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local govt orgs</td>
<td>LG1</td>
<td>Finance Officer</td>
<td>Local government</td>
<td>NSW (regional)</td>
<td>Local</td>
</tr>
<tr>
<td>LG2</td>
<td>General Manager</td>
<td>Local government</td>
<td>NSW (regional)</td>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>LG3</td>
<td>Corporate Services Director</td>
<td>Local government</td>
<td>VIC (metro)</td>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>LG4</td>
<td>Town Planner</td>
<td>Local government</td>
<td>NSW (regional)</td>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>LG5</td>
<td>Finance Manager</td>
<td>Local government</td>
<td>NSW (metro)</td>
<td>Local</td>
<td></td>
</tr>
<tr>
<td>Self-funded orgs</td>
<td>SF1</td>
<td>Finance Manager</td>
<td>Electricity/Power</td>
<td>NSW (both)</td>
<td>State</td>
</tr>
<tr>
<td>SF2</td>
<td>Business Manager</td>
<td>Tourism</td>
<td>NSW (regional)</td>
<td>State</td>
<td></td>
</tr>
<tr>
<td>SF3</td>
<td>Manager</td>
<td>Conservation</td>
<td>NSW (regional)</td>
<td>State</td>
<td></td>
</tr>
<tr>
<td>SF4</td>
<td>Director</td>
<td>Leisure/Recreation</td>
<td>NSW (metro)</td>
<td>State</td>
<td></td>
</tr>
<tr>
<td>SF5</td>
<td>General Manager</td>
<td>Tourism</td>
<td>NSW (regional)</td>
<td>State</td>
<td></td>
</tr>
<tr>
<td>Budget-funded orgs</td>
<td>BF1</td>
<td>Director</td>
<td>Higher education</td>
<td>NSW (regional)</td>
<td>CtW.</td>
</tr>
<tr>
<td>BF2</td>
<td>CEO</td>
<td>Health</td>
<td>NSW (metro)</td>
<td>State</td>
<td></td>
</tr>
<tr>
<td>BF3</td>
<td>Finance Manager</td>
<td>Health</td>
<td>NSW (regional)</td>
<td>State</td>
<td></td>
</tr>
<tr>
<td>BF4</td>
<td>Purchasing Director</td>
<td>Justice/Corrections</td>
<td>QLD (metro)</td>
<td>State</td>
<td></td>
</tr>
<tr>
<td>BF5</td>
<td>Accountant</td>
<td>Heritage/Culture</td>
<td>ACT (metro)</td>
<td>CtW.</td>
<td></td>
</tr>
</tbody>
</table>

* The organisation/manager identifications (ID) provided in the second column of Table 4.2 above are used throughout this chapter to reference key data and quotations provided by the managers.

Interview participants’ formal educational qualifications covered a range of discipline areas: accounting (LG1, LG5, SF1, SF2 & BF5), economics (BF1), medicine/health (BF2 & BF3), law (SF4), and public administration (LG2, LG3 & LG4), although three managers (SF3, SF5 & BF4) possessed no formal qualifications. Only five (33%) of the interviewees had previous employment experience in the private sector, principally in Chartered accountancy firms, making the remaining interviewees long-term, career public servants. Eleven (73%) managers had spent in excess of ten years working in the public sector, and four of these more than twenty years. On average, managers had spent 17.5 years in the public service. In terms of their current employment there were ten (67%) executive managers, three (20%) middle managers and two (13%) operating managers.
The interviewee and organisation characteristics reported above illustrate the effectiveness of the maximum variation sampling strategy adopted, producing a wide and heterogenous range of participants and organisations.

Following sections of this chapter provide an analysis of documentary, observational and interview data from the case, and of data derived from the depth interviews, thematically organised according to human behavioural issues, organisation operations and operating environments, formal organisation systems, and non-financial factors in outsourcing decision making.

4.4 Thematic overview

This chapter presents the results of an inductive, qualitative investigation of the role of costs in making outsourcing decisions in the Australian public sector organisations described earlier. The case study research provided acute, concrete and specific examples of the role of costs in outsourcing decision making within one such organisation. The case study assisted in the identification of a number of critical issues or themes and the themes emergent from this investigation were then assessed for applicability in broader contexts. While the information-rich case concerned one organisational context, the depth interviews examined how the issues and themes could be generalised across other settings. Thus, the case built the themes while the interviews crosschecked these themes on a broader basis contributing to a further and fuller understanding of the issues, the fleshing-out of the themes and the illustration of thematic similarities across organisational contexts. As well as contributing to answering the primary research question, both the case study and depth interviews informed and were incorporated into the quantitative aspect of the research discussed in Chapter 5.

Several critical themes or issues were identified through analysis of the case organisation and which conform to Cummings' (1982) framework for decision analyses. Briefly, Cummings (1982) suggests that there are four levels of analysis for dissecting and understanding the complexity of decisions. These levels are the individual person, groups of individuals, the organisational level, and the wider environmental level. Similarly, Finlay and King (1999) assert that the sourcing decision cannot be fully understood without consideration of the special features of the decision, and of
environmental and organisational factors in particular. Consistent with these levels, the main themes developed and illustrated throughout the following discussion are:

- **outsourcing and human perceptions, behaviour and relations within organisations** (individual and group behaviours);
- **outsourcing and organisational context** (organisational & environmental levels);
- **outsourcing and organisational systems** (organisational level); and,
- **outsourcing objectives** (combined levels).

Within the first theme of individuals and groups, human behavioural aspects were found to be of importance in enriching understanding of how internal organisational politics, goal incongruence and opportunistic behaviour affect outsourcing decision making in public sector organisations. Secondly, the operations of an organisation and the broader environment within which it conducts those operations provide insight into why particular outsourcing decisions are made. Examination of the third and fourth themes provides a deeper understanding of the role and uses of costs and cost information in terms of both how and why organisations make particular outsourcing decisions. The third theme investigates the formal systems of organisations, with emphasis on Management Accounting Systems (MAS) and costing systems. The final theme looks at the other, non-financial factors involved in making outsourcing decisions.

Rather than focusing strictly on how the qualitative data could be applied to answer specific research propositions, the outcomes of the thematic analysis are instead applied to inform and clarify the research propositions and the multi-theoretical model.

### 4.5 Outsourcing: Human behavioural factors

The role and impact of individual and group perceptions, aspects of human relations and other human behaviours within organisations on the process by which outsourcing decisions are made, was the first major theme or issue which emerged from the conduct and analysis of the case study. Within this broad theme several aspects of individual and group behaviours were apparent. These included individuals' perceptions of the importance of the cost savings objective in outsourcing decision making, and the roles and impact of personal and interpersonal politics, goal incongruence, and opportunism in making outsourcing choices. The validity and impact of these human behavioural issues in outsourcing decision-making were reinforced by the depth interview results.
The review of literature in Chapter 2 demonstrated the overriding importance ascribed by governments to the cost savings objective of outsourcing and this objective was claimed by all but one of the twelve case organisation informants to be the goal of outsourcing in the organisation. However, further analysis of the decision process and the actual outsourcing decisions made in the Foundation highlighted a very clear distinction between the cost savings objective perceived by organisation managers and the actual objectives pursued by those managers in making outsourcing decisions. In practice, different Foundation decision-makers pursued different goals (as detailed in sections 4.5.2 to 4.5.4) and often those goals were transaction dependent (as detailed in section 4.7). That is, not only did different decision-makers possess different goals or goal sets, but individual’s goals also varied according to the task or service being considered for outsourcing.

Depth interview data revealed that only five (33%) of the fifteen managers from other public sector organisations believed cost savings to be the objective of outsourcing by their organisations. Six (40%) managers believed multiple objectives were pursued in outsourcing, rather than a single, primary objective. Other managers believed the main objective of outsourcing was to acquire specialised or technical expertise and staff for their organisation, largely irrespective of cost economy concerns.

Despite what case organisation and other interview participants perceived as being the primary reason or reasons why they make outsourcing decisions, their actual behaviours in outsourcing decision making are often at variance with their claims. In summarising some of the facets of organisational decision making, Griffin (1993, p. 220) contends:

\begin{quote}
Political activities by coalitions, managerial intuition, and the tendency to become increasingly committed to a chosen course of action are all important. Risk propensity is also an important behavioral perspective on decision making. Finally, ethics also affect how managers make decisions.
\end{quote}

Each of these aspects of organisational decision-making; politics, gut feeling, risk, and ethics, were evident in the case organisation and in most of the other organisations from which the depth interview participants were drawn.
4.5.2 Personal & interpersonal politics

In the case organisation several appointees to the Governing Board of the Foundation represent environmental interest groups and some staff positions are also concerned with the ecological and environmental impact of the organisation’s activities, particularly its outsourcing activities. Several managers noted that while they saw no contradiction between the organisation’s environmental preservation objectives, and its self-funding nature, the task of seeking to reduce costs through outsourcing was often made difficult because of the strong pro-environmental attitudes of many Board members. These attitudes are countered by another smaller ‘faction’ of the Board that views pursuit of commercial objectives as extremely important, not however from a funding perspective, but from a political perspective.

This smaller faction sees activities such as outsourcing, not so much as financially sound options, but as means for demonstrating ‘efficiency’ to the Minister. Managers alluded to instances of strong clashes between Board members, and between Board members and managers, creating tension and animosity at some meetings and discussions. Trade-offs and compromises in decision making appeared to be difficult to achieve, and usually environmental interests won out.

The dominance of environmental interests is reinforced by the Foundation’s organisation chart which evidences the isolation of the Commercial Development Management function from other functional areas, especially from the Environmental function, and also highlights the significance of the Environmental function at Executive Management level. Other investigations\(^4\) during the course of the research revealed that these relationships existed because of various power and political tensions between organisational actors.

Politics; internal, external and party-based, proved to be one of the most important variables affecting the case organisation’s management and operations, including those related to outsourcing. During interviews, questions concerning managers’ personal party political preferences were not asked. However, in nearly all instances, participants volunteered information about these preferences. One manager, who was unhappy at the time with the politics in the organisation, stated that ‘government business units need to run as a business not as a wing of any given political party’.

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\(^4\) These investigations included interviews and observations of staff meetings.
There was strong evidence of tension between managers resulting from their personal party political views and the influence of these views on how they regarded both the philosophy and practice of outsourcing.

For all but one of the managers interviewed, their attitudes toward outsourcing appeared to be coloured by their party political affiliations. Those with acknowledged Labor, Democrats or Greens preferences generally had negative attitudes toward outsourcing, while those with Liberal-National party preferences had positive attitudes.

Despite the differences in attitudes toward outsourcing and their correspondence with managers' party politics, neither those with positive or negative attitudes toward outsourcing actually behaved in a manner consistent with their perceptions or claims of the importance of costs in outsourcing decision-making. The group with espoused Labour/Democrats/Greens preferences appeared to be concerned about 'keeping the Minister happy', making a contribution to local employment, or ensuring that ecological and environmental concerns were addressed, and saw outsourcing only as a last resort to achieve these ends. While managers with opposing political views generally had more commercially-focused outlooks, they too seemed to behave as though costs were relatively unimportant in outsourcing decision making, although for quite different reasons. This group of managers tended to view outsourcing as a means for eradicating organisational 'problem areas', be they staff or services, reducing the workforce (especially in the organisation's off-season), and decreasing labour union power.

4.5.3 Making decisions

The previous two sections of this chapter have established that human perceptions and individual and group behaviours can affect the way outsourcing choices are made. Research Proposition 2 suggested that 'outsourcing decisions of Australian public sector organisations reflect a bounded rationality model of choice, contained by public sector political imperatives'. In the Foundation, bounded rationality is not the decision model applied. Politics played a key role in decision making in the organisation, and the political imperatives were generally internal to the organisation. Although the Foundation has an explicit mission, its outsourcing decisions were characterised by a lack of formalised goals, by a dominant and powerful, pro-environmental coalition which acted self-interestedly, and by variable criteria (see section 4.7) selectively
applied to particular decisions. This approach to decision making is consistent with the political model of choice (defined and discussed in section 2.3.3).

While all case informants noted that there were no strong external political pressures on the organisation to engage in outsourcing, some Board members felt that outsourcing was a means by which to demonstrate efficiency to the relevant government Minister. It was, however, difficult to determine if such action was intended to be in the best interests of the organisation or was aimed at attaining personal kudos and praise from the Minister, particularly considering that Board members are political appointees. Either way, there is nevertheless some pressure on the organisation's decision-makers to satisfy higher powers, and consequently an external political influence, either real or perceived, on outsourcing decisions made by the Foundation.

A further external complicating factor in the Foundation's case is that the self-funding requirement and conservation objective set for it by government which are, despite what organisational managers said, inherently contradictory in practice. The organisation is involved in a precarious balancing act concerning these conflicting objectives and consequently finds it almost impossible to satisfy either one of them, let alone both. Dominant decision-makers in the Foundation perceive that engaging in outsourcing increases risk and environmental hazard. However, their disinclination to outsource may also increase the organisation's costs and be responsible for the declining financial performance of the organisation (discussed in section 4.9.1). This, in turn, threatens the government requirement for the organisation to be self-sufficient.

Outsourcing decision process descriptions obtained from eleven out of the fifteen managers in the other public sector organisations also matched well with the principles of the political model of choice. Generally the politics described were internal to the organisations, and concerned the uses of power, bargaining and tactical manoeuvring by managers, groups and sections within the organisations. Only two organisations, both in the local government sector (LG3 and LG5), came close to reflecting the bounded rationality model. Two other organisations followed decision models which, in the words of their managers, resulted in 'dabbling' (BF3) and making 'minor incursions' (SF5) into outsourcing, and which aligned with a muddling through or disjointed incrementalism approach.
Not one organisation had any standard operating procedures (SOPs) to cover outsourcing decision making, except in the very simplest of situations. Rothery & Robertson (1995, p 215) submit that the key documents in outsourcing decision ‘methodology’ consist of the feasibility study, service definition, service level agreement (contract), transition plan, and review procedures. In all organisations studied (including the case organisation), at most, two of these documents existed for any given outsourcing decision. Often the only formal documentation relating to outsourcing decisions were the actual contracts. Each outsourcing decision was, therefore, usually viewed in isolation, and the information needs, information searches and formal documentation and procedures to support these decisions were inconsistent, varying on a case by case basis within and between organisations.

However, unlike the case study organisation in which there appeared to be some outside pressure to outsource, only some of the managers who took part in the depth interviews pointed to external political imperatives. For example, only one of the organisations (LG3) was subject to Compulsory Competitive Tendering (CCT) legislation.

4.5.4 Goal incongruence & opportunism

Data from the case organisation, and reported previously, suggests that the party politics of managers is an important human factor affecting outsourcing decision making in organisations. In addition to this factor, several other human factors emerged on the basis of the case study and depth interview data. These other human aspects represent functional and dysfunctional behaviours which can impact on organisations achieving cost economising outcomes through outsourcing.

The chief issue considered in agency theory is how best to structure the relationship between agents and principals, particularly in light of agents’ presumed self-interested behaviour. Where central government is viewed as the principal and organisation management as agents (as discussed in section 2.4.1), the dominant pro-environment coalition in the Foundation can be seen to act self-interestedly, although it is not so simple to determine if their self-interested behaviour has dysfunctional consequences. Given that the organisation has both an environmental mandate and a commercial one, it appears that the coalition’s behaviour is functional in respect of the former mandate, but much less so for the latter.
In terms of opportunism (self-interested behaviour with guile), the case highlights the possible opportunistic actions of organisational managers and the opportunistic actions of at least one unscrupulous outside supplier. For example, Foundation executive management suspects that some middle managers manipulate the time sheets of workers in order to adhere to budgetary limits for particular line items (see section 4.9.1 for further details). The organisation has also suffered financially as a result of at least one contractor’s corrupt behaviour (see section 4.7.3 for further details). However, the effects of opportunism on the case organisation depend on degrees. That is, whether the degree of opportunistic actions by outsiders is less than that of insiders (managers). Either way, the internal and external contracts in this organisation often do not ensure that agents act in the best interests of principals.

On the issue of goal incongruence, rather than inviting Foundation manager informants to disclose their personal goals, which could produce reactivity and biasing effects, each informant was asked to specify the organisation’s set of formal goals, their personal goals for the organisation, and what they perceived were other Board members’ and managers’ goals for the organisation. All informants gave similar statements concerning the organisation’s formal goals, being both environmental conservation and self-funding operations objectives. Individual informant’s personal goals for the organisation ranged along a continuum from meeting traditional ‘public service’ objectives, through to more commercially oriented objectives, such as profit maximisation. Most informants felt that other managers had different goals for the organisation compared with their own.

These varying goals, together with the political tensions existing between organisational actors, suggest that there is a good deal of goal incongruence in the organisation. In terms of outsourcing, all but one of the informants felt the goal was to minimise costs. However, in comparing these perceptions with actual outsourcing decisions made (discussed in section 4.7), it emerges that while the popularly believed goal of outsourcing in this organisation seems to be cost reduction, this goal is neither the predominant one, nor actively pursued. There is thus also incongruence between managers’ stated goals and the goals pursued in actually making outsourcing decisions.

While the human factors of opportunistic behaviour and goal incongruence were examined in the case study, these variables proved less amenable to investigation on the
basis of a single depth interview with one manager from each of the other public sector organisations. Goal incongruence and opportunism were therefore examined only in a restrictive sense specifically in relation to outsourcing.

To obtain preliminary information concerning goal incongruence, managers of the fifteen other organisations were asked if they believed their views on the benefits and disadvantages of outsourcing were similar to those of other managers in their organisation. They were also asked if they believed their views accorded with the explicit or accepted organisation mission in outsourcing. The least disparity or incongruence in outsourcing goals applied to the local government sector. Generally, the local government managers perceived other managers had similar views on outsourcing, and that these views accorded with the organisation’s overall goals and outsourcing mandate. Few of the budget-funded organisation managers saw goals similarly, and not one of the self-funded organisation managers believed that others in the organisation shared their views or that organisational policy and mission reflected their views. The self-funded organisation managers invariably pointed to ‘conflict in the organisation’ (SF2) or the existence of a ‘range of opinions’ (SF5) within the organisation.

Even though local government and some budget-funded managers did not perceive disharmony within their organisations, a number of them were nevertheless affected by political influences. These managers felt a need to ‘toe the line’ and have an opinion which ‘depends on the government of the day’ (BF4), outsource according to ‘the flavour of the month’ (BF3), and ‘satisfy CCT legislation’ (LG3). These views point to internal and external political concerns shaping outsourcing decision-making.

This comparison of individual managers’ goals to those of other managers within their organisations suggests that goal incongruence exists in some public sector organisations. The only pattern detected in terms of the propensity to outsource compared to the apparent level of goal incongruence was within the local government sample. Contrary to TCE predictions, local government interviewees, who appeared to have the least goal incongruence, were employed in organisations that generally engaged in more outsourcing than either the budget-funded or self-funded organisations.
Further, little support was found for the contention that outsourcing is more likely when opportunities for opportunistic behaviour are low. Opportunism, whether within or without the case organisation played a relatively insignificant role in outsourcing decisions. Within the depth interviewee sample, several managers pointed to the suspected opportunistic actions of contractors in instituting price hikes after contracts were secured. Usually the managers put this down to poor contract specification (BF2, BF4 & SF4), although one manager believed that contractor price hiking was endemic (BF1). Nevertheless, perceptions of opportunism did not appear to minimise outsourcing in these organisations. Rather, more negative views concerning the opportunistic actions of contractors were associated with organisations that had a greater propensity to outsource.

The preceding analysis concerning goal incongruence in outsourcing also underscores the applicability of the ‘political/competitive model [of decision making] ... which highlights that different participants in the decision process often have different goals’ (Huber 1982, p. 255).

4.6 Outsourcing: Environmental & organisational factors

In addition to the influence of human perceptions and behaviour on outsourcing decision making, organisational and environmental factors also have a part to play in creating atmospheres and contexts within which outsourcing decision making occurs. As the organisations investigated via case study and through the depth interviews operate in the public sector rather than the private sector, this macro-environment was found to impinge upon and affect outsourcing, and costing for outsourcing. Additionally, the nature, operations and even the locale of the organisations studied also appeared to affect the way outsourcing decisions were made and the types of outsourcing which were or were not undertaken. Finally, specific types of outsourcing contracts and transactions presented their own distinctive prospects and problems for the organisations concerned.

4.6.1 Government intervention & initiatives

A number of complicating factors in the case study organisation's external and internal environments were noted earlier and impact significantly on its outsourcing decision making activities, and on the use of costing information in engaging in those activities.
In the wider organisational context, since the Foundation is a public sector organisation it is inevitably bound by more conditions, regulatory requirements and reporting obligations than most of its private sector competitors. It was noted that the involvement and interest of government regulators in the Foundation and its operations often conflicts with the profit-seeking, self-funding nature of the organisation. The Foundation thus has problems operating on a fully commercial basis and in seeking competitive or strategic advantage in the marketplace. Similarly, many of the government regulations and directives affecting the Foundation focus more on the conservation and environmental responsibilities of the organisation, and are often difficult to balance, in practice, with the organisation’s commercial mission.

Data collected from the Foundation confirms the influence of recent public sector reforms. A number of privatisation reforms including user-pays systems, load shedding, private competition, and alternative delivery systems, as well as outsourcing, were discussed in Chapter 2. The purpose of examining the impact of these reforms was to emplace the organisation’s outsourcing activities within the broader context of government-promoted organisational change and innovation. The Foundation applies a user-pays system and is subject to competition from the private sector, although when asked about load-shedding reforms one manager responded by saying:

we certainly haven’t shed anything, if anything we’ve probably taken on politically oriented activities ... we used to be a non-political organisation, but in recent times we’ve become very much a part of the Minister’s sphere of activities. We spend a lot of time looking after the Minister and their department.

Whether by adopting reforms or not, external political influences are evident in shaping this organisation and its operations.

In the depth interviews, managers from other public sector organisations were also asked a variety of questions concerning recent public sector reforms. Respondents from local governments and organisations in the budget-funded, health services sector appeared to have had most experience with implementing other (non-outsourcing) forms of privatisation in the last five years. In these organisations there was significant evidence of adoption of user-pays systems (eg. LG2 for water usage), load shedding (eg. downsizing and amalgamations in LG3) and competition from the private sector (eg.  

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5 Based on information disclosed in relevant legislation and government publications, the case organisation’s Annual Reports and Strategic Plan, and interview data obtained from organisation managers.
from private hospitals and health providers in BF2, and in local real estate development and sales in LG2). Five budget-funded and self-funded organisations also used alternative delivery systems for the provision of services, such as community managed programs; although none of the local government organisations had done so.

While some organisations had adopted these innovative practices, all fifteen organisations had at one time or another engaged in outsourcing. Consequently, of all the various privatisation reforms, outsourcing was the most broadly adopted. While all organisations had been encouraged by government policies to engage in outsourcing, only three of the fifteen organisations were bound by CCT requirements, and only one (LG3) by CCT mandated through legislation. In terms of the effect of CCT on this organisation, the manager felt it was negligible because in-house provision was generally efficient. He did, however, stress that the mandatory requirement to put operations up for tender is time consuming, as are the associated compulsory reporting requirements\(^6\) of the council’s CCT activities. This raises the question of whether CCT might unnecessarily increase the internal transaction costs of public sector organisations, particularly of those that are already efficient.

4.6.2 Outsourcing experience

While all organisations studied engaged or had engaged in outsourcing there was considerable variation in managers’ outsourcing experience in the public sector in general and in their employer organisation, as well as in managers’ ratings of the levels of adoption of outsourcing in their organisations. Managers’ outsourcing experience, together with the level of adoption of outsourcing in organisations represents an important convergence point between human experiential factors and organisational experiential and environmental factors. Managers’ experiences may affect the direction and environment of the organisation, just as the organisations’ cumulative experiences and atmosphere may affect managers’ behaviours and actions.

While the Foundation outsourced a number of tasks and services (see section 4.7), the outsourcing experience of its managers was limited. Most managers possessed only one or two years outsourcing experience and only three (25%) of the twelve managers

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\(^6\) For example, each Victorian local government council must include National Competition Policy statements in their published annual reports, which detail, *inter alia*, council’s compliance with competitive neutrality requirements, with CCT requirements, and with the competition code (under Trade Practices).
interviewed had experiences to draw on from prior employment in other organisations. This contrasts with the wealth of outsourcing experiences of managers from the other fifteen organisations studied.

One of the depth interview managers (BF1) had twenty years of outsourcing experience, and two other managers, both from local governments (LG2 and LG5), each had in excess of ten years experience. Four managers had one year or less experience with outsourcing in the public sector and the mean public sector outsourcing experience of the fifteen participants was 5.7 years. Generally managers of local government organisations had the most outsourcing experience (mean 8.1 years), and managers of self-funded organisations, the least (mean 1.5 years). In terms of outsourcing experience in their current organisations, the mean experience of the fifteen managers was 3.5 years. For nine (60%) managers, their entire outsourcing exposure was derived solely from their current employer organisations.

To provide some referent for interpreting managers’ exposure to outsourcing in their current organisations, they were asked to rate their organisations’ adoption of outsourcing on a three-point scale (active, neutral, reluctant). In addition to rating organisational adoption of outsourcing, managers were also asked to rate their personal view of outsourcing on a similar three-item scale (positive, neutral, negative). Results of these ratings, classified by organisation type, are presented in Table 4.3.

**Table 4.3 Outsourcing: Adoption levels and attitudes**

<table>
<thead>
<tr>
<th>Organisation Type</th>
<th>ID</th>
<th>Rating of organisational adoption</th>
<th>Rating of personal attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local government</td>
<td>LG5</td>
<td>Active</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>LG3</td>
<td>Active</td>
<td>Negative</td>
</tr>
<tr>
<td></td>
<td>LG1, LG2, LG4</td>
<td>Reluctant</td>
<td>Negative</td>
</tr>
<tr>
<td>Self-funded</td>
<td>SF2, SF3, SF4</td>
<td>Reluctant</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>SF1, SF5</td>
<td>Reluctant</td>
<td>Negative</td>
</tr>
<tr>
<td>Budget-funded</td>
<td>BF1, BF2</td>
<td>Active</td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>BF5</td>
<td>Active</td>
<td>Neutral</td>
</tr>
<tr>
<td></td>
<td>BF4</td>
<td>Neutral</td>
<td>Negative</td>
</tr>
<tr>
<td></td>
<td>BF3</td>
<td>Reluctant</td>
<td>Neutral</td>
</tr>
</tbody>
</table>

Based on managers’ perceptions, Table 4.3 indicates that outsourcing is perceived as being adopted most actively by budget-funded organisations, less so for local governments and least of all for self-funded organisations, where all managers rated their organisations as reluctant to engage in outsourcing. Personal attitudes toward
outsourcing were most positive, on balance, for the self-funded organisation managers, least positive for local government managers, and mixed for the budget-funded group.

Table 4.3 also illustrates that with the exception of four cases the perceived level of organisational adoption of outsourcing corresponds with managers’ attitudes towards outsourcing, such that the higher the adoption rating, the more positive the manager’s attitude. While there is a correspondence between these ratings, causation cannot be inferred. As stated earlier, managers’ attitudes may affect the extent of organisational outsourcing activity or vice versa and there may be other factors affecting both adoption levels and attitudes. Nevertheless, the correspondence between the two ratings illustrates a confluence of human factors and organisational contextual factors.

This confluence was further investigated within the context of the broad sweep of government-initiated public sector reforms, including outsourcing, by asking interviewees whether they believed a public service or social objective, or a cost savings objective was more important for public sector organisations. Seven (47%) managers felt that social and service objectives were the priority, seven others believed that both objectives were equally important, and one manager (BF2) felt that cost minimisation might predominate. However, twelve (80%) of the managers believed it was possible to meet both social/service and cost economy objectives by utilising outsourcing. A number of these managers stressed that the two objectives were not mutually exclusive. The remaining three (20%) managers were less convinced that outsourcing could advance achievement of both objectives. One manager (BF2) believed it less likely that outsourcing would save costs in respect of human services (such as health and welfare), another (LG2) that ‘economic rationalism occurs only at the expense of customer service’, and the third (SF1) that many core social services could not be provided via outsourcing, or not for reasonable cost. Thematically, these dissenters make two main points: (1) that several public sector services may be incapable of cost-effective outsourcing and/or (2) that service quality may decline with outsourcing. Both these points are strongly reinforced by Walker and Walker (2000) in their critical assessment of outsourcing in the Australian public sector.

To better understand the themes of how managers’ opinions and actions, and organisational operations and the external environment, in particular, drive or shape outsourcing activities, several further analyses were conducted, including:
• a contract by contract analysis of outsourcing activity in the case study organisation;
• a further analysis of these contracts vis-à-vis a range of transactional factors, suggested by TCE to explain outsourcing activities; and,
• the extension of the case study findings concerning transactional factors to the environments of the depth interview participants’ organisations.

4.7 Service-type factors

Basic characteristics of all thirteen planned, current and historical outsourcing activities of the case organisation are presented in Table 4.4. Precise dollar values of most current and planned contracts are either not to be publicly reported or are not known, and so a dollar range for contract value is provided in the table.

Table 4.4 Characteristics of outsourcing activities & decisions

<table>
<thead>
<tr>
<th>Service category &amp; type</th>
<th>No. activities</th>
<th>Temporal orientation</th>
<th>Approximate contract value in dollars ($,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Repairs, maintenance &amp; minor construction</td>
<td>4</td>
<td>Three current One planned</td>
<td>One current &lt; $10,000 annually One current = $10,000’s annually One current = $100,000’s once-off Planned = $100,000’s once-off</td>
</tr>
<tr>
<td>2. Facilities operation &amp; management</td>
<td>2</td>
<td>One current One planned</td>
<td>$100,000’s annually Unknown</td>
</tr>
<tr>
<td>3. Information technology</td>
<td>2</td>
<td>Two past One planned</td>
<td>$10,000’s each, both once-off</td>
</tr>
<tr>
<td>4. Payroll</td>
<td>1</td>
<td>One past</td>
<td>Unknown</td>
</tr>
<tr>
<td>5. Technical personnel</td>
<td>2</td>
<td>One current One planned</td>
<td>Current &lt; $10,000 annually Planned = $100,000’s annually</td>
</tr>
<tr>
<td>6. Garbage collection</td>
<td>1</td>
<td>Current</td>
<td>Current &lt; $10,000 annually</td>
</tr>
<tr>
<td>7. Construction project</td>
<td>1</td>
<td>Planned</td>
<td>Several $million, once-off</td>
</tr>
</tbody>
</table>

4.7.1 Repairs, maintenance & minor construction

An in-house team carries out most of the Foundation’s repairs, maintenance and minor construction activities. The main reasons why the organisation has not outsourced for more of this work are because of isolation of work sites and environmental impact. The organisation’s sites of operations are geographically isolated from pools of available contractors and many quotations received from contractors have been excessively priced as a result of travelling time and site access difficulties. For one of the activities included in Table 4.4, involving earthmoving, estimates received from contractors were approximately $200,000 more than expected. The manager securing contractors for this work found the experience typical, maintaining that:

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7 Information concerning the case organisation’s past, current & planned outsourcing activities was obtained from examination of documents including actual outsourcing contracts, Annual Reports, external consultancy reports, and internal management reports, as well as from interviews with the twelve organisation managers.
because of our isolated location, a lot of people will tender for jobs and say ... it's out of the way so we'll double the quote for what it really takes and if we get it, we get it, and if we don't get it, we don't care.

The second reason for retaining an in-house team is that managers believe the sensitive environment in which the organisation's sites of operation are located can best be protected by the closer supervision and monitoring facilitated when in-house personnel, rather than contractors, are used. One manager discussed the ecological impact of contractors pointing out that 'contractors are the biggest bone of contention because they've done a lot of damage' in the organisation's industry.

The planned outsourcing activity in this service category reached the stage of calls for tenders to undertake the job, but again dissatisfaction with tender quotes led the Foundation to instead trial the work using the in-house team. At the end of the trial, the work will be costed and the time taken analysed. This will then be compared with contractors' quotes and a decision made on whether or not to outsource for the remainder of the work. The costing of in-house work, however, will be based only on prime cost, ignoring any direct overhead costs incurred.

4.7.2 Facilities operation & management

The current facilities contract is a leasing arrangement for land, buildings and services provided directly to the public. The contract was entered into by the Foundation's predecessor organisation, which had formerly operated and managed the facilities itself. The contract is extremely long-term in nature and has proved to be quite problematic.

The contractor appears to be facing financial difficulties, and has been unable or unwilling to comply with various contractual obligations, particularly in respect of repairs and maintenance. Foundation staff raised concerns about the falling service standards of the contractor and the impact these could have on the Foundations' image and reputation, and customer/consumer perceptions. Senior management felt it likely that the contractor would seek to end the contract within the next year or two, at which point the Foundation would most likely put the facilities out to tender.

The other outsourcing activity in this service category will have negligible direct impact on the customer/consumer experience, but could be environmentally hazardous. Currently the facilities are maintained by both in-house and contractor repairs and maintenance staff. The main issue here is the degree of risk involved in outsourcing. A
shoddy contractor would have the capacity to irreparably damage the environment. As yet little progress has been made on deciding to fully outsource the activity.

4.7.3 Information technology (IT)
The Foundation had costly and unproductive experiences with both IT outsourcing contracts. One contract, costing several tens of thousands of dollars was in respect of accounting IT systems consulting. The Foundation manager most involved in this project felt the advice obtained was nothing that the organisation did not already know, and that some of the IT products suggested by the consultant were too expensive, unnecessary given the small size of the Foundation, and when implemented did not perform as expected or promised.

The other IT contract included the supply and installation of computer software and some hardware. This contract also ran into the tens of thousands of dollars and was unsuccessful for two major reasons. The first reason is the organisation’s dependence on the provider. The owner-operator provider fell ill, and, as one Foundation manager explained ‘it was very difficult to pick up the strands and get somebody else in place’. The second problem was a lack of probity on the contractor’s part. The Foundation spent in excess of $10,000 for a site licence to use a particular brand of software, only to find that they had received a few hundred dollars worth of software and no site licence. As a result of these IT outsourcing experiences, the Foundation now has an in-house IT manager.

4.7.4 Payroll
The payroll function was considered a good candidate for outsourcing by most managers, in part because of the poor software obtained through an IT outsourcing contract discussed above. One manager suggested the motivation for considering the outsourcing option was ‘because we seem to have spent a lot of money for the bloody software and one person seems to spend a lot of time doing it’.

In this case neither future costs nor sunk costs appear to be relevant in considering outsourcing; the main motivator is the inability of the software to perform as required. However, by the end of the case research, the organisation had decided not to go ahead with outsourcing the payroll function. In making this decision, the Foundation obtained informal estimates from external bodies and began to assess and compare these with in-
house costs. However, problems were encountered in assessing in-house costs, as summarised by an executive manager:

we didn't sit down and draw together all the costs that are relevant to it, because to do that ... we need to adapt our accounting system to enable us to draw out the information that's solely related to personnel and payroll.

The primary impediments to this outsourcing decision reaching the next stage, thus, included the inadequacy of the organisation's costing system, together with other management concerns about dependence on the provider for the long-term and loss of current, though limited, in-house expertise.

4.7.5 Technical personnel
The organisation currently outsources for technical, accounting advice. The in-house level of satisfaction with this advice is not high. One of the problems encountered concerned a valuation issue for which the contractor could not provide appropriate advice. When other external advice was sought, the contractor did not agree with it, and, in the end, an appeal had to be made to the Auditor-General, who did not agree with the contractor. Dissatisfaction with the contractor led to the appointment of an in-house Senior Finance Officer during the course of the case research. Management believed the in-house Officer might reduce the need to contract for external accounting advice in future, although the organisation is maintaining a rolling contract with the outside provider. One manager claimed that 'there is a lot of duplication that goes on ...a lot of the stuff we do employ a consultant for could actually be done internally'.

A large part of the decision to retain the consultant appears to be political in nature and assists in explaining the manager's reaction. Politics can give rise to such excessive or needless engagement of consultants:

Within the public service ... many senior managers have tried to protect themselves by hiring consultants to provide formal advice on all key decisions. Whatever savings might have been made from outsourcing, some part of those savings is being wasted elsewhere by managers who are, in effect, contracting out their own jobs (Walker and Walker 2000, p. 186).

There is a fourfold political dimension to the use of these consultants. Firstly, the use of such advisers can assist in better satisfying the relevant government department and minister that the organisation is making a best effort by seeking external, 'objective' advice. This lends weight to the organisation's accountability and reporting efforts and has potential to reassure external constituents. Secondly, using external accounting
advisers gives the appearance of adopting a modern, business-like approach, rather than traditional, bureaucratic approach to operating the organisation. Thirdly, the practice is looked upon favourably by Foundation Board members who may have issues regarding the technical expertise (or opportunistic behaviours) of managers, and lastly, the use of these advisers appears to increase the satisfaction of the organisation’s external auditors. However, in each case, it seems to be the appearance of having the advisory contract that is of importance, rather than the nature, quality or cost of the advice received.

The other outsourcing activity in this service category involves the alteration of arrangements with a group of existing technical personnel; changing from an employee-employer relationship to an external contractual relationship with these staff. The outsourcing option is considered for one explicit and one implicit reason. Explicitly, the organisation faces a highly seasonal operating cycle, and is currently bound to employ these personnel during the off-season. This is costly and reduces the organisation’s flexibility. The implicit reason is related to labour union difficulties that have arisen in the past in attempting to vary staff numbers or to dismiss poor performers. However, managers generally agreed that the labour union also poses a significant hurdle for the Foundation in attempting to outsource this function. There are other concerns as well, about outsourcing these staff, including ethical, probity, and training issues. As summed up by one Foundation manager:

you have to control it, you have no control over staffing [with outsourcing]. When it comes down to it I think we've got the best ethics, there's not enough expertise in the industry ... I think we're better equipped to train, select and know what the main things they [the technical staff] need to learn are whereas if you outsource, all these problems can occur.

4.7.6 Garbage collection

Within the last two years the Foundation outsourced for the removal of garbage from its main site of operations and managers are generally happy with the cost and contractor performance aspects of this operation. The main reasons for outsourcing the function were cost and convenience. The contractor was able to supply the service more cheaply based on a comparison of contract costs with the prior in-house, avoidable, direct labour and truck rental expenses.
4.7.7 Major construction

Currently plans are under way for a major construction project costing several million dollars. Because of the size and nature of the project, most of the work will have to be contracted-out. However, the potential environmental impact of the construction work has been cause for consideration of the use of an in-house team. As yet no decision has been made on which parts of the project will be contracted out. Uncharacteristically for this organisation, and because of the project's price tag, managers believe environmental issues will not outweigh cost issues in the outsourcing decision.

The collective contributions of the various factors which promoted or detracted from outsourcing by the Foundation are summarised later in this chapter in Table 4.9. While the current section of the Chapter has described each outsourcing activity and the reasons behind each decision, to better understand these activities and decisions requires further analysis in terms of a theoretical framework. The TCE transactional factors component of the multi-theoretical model driving the research provided the basis for analysing the case organisation's outsourcing, and for extending analysis to the other fifteen organisations.

4.8 Organisational context: Transactional factors

Chapter 2 listed a series of transactional factors that, according to TCE, predict the likelihood of outsourcing versus continued insourcing. Several of these transactional factors were considered based on case organisation and depth interview data.

4.8.1 Asset specificity

TCE suggests that where asset specificity is low, outsourcing may be appropriate. Asset specificity is a multi-dimensional variable that consists of physical asset specificity, human (staff) asset specificity and site (locational) asset specificity.

In the analysis of the Foundation's outsourcing activities presented in section 4.7 a high degree of site specificity, resulting from geographic isolation of the organisation's sites of operations was noted as factor making outsourcing of particular functions both costly and difficult. Human asset specificity also appears to affect the organisation in the manner suggested by TCE. Technical personnel tagged for outsourcing have not yet been replaced by contract labour; the level of expertise and ethical behaviour expected of staff fulfilling this function a prime reason for continued use of in-house staff.
Physical asset specificity did not appear to be a particular concern in the outsourcing activities analysed; however, three key Foundation managers were asked their opinions about outsourcing for activities which require highly specific physical assets. Management opinions on this aspect of asset specificity were somewhat diverse.

One manager felt that physical asset specificity affected outsourcing decisions in so far as the more depreciation accumulated in respect of an asset the more likely he would be to consider outsourcing, regardless of the actual physical condition or usefulness of the asset. This manager’s opinion illustrates a preoccupation with external financial reporting implications, and unnecessary consideration of sunk costs in decision making.

Another Foundation manager felt that physical asset specificity would reduce the likelihood of outsourcing, all the more so for assets or infrastructure of increasing rarity or specificity. The third manager believed high asset specificity made a function a more likely candidate for outsourcing as this could serve to rid the organisation of an asset which was not generalised and serviced only a particular task or function.

Each manager in the other fifteen public sector organisations was also questioned about how physical asset specificity affected their decisions to outsource. While one manager (BF5) thought that the level of asset specificity made no difference in outsourcing decision making, nine (60%) managers responded that increasing asset specificity led to a disinclination to outsource. However, five managers felt they were more likely to outsource given high asset specificity. These managers provided a range of reasons, including:

- consideration of outsourcing should not be constrained by what assets are possessed or required (BF3);
- outsourcing offers opportunities for the organisation to divest itself of expensive or task-specific assets (SF4); and,
- contractors generally have superior and newer assets (LG2 & SF4).

Considerations of site specificity were mostly limited to two regional, self-funded organisations (SF1 & SF2), although there appeared to be a linkage between lack of availability of contractors and rurally located organisations (eg. LG2). This observation also links in with considerations of competition, discussed further in section 4.8.3.
4.8.2 Performance ambiguity & complexity, environmental uncertainty & human asset specificity

In the case organisation there was consensus among managers that complex and ambiguous tasks would be less likely candidates for outsourcing than routine functions. So too, all managers agreed that with the introduction of environmental uncertainty outsourcing became less attractive. The managers provided identical reasons for reaching these conclusions: for complex tasks, service standards would be difficult to set, and monitoring of contractor performance would be hampered. The issue of increased risk as a result of increased environmental uncertainty was a further point raised by management. The actual outsourcing decisions made by the Foundation, and discussed in section 4.7, tend to reinforce these managers’ opinions, illustrating that the riskier the operation, the more likely it was to be retained in-house.

Managers of the other public sector organisations were also questioned about how human asset specificity and the complexity, ambiguity and technical nature of tasks and services affected outsourcing decisions. One manager (SF4) was indifferent, believing that complexity of a task or service had no effect on outsourcing decision making. Nine (60%) managers responded that increasing complexity made them less likely to consider outsourcing. Interview analysis revealed that managers were less likely to outsource under such circumstances because of:

- difficulties associated with performance measurement (SF5);
- data security issues (SF3);
- inability to accurately cost more complex services and tasks (BF4);
- higher risk resulting from contractors ‘making the wrong judgement’ (SF2);
- the need for a greater control over complex or ambiguous tasks (BF2); and,
- the ‘insider knowledge’ necessary to adequately perform such services (LG1).

Contrarily, there were five managers who were more inclined to outsource when task complexity and performance ambiguity were relatively high. In general, these managers (eg. LG2) felt that the expertise available externally was likely to be superior to that available in-house.

What was surprising about these results is that the local government managers, who had been less inclined to outsource under conditions of high physical asset specificity, were more inclined to outsource under conditions of high complexity and high human asset specificity. All budget-funded organisation managers interviewed were less likely to outsource given high complexity or human asset specificity, and yet of these managers
most were more likely to outsource where physical asset specificity was high. Again, results were mixed for self-funded organisations.

### 4.8.3 Recurring transactions & competition

TCE suggests that transactions of a non-recurring nature are more likely to be outsourced, although this may well depend on the idiosyncratic nature of, and performance ambiguity associated with, the task. The theory also maintains that outsourcing is more likely in competitive markets where there are large numbers of potential contractors from which to choose.

Many of the transactions outsourced or considered for outsourcing by the Foundation are recurring; however, they are also generally for routine, standardised or non-idiosyncratic tasks, such as repairs and maintenance, garbage collection and payroll services. The idiosyncratic functions outsourced or planned for future outsourcing were usually of a one-off nature.

Depth interview managers were asked about the types of services considered the best candidates for outsourcing. Responses are presented in *Table 4.5*, classified according to key themes, and disclosing frequency of response.

### Table 4.5 Types of services appropriate for outsourcing

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency</th>
<th>Examples**††</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High human expertise tasks</strong></td>
<td>47%</td>
<td>Services with high task variety (BF1), expert services (LG3, LG4, LG5, SF3, SF5), specialists (LG2, BF5).</td>
</tr>
<tr>
<td><strong>Routine tasks</strong></td>
<td>40%</td>
<td>Standardised, routine, discrete &amp; clearly identifiable requirements (SF5, BF4), manual work (LG1), tasks for which it is easy to measure performance (SF5), eg. payroll (SF3), garbage (LG3), maintenance (BF4), construction (SF3, BF4).</td>
</tr>
<tr>
<td><strong>Capital intensive tasks</strong></td>
<td>27%</td>
<td>Tasks with high capital costs (LG5, BF2), requiring specialised equipment, eg. medical diagnostic services (BF2).</td>
</tr>
<tr>
<td><strong>Costly tasks</strong></td>
<td>27%</td>
<td>High operating cost tasks (SF2), ‘anything a contractor can do cheaper’ (LG4, SF4), those tasks for which cost minimisation is sought (BF2).</td>
</tr>
<tr>
<td><strong>Short-term tasks</strong></td>
<td>27%</td>
<td>Non-ongoing tasks, one-off projects (LG2), seasonal tasks (SF1, BF1), variable load tasks (BF1), ‘jobs required to be done in a hurry’ (LG4).</td>
</tr>
<tr>
<td><strong>Non-sensitive tasks</strong></td>
<td>13%</td>
<td>Tasks not requiring special ethics (SF3), non-environmentally-sensitive work (LG3).</td>
</tr>
</tbody>
</table>

* Based on number of interviewees (out of 15) mentioning the service type or issue.  
** Taken from interviewee responses.
Chief among the service types identified (Table 4.5) as candidates for outsourcing were those requiring high degrees of human specialist or technical expertise, and also those relating to routine tasks, which poses something of a contradiction. Several managers mentioned that cost savings through outsourcing were only likely for functions or tasks categorised as capital expenditures, and not to those of a recurrent or operating nature. There were no obvious patterns in responses based on organisation type.

In terms of the competition variable, the Foundation has certainly experienced difficulties in finding appropriate pools of contractors, and has had at least one unsuccessful outsourcing experience (in respect of IT) as a result of such restrictions. In part, the restrictions on availability of contractors for the Foundation are a function of the organisation’s regional location and the isolation of specific work sites.

Several Foundation managers commented on how the location of the organisation impacted upon its outsourcing and on the availability of contractors. One manager believed that while the availability of contractors might be less, the potential for realising cost savings from outsourcing was greater in rural and regional areas, compared to metropolitan areas. His reasoning was there are more business opportunities for contractors in the ‘bush’, and more scope for developing economies of scale. Another Foundation manager contended that while there is ‘certainly less choice’ of contractors in country areas, potential cost savings might be greater if contractors were sourced from within the region, due to lower ‘rates, rents and overheads’ in regional areas. The reasoning of both managers tends to be at odds with the existing research, which suggests that not only are there less contractors available in regional areas, but that cost savings are also potentially much less as a result of lack of contestability (see, for example, Aulich & Reynolds 1993, p. 398: Hodge 1996). Furthermore, the analysis of the Foundation’s actual outsourcing decisions (provided in section 4.7) showed that while availability of contractors was limited, overcharging sometimes occurred. A clearer pattern concerning competition and availability of contractors emerged when the depth interviews data were analysed.

In general, interviewees from metropolitan organisations (LG3, LG5, BF2, BF4 & BF5) were satisfied with the availability, choice and cost of contractors, although rural and regional managers perceived relative disadvantages in terms of availability, choice and cost in comparison to their metropolitan counterparts. There was marked disparity in
views such that in comparison to metropolitan managers, regional managers rated organisational adoption of outsourcing lower, placed less emphasis on cost factors, and had less positive personal attitudes toward outsourcing. Metropolitan managers also perceived that their regional counterparts were relatively disadvantaged in outsourcing. The following comments, from both regional and metropolitan managers, are indicative:

- In metropolitan areas there are better contractors and more choice of contractors to cover the whole range of operations. There are more opportunities and thus metropolitan public sector organisations are more likely to outsource (SF2).
- There is less choice in regional areas, but ‘with technology, [problems related to] distance and spatial aspects become less important in outsourcing’ (BF1).
- ‘In really small towns, outsourcing can’t happen … outsourcing has a negative impact, local businesses suffer, and there’s a multiplier effect’ which further degrades regional economies (LG1).
- Outsourcing in ‘rural councils is quite different to metropolitan areas … taking away job opportunities for local people’. Councils need to provide services themselves to ensure that ‘local businesses remain open’ (LG2).
- In regional areas, the savings are less because of less competition among contractors. There is also less choice of contractors and contractors are of poorer quality because ‘the best don’t service the country’ (SF1).

It appears that site specificity and lack of available contractors or competition among them are possibly good explanations for the reluctance of many regional public sector organisations to engage in outsourcing. These factors also have potential to explain the importance, or lack of importance, of costs in outsourcing decision-making.

The case study and depth interview analyses presented above, address Research Proposition 4B, which argues that ‘the outsourcing decisions of Australian public sector organisations are influenced by transactional factors of asset specificity, performance ambiguity and complexity, uncertainty, and the competitiveness of markets’. The site aspect of the asset specificity variable and the competitiveness of markets variable were afforded particular importance by most informants. This information helped to focus and modify the multi-theoretical model, as detailed towards the end of this chapter. The results also suggest that some TCE transactional factors may be relatively more important than others in the practice of outsourcing decision-making. This possibility is tested in the quantitative research described in Chapter 5.
4.9 Outsourcing: Costing system factors

In addition to the discussion of organisational contextual and environmental variables presented above, the chief formal, internal systems, including the costing system, of the case organisation were examined in detail. The examination of major internal management and accounting systems in the Foundation assisted in explaining why costing information was afforded low importance in making outsourcing decisions.

4.9.1 Case analysis of systems

Each relevant, major organisational system of the Foundation was examined in terms of adequacy, based on the criterion of usefulness of the system for meeting the system objectives (Table 4.6). The executive managers and the researcher developed and agreed upon the overall assessments made of each organisational system. The assessment was conducted by reviewing system documentation (eg. accounting reports), gathering interview data (eg. asking managers how they rated organisational systems), and was validated by the key organisational informants.

<table>
<thead>
<tr>
<th>System</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial accounting system</td>
<td>Adequate</td>
</tr>
<tr>
<td>Cost accounting system</td>
<td>Inadequate</td>
</tr>
<tr>
<td>Budgeting system</td>
<td>Adequate, but out-moded</td>
</tr>
<tr>
<td>Strategic cost management system</td>
<td>Non-existent</td>
</tr>
<tr>
<td>Control system</td>
<td>Adequate, but problematic</td>
</tr>
<tr>
<td>Performance measurement system</td>
<td>Adequate</td>
</tr>
<tr>
<td>Pricing system</td>
<td>Inadequate</td>
</tr>
</tbody>
</table>

**Financial accounting system**

The Foundation's accounting systems are highly geared toward external financial reporting and the satisfaction of accountability obligations. According to managers, the system had been poor despite the Foundation having outsourced for accounting and accounting systems services (discussed in section 4.7.5). Recent major drivers of improvement were a switch to a full (rather than piecemeal) accrual accounting system and the employment of additional qualified finance staff. Both improvements occurred in late 1998 during the course of the case research. While the system is now adequate for reporting income and financial position, and for gaining favourable external audit opinions, the inadequacy of the underlying costing system is yet to be addressed.
Cost accounting system

There is virtually no costing system for internal reporting and decision making purposes. When one Foundation manager was asked to rate the organisation's costing system he responded that it was 'poor', and after further probing as to why he rated it poorly, he replied 'because there isn't one'. Inspection of documents confirmed this opinion. Nearly all cost accounting information is kept using the financial reporting chart of accounts utilising ACCPAC and some spreadsheet applications software.

The Foundation cannot accurately cost any of its functions or products individually and much of this problem appears to be due to difficulties in allocating costs. For example, there is a degree of unreliability in the Foundation's records in the separation of wages between those relating to capital projects and those that are operating expenditures. This problem renders reliable assessment of in-house versus outsource costs almost impossible. The organisation also has large common and governance costs; costs of running the Head Office alone amount to 20% of the organisation's total revenue and no attempt is made to allocate these costs to other divisions or to end products. The existence of such highly aggregated cost pools and cost allocation problems are symptomatic, according to Cooper (1987), of cost system failure.

The organisation has participated in some accounting system benchmarking studies with other public sector organisations in the same industry. The Foundation manager involved in the benchmarking exercise stated 'we've found ... throughout the State, we have by far the most comprehensive accounting system ... scary isn't it?'

Budgeting system

The organisation's budgeting system appears to be adequate for operational expenditures, but less so for capital works. A zero-based operating budgeting system exists in the organisation even though zero-based budgeting lost popularity in the 1990's and is criticised for being too introspective, and lacking usefulness in cost management and efficiency improvement (Langfield-Smith, Thorne & Hilton 1998).

In addition to the zero-based budget system, the Foundation uses global budget allocations. The global allocation provides managers with a single amount, instead of amounts prescribed for specific categories of expenditure or particular line items.
Global budgeting is a technique designed to promote devolution and flexibility in management decision making, especially in the public sector, and its principal effect should be of allowing ‘agency management to integrate personnel with expenditure decisions instead of being treated as an add-on’ (Funnell & Cooper 1998). However, in the Foundation the global budget applies to all operating expenditures other than salary and wages, thus undermining the purpose of global budgeting. A side effect of the system, according to one executive manager, has been ‘the suspected manipulation of time sheets and other cost allocations’ to ensure compliance with the budget. The manager believed that where budgeted amounts for operating wages were likely to be exceeded middle and line managers reclassified these as capital costs.

While capital budgeting is conducted, sophisticated techniques such as Discounted Cash Flow (DCF) or Net Present Value (NPV) analysis are not utilised and nor are simple techniques, such as payback period. A five-year rolling capital works plan exists, but is not used as a basis for capital allocation decisions. Key capital budgeting criteria appear to be qualitative, based on need and prioritisation of managers’ ‘wish lists’ at executive and Board levels. For capital works conducted in-house or to be outsourced, relevant managers, according to one executive, ‘work up their best guesstimate’. The only cost restraints on capital works are that works be linked to the depreciation rate so that annual depreciation costs are not ‘excessive’. Given that the organisation has recently been experiencing a decline in its financial fortunes, this practice again seems to reflect an overriding concern with the financial accounting profit or loss.

Cash budgeting is also rudimentary, probably because the business has had a large cash balance due to successful operations in prior years, and has not been hard-pressed for working capital. However, trends in cash balances disclosed in successive financial reports show that cash surpluses have been almost swallowed up over the last three to four years, and that losses of increasing magnitude, rather than profits, have also been experienced during this time frame. Increasing costs, rather than diminished revenues, appear to be the cause of cash and profitability slumps.

**Strategic cost management system**

Blocher, Chen and Lin (1999, p. 3) state that a cost management system includes ‘both financial information about costs and revenues, and relevant non-financial information about productivity, quality, and other key success factors for the firm’. The Foundation
has no formal strategic cost management system, and practices such as customer profitability analysis, target costing and activity based costing are instituted only on very ad hoc and technically unsophisticated bases. In interview, a senior manager stated ‘we don’t have a method of continually reviewing … the cost efficiency of any arm of our business … We’ve got the information, we can collect it and collate it, but it’s not used’. There is thus no means for strategically assessing the cost impacts of outsourcing versus insourcing for the organisation.

Control system
The control system is based largely on a comparison of planned and actual expenditures and is linked to both the budgeting and performance measurement systems. One senior manager was strongly of the opinion that middle and operating managers see budgets almost purely as control devices with little relevance to tactical and operational planning. Middle and operating managers appear to strive to meet the budget at all costs; sometimes engaging in dysfunctional behaviours, by intentionally misallocating costs to particular accounts in order to do so. Managers operate as though a budget-constrained evaluation style (Hopwood 1973) is used to monitor and assess their performance. Under a budget-constrained style data manipulation is often extensive, and this may well explain the suspected alteration of labour time sheets mentioned earlier. While the control system is used to monitor in-house costs, it is not applied to the assessment and evaluation of outsourcing decisions after the fact.

Performance measurement system
The Foundation’s performance measurement system draws upon the control system, whereby managers are accountable for variations from budget, but also features the use of non-financial information, such as customer visitation statistics and data obtained from customer feedback surveys. Performance is assessed by reference to a set of Foundation-specific KPIs and the organisation collects some non-financial information related to customer satisfaction with both in-house and outsourced services.

Pricing system
The pricing system is inadequate and is based, as one manager stressed, on ‘gut feelings’ rather than cost or market research data. Pricing decisions anticipate public reactions to price increases, with price differentiation between various products allowing the organisation to maintain greater control over visitation to particular sites.
Price is thus used to regulate demand and protect the natural resources, as well as raising revenue. Assessment of the financial or economic value of customers, whether by customer profitability analysis, or using ABC or DCF methods (Andon, Baxter & Bradley 2001), is not made.

Thus the differential costs of products, customers, or alternative methods of delivery of products are not considered. Lack of consideration of underlying cost and delivery mode differences are again indicative of cost system failure (Cooper 1987). There are no policies stipulating when or how prices should be reviewed and competitor's prices are not formally considered. Prices require the approval of the relevant Minister, which is dependent upon ensuring access and equity for the public.

4.9.2 In-house costs

The case analysis has shown that on several occasions, inappropriate costing methods were used in outsourcing decision-making by the Foundation. Illustrations have been provided earlier in the analysis showing instances where costing information has been used which ignored directly traceable overhead costs, or included sunk and unavoidable costs. Case research revealed that cost estimates for outsourcing were often developed by individual middle managers. When outsourcing was considered, the manager responsible for a task or function worked-up a cost estimate—finance managers and staff did not prepare cost estimates. Sometimes cost estimates were not developed at all. This finding is consistent with the MAB (1998) survey which revealed 'the high percentage of administrative staff providing financial information' resulting in 'the danger that different parts of the organisation will measure in different ways' (Morphett 1998, p. 36).

Case organisation managers were asked about the guidance consulted for developing cost estimates for in-house provision of services. Executive managers pointed to the relevant State government's costing and tendering guidelines\(^8\) as the source of costing methods used. However, middle managers who were developing cost estimates, did not know of any guidance available on how to cost in-house service provision, and consequently used their own methods. The lack of use of a set costing method or methods probably goes some way to explaining the variety of methods actually in use,

\(^8\) The guidance publication executive management cited was a 1997 State government policy document, and which was independently obtained and reviewed as part of the thesis research.
as well as the limited usefulness of this information. Foundation managers agreed that if better costing information were available, cost implications would be more important in making outsourcing decisions.

Costing systems for outsourcing decision-making were the key focus for analysis of depth interview data within the organisational systems theme. Initially, managers from the other fifteen public sector organisations were asked for a general rating of their organisation’s costing system and for their views on the discovery and error costs associated with that system. Initial ratings of their organisation’s costing system by the managers interviewed ranged from ‘exceptionally good’ (BF2) and ‘pretty tight’ (BF4) to ‘woeful’ (SF4) and ‘appalling’ (SF1). Five (33%) of the fifteen managers initially rated their organisation’s costing systems as ‘good’ (eg. LG1, LG5 & SF5) to ‘exceptionally good’, while ten (67%) rated their costing systems as ‘OK’ (eg. LG2, LG3 & SF3) through to ‘appalling’. However, ratings became less favourable after further questioning concerning whether functional areas or individual activities, outputs and services could be costed, and whether unit costs were available or could be calculated. Some indicative responses to this further questioning illustrate the inadequacies of the costing systems used in respondents’ organisations.

**My organisation’s costing system is:**
- Not very good. The system is backward looking, messy and untimely (BF1).
- Bad, but improving. Costs are traced to cost centres (BF3).
- Medium to good, but we don’t know product costs off-hand (LG1).
- Appalling. We don’t know what products or divisions cost. There is a lot of transfer pricing (SF1).
- Poor. There are no product costs and no demand for that information (SF2).
- OK, but could be improved. More effort is needed in ensuring all costs are identified and budgeted for (LG2).
- Exceptionally good, but we cannot cost a unit of service. Casemix costing is a problem (BF2).

Managers were also asked to consider if the discovery and error costs of their organisations’ costing systems were high or low. The natures of discovery and error costs were discussed in section 2.6.2. It proved impossible for all but one of the managers to attach a dollar tag to these costs, and so a ‘high’ discovery cost in one manager’s perception might be a low cost based on another manager’s perception. However, managers’ perceptions of the costs affect their decisions about the value of changing or improving costing systems. Overall, the consensus seemed to be that
systems perceived as having high discovery costs were unlikely to be drastically improved, regardless of whether the error costs were high or low.

Table 4.7 provides a cross-tabulation of ratings of costing systems compared to ratings of discovery and error costs for the fifteen managers interviewed, showing the frequency of particular responses.

<table>
<thead>
<tr>
<th>Costing system rating</th>
<th>Discovery costs</th>
<th>Error costs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Good</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Mediocre</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Poor</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 4.7 reveals few common patterns in perceptions of costing system adequacy compared to perceptions of associated discovery and error costs with the exception that better ratings of costing systems are generally associated with lower perceived error costs. While some poorer costing systems appear to be capable of relatively inexpensive improvement, others are not. Of concern is the observation that several organisation managers rated error costs as medium to low, despite having rated their organisation’s costing system as mediocre to poor (eg. LG2, LG3, SF2, SF3 &BF5).

The preceding report reveals several costing system inadequacies based on the interview data. Despite recommendations that strategic cost management and strategic information systems are necessary precursors to public sector organisations engaging in outsourcing (Cohen & Eimicke 2000), neither the Foundation nor any of the other organisations possessed such systems.

Other data and results also lend weight to the contention that cost information used in making these decisions is inadequate or inappropriate for the purpose. Eight (53%) interviewees stated that in making outsourcing decisions in their organisations, comparisons of in-house versus outsource costs are not made. Some of the reasons why cost comparisons are not made are:
• LG2 - prefers not to outsource, and only does so for a few tasks and services, which are ‘traditionally’ outsourced by local governments. Outsourcing is evaluated on the basis of quality, not cost.

• LG1 - outsources extensively, but cost comparisons or benchmarking exercises are never undertaken. The Council does not make cost comparisons, presuming instead, that cost savings will likely flow from outsourcing. The presumption is related to the size of the council (Shire population < 18,000), and the belief that such a small Council cannot achieve the economies of scale that contractors may enjoy by serving a number of different councils in the region. This presumption mirrors the findings of a Senate Committee (SFPARC 1998), critical of how some organisations had managed outsourcing, finding that ‘the prevailing ethos still seems to promote contracting out as a management option that will yield inevitable benefits’.

• For SF2, SF4 and SF5, in-source versus outsource cost comparisons are not made because there are no costing systems capable of accurately determining the in-house costs to perform a service.

• SF1 - the cost of outsourcing is not compared to the in-house cost of service delivery, as cost is not the issue. Rather, the removal of problem areas from management’s sphere of responsibilities, and the transfer of responsibility for failure to contractors, are the chief motivators for outsourcing. Outsourcing is also driven, in part, by the need to meet particular legislative obligations.

• BF3 - does not make comparisons between in-house and outsource costs as outsourcing is viewed, in the manager’s words, as ‘dabbling’.

Of the remaining seven (47%) organisations which do compare in-house and outsource costs, three organisations always make such comparisons, three often do, and one sometimes does. Of these seven organisations, three were local governments, three budget-funded organisations, and only one a self-funded organisation.

Chapter 2 presented a table of costing methods (Table 2.4) classified according to whether they were more or less likely to be appropriate in outsourcing decision making. The methods used by the seven organisations identified above were assessed based on these categorisations. Conclusions as to the appropriateness of the methods used have been based on an overall assessment for each organisation. The results of this assessment appear in Table 4.8 below.
Table 4.8 Costing methods assessment

<table>
<thead>
<tr>
<th>ID</th>
<th>Costing methods appropriate?</th>
<th>Costing methods used in outsourcing decision making</th>
</tr>
</thead>
<tbody>
<tr>
<td>LG3</td>
<td>NO</td>
<td>Short-term, full costs including allocated common, unavoidable costs. Sometimes cash-based NPV comparisons are made. Transaction costs rarely considered.</td>
</tr>
<tr>
<td>LG4</td>
<td>NO</td>
<td>Long-term, full, accrual costs &amp; cash-based (non-discounted) comparisons. Full costs include allocated common, unavoidable costs. Some transaction (monitoring costs) included.</td>
</tr>
<tr>
<td>LG5</td>
<td>NO</td>
<td>Long-term, full, accrual costs, including allocated common, unavoidable costs. Sometimes cash-based NPV comparisons are made. Most transaction costs included.</td>
</tr>
<tr>
<td>SF3</td>
<td>NO</td>
<td>Short-term, full costs only. Some transaction costs included.</td>
</tr>
<tr>
<td>BF2</td>
<td>NO</td>
<td>Short-term, full costs including allocated common, unavoidable costs. Transaction costs never considered.</td>
</tr>
<tr>
<td>BF4</td>
<td>NO</td>
<td>Short-term, full costs, including sunk costs (eg. depreciation). Transaction costs not considered.</td>
</tr>
<tr>
<td>BF5</td>
<td>NO</td>
<td>Long-term costs, including common, unavoidable costs.</td>
</tr>
</tbody>
</table>

Table 4.8 shows that most organisations include allocated common, unavoidable costs, and sunk costs in preparing estimates of in-house costs, and do not consider some or any transaction costs in evaluating external bids. The analysis of interviews presented in this section validates the importance of Research Proposition 6 which contends that ‘the costing methods used to determine in-house costs for use in making outsourcing decisions are inappropriate for the purpose’.

4.9.3 Transaction costs

In addition to determining the internal costs of producing or providing a service, outsourcing decisions should also involve consideration of the transaction costs, as well as the purchase/bid prices associated with external supply. The nature of transaction costs were discussed in Chapter 2, and include search costs, transition costs, and monitoring costs. The inability of the case study organisation to cost internal production was noted in the prior analysis (section 4.9.1) and, therefore, it was not surprising to find that the organisation does not consider the transaction costs of contracting with outsiders. Only a single manager in the Foundation specifically considered transaction costs in decision making, and, rather than seeing these as contract administration and monitoring costs, he tended to view them as costs associated with changing contract specifications. He adopted a heuristic approach to what he described as ‘hidden costs’ by adding a ‘fudge factor’ of 25% to contractors’ bid prices.
As previously noted, only seven of the fifteen other organisations made internal versus outsource cost comparisons, and of the organisations that made some assessment of transaction costs, search and transition costs were rarely included, although contract monitoring costs were more often considered. Two interviewees could not be explicit in terms of the type of transaction costs included, stating simply that ‘contract administration is factored in’ (BF4), or that a ‘factor for contractor price variations’ (SF3) was added to bid prices. Managers were not able to provide estimates of the contract-specific or total organisational transaction costs associated with outsourcing.

Several reasons were apparent for the lack of importance afforded costs and costing information in the organisations studied. The conclusions reached based on the case and interview data were that most of the organisations:

- have costing systems incapable of determining in-house production costs;
- fail to compare in-house costs with contractors’ bid prices, or use inappropriate in-house costing methods for making comparisons;
- fail to include any or all transaction costs; and,
- often fail to achieve cost savings through outsourcing.

The first three points listed above have been addressed in this section, and the final point is considered in the following section.

4.9.4 Cost savings evidence

While the qualitative evidence presented in this chapter suggests that some organisations do not cost their outsourcing decisions, it also demonstrates that some other organisations do attempt to do so. Regardless of the adequacy or appropriateness of costing methods used, it would nevertheless be expected that organisations which attempt to cost their outsourcing decisions would determine if the government-mandated cost savings objective was being achieved by making ex-post evaluations of the costs of outsourcing versus previous in-house costs.

The Foundation does not develop or use any information to substantiate whether outsourcing produces cost savings. In part, outsourcing has been conducted for reasons other than saving costs. Since the in-house cost is often not know, or has been only roughly estimated, where cost has had a role to play in an outsourcing decision, there is no relevant or reliable information for making ex post comparisons. Furthermore, Foundation middle managers responsible for working up in-house estimates claimed
that they did not make any *ex post* comparisons, nor were outsourcing decisions reviewed in terms of cost at executive management or Governing Board levels.

The depth interview data supported these case findings. Of the fifteen managers interviewed only two (13%) were employed in organisations that use a procedure for evaluating the cost of outsourcing decisions after the fact. Both organisations were in the local government sector (LG3 and LG5). Two other local government organisations (LG1 and LG2) conducted post-decision evaluations of outsourcing, but these evaluations were based on quality, not cost. None of the self-funded or budget-funded organisations conducted post-decision evaluations of outsourcing. However, several of the managers offered anecdotal evidence concerning contractor experiences, price variations and likely savings. A representative summary of their opinions and experiences follows:

- **LG2** - has had several bad experiences with contractors that resulted in the organisation having to dismiss the contractors, and resume provision using in-house resources. Based on rough cost estimates used on an *ad hoc* basis, some contractors appeared to be able to perform services much more cheaply than could be done in-house, while others (especially in the area of road works) were estimated to be twice as expensive as in-house provision.

- **LG3** - in some instances contractor costs became heavily inflated after the decision to outsource was made, but these decisions could not be reversed due to the legal costs involved. The manager of LG1 believed cost savings were generally not made and also cited legal reasons as the chief impediment to decision reversal.

- **LG4 & LG5** - contractor cost overruns are rare. Contracts are invariably met, do not exceed budget, and are completed by contractors in a timely fashion.

- **SF3** - while overall costs had increased as a result of some of the organisation’s outsourcing activities, ‘outsourcing is cheaper 90% of the time’.

- **SF4** - unable to determine if cost savings were actually made, but has been unable to reverse unsuccessful outsourcing decisions. Reversal has been hampered because of the penalty clauses in some contracts, the legal costs involved, and the experience that such disputes with contractors drag on for so long that by the time they are resolved the contract has expired.

- **BF2** - has had some ‘disastrous’ outsourcing experiences, and in every outsourcing decision made so far, contractors’ accepted bid prices have been exceeded due to poor contract specification and lack of up-front negotiations. Only infrequently have poor outsourcing decisions been reversed.

- **BF1** - while the organisation engages in outsourcing to a ‘large extent’, often cost savings are not made and more than 50% of the time contractors have underestimated their costs. This led the manager to conclude that contractors ‘systematically’ under-quote, enabling them to secure the work and then put excess charges down to contract variations or other factors.
Collectively, the (costing) systems thematic analysis brings several of the research propositions into sharper focus. Research Propositions 3, 6 and 7 concern the uses of costs in outsourcing decision-making and in substantiating if cost savings have been made. In addition to these propositions, two other propositions relating to organisation size and organisation type, level of government and location were presented in Chapter 2 as having potential to provide a better understanding of how costs are used. Both propositions thus address a mixture of the organisational context and costing systems themes analysed in the current chapter.

4.9.5 Costing information & organisation size

The Foundation is a very small organisation of its type. The size of the organisation and budgetary limitations provide some explanation for the inadequate costing system of the Foundation, and for the importance of factors, other than costs, in making outsourcing decisions in this organisation.

The role of costs and costing information in the organisations represented in the depth interview sample was canvassed in some detail in section 4.9.2 to 4.9.4. To provide a reference point for organisation size, survey questionnaire data (from Chapter 5) was consulted, and disclosed a median total budget for the 131 sampled public sector organisations of approximately $21.9 million. Using this figure to interpret the size of organisations in the qualitative interview sample reveals that seven of the fifteen organisations were larger than the survey median, and eight smaller, providing an appropriate mix of organisations of varying sizes.

There were some relationships revealed in the data concerning the importance of costs in outsourcing decisions compared to organisation size. For example, for local government and budget-funded organisations, costing systems were generally ranked more favourably as organisation size increased, as was the importance of cost and financial factors in outsourcing decision making. These larger organisations were also more likely to compare in-house versus outsource costs, and (for the local governments at least) to engage in ex-post evaluations of the costs of outsourcing. There were no such discernible relationships in respect of self-funded organisations.
4.9.6 Costing information & organisation type

Chapter 2 suggested that, in addition to the role of costs in outsourcing decision-making varying according to organisation size, it might also vary according to organisation type.

The depth interview analysis indicated that:

- internal organisation costing systems were perceived as most inadequate by managers of self-funded organisations;
- costing information was least important in the outsourcing decisions of self-funded organisations;
- comparisons of in-house versus outsource costs were least likely to be made in self-funded organisations; and,
- both self-funded and budget-funded organisations were least likely to evaluate the cost effects of outsourcing decisions after the fact.

Overall, local government organisation managers ranked their costing systems more favourably, their costing system error costs lower, and their propensity to compare in-house versus outsource costs higher than did managers from self-funded and budget-funded organisations. Consequently, the interview analysis appears to indicate that costs and costing information are more important in the outsourcing decisions of local governments than they are in budget-funded organisations, and are of least importance in self-funded organisations. However, given the small size of the interview sample (n = 15) it would be incautious to draw conclusions from this analysis. The larger sample of managers and organisations used in the survey questionnaire (Chapter 5) provides a more appropriate basis for reaching conclusions.

4.9.7 Costing information & jurisdiction & location

The literature review in Chapter 2 led to the further suggestion that structural and political differences, and, therefore, variations in the role afforded costs in outsourcing decision making, might also relate to jurisdictional and locality factors.

The Foundation and most of the organisations included in the depth interviews were located in NSW, and operated within State and local government jurisdictions (see Table 4.2). Consequently, the contention that location and jurisdiction may affect the role of costs in outsourcing decision making could not be investigated in full in the qualitative component of the research. However, the findings for local government organisations compared to budget-funded and self-funded organisations (see section 4.9.6), given that the latter two operate at State and Federal levels, are nevertheless suggestive of jurisdictional as well as typological differences. Observations concerning costs and the influences of locality have also been previously noted (section 4.8.3) and
illustrate marked differences in managers' perceptions concerning the cost economising potential of outsourcing in regional areas compared to metropolitan areas.

While firm conclusions based on the qualitative data and analysis cannot be drawn due to the restrictive nature of the samples, there is certainly justification for asserting that both location and jurisdiction are likely to affect the role and use of costs in making outsourcing decisions.

4.10 Outsourcing: Financial & non-financial factors

The fourth and final theme analysed concerned what drives organisations to make the outsourcing decisions they do, and what factors they consider important in making those decisions. In previous sections it has been shown that internal and external political pressures drive some outsourcing decisions and impact upon the way in which decisions are made. External political pressures from governments reinforce the importance of achieving cost savings from outsourcing. However, in both the Foundation and the other organisations studied through depth interviews, there appeared to be some degree of contradiction between the perceived cost savings objective of outsourcing and the real objectives of and factors leading to outsourcing.

For example, in the Foundation the most important objective in not outsourcing was related to environmental concerns. Outsourcing decision-making was dominated by these concerns, rather than by commercial, cost or efficiency objectives. These environmental concerns increased perceived risk for the organisation in outsourcing. As discussed in the literature review, some authors (for example, Chiles & McMackin 1996; Quiggin 1996; Awty 2001) suggest that risk, rather than cost, should be the prime determinant in outsourcing decisions. This normative view appears to be descriptive of practices in the case organisation.

The case analysis illustrated that a number of factors were far more important collectively, and sometimes individually, than costs and financial factors in making outsourcing decisions in that organisation. Several factors promoted outsourcing or consideration of outsourcing by the organisation, and numerous other factors detracted from it. An assessment of these factors is provided in Table 4.9. Importance weightings for factors were developed based on the number of instances (eg. outsourcing decision situations or contracts) in which the factor was considered.
Table 4.9  Factors important in outsourcing decisions – Case study

<table>
<thead>
<tr>
<th>Factors</th>
<th>Promoted Outsourcing</th>
<th>Discouraged Outsourcing</th>
<th>Importance Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Internal politics:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk-related factors</td>
<td>✓</td>
<td></td>
<td>High</td>
</tr>
<tr>
<td>Environmental impact &amp; issues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>External politics:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good ‘appearances’</td>
<td>✓</td>
<td></td>
<td>Moderate</td>
</tr>
<tr>
<td>Improved real or perceived accountability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cost &amp; financial factors</strong></td>
<td></td>
<td>✓</td>
<td>Moderate</td>
</tr>
<tr>
<td><strong>Contractor factors:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isolation &amp; dependence on contractor</td>
<td>✓</td>
<td></td>
<td>Moderate</td>
</tr>
<tr>
<td><strong>Staff-related factors:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expertise &amp; in-house knowledge</td>
<td>✓</td>
<td></td>
<td>Moderate</td>
</tr>
<tr>
<td>Labour union difficulties</td>
<td>✓</td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Need for staffing flexibility – seasonality</td>
<td>✓</td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Convenience factors – ease, routine task/s</td>
<td>✓</td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td><strong>Fraud, corruption &amp; probity factors</strong></td>
<td>✓</td>
<td>✓</td>
<td>Low</td>
</tr>
</tbody>
</table>

Table 4.9 provides seven main categories of factors that affected outsourcing decisions in the Foundation, and highlights that cost and financial factors played only a moderately important role in making those decisions. However, given that the organisation has a poor costing system and does not work up reliable cost estimates for making outsourcing decisions, the role of costs is perhaps somewhat overstated.

Interestingly, while some staff-related factors promoted the consideration of outsourcing in the Foundation, the main staff-related concern about outsourcing raised by most Foundation managers was the potential to rob the organisation of in-house knowledge and to reduce in-house research and development activity. Essentially this is a matter of loss of intellectual property rights through outsourcing.

The factors listed in Table 4.9 above became more distinct after the depth interviews were conducted. A range of factors was identified which contribute positively or favourably to the consideration of outsourcing. Using the same factor groupings, those factors regarded as contributing negatively or unfavourably to the consideration of outsourcing were also identified. These factors are summarised in Table 4.10.
<table>
<thead>
<tr>
<th>Factor grouping</th>
<th>Favoursibly considered factors (Ranking)</th>
<th>Unfavourably considered factors (Ranking)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staffing &amp; labour-related factors</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Cost &amp; financial factors</td>
<td>2</td>
<td>2-3</td>
</tr>
<tr>
<td>Quality &amp; customer-related factors</td>
<td>4</td>
<td>2-3</td>
</tr>
<tr>
<td>Contractor control &amp; performance factors</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Other factors</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

*Table 4.10* demonstrates that cost and financial factors were not the most important factors considered in outsourcing by the interviewed managers. Rather, staffing and labour-related factors contributed more in deciding to outsource. In deciding not to outsource, contractor-related factors were the single most important factor, followed by an essentially equal consideration of cost factors and customer factors.

Favourably and unfavourably viewed considerations in outsourcing decision-making, in order of frequency and importance within each factor group⁹, are listed in *Table 4.11*, together with relevant insights provided by interviewees.

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⁹ Note that some items have been combined within a specific factor grouping if participants ranked them equally important.
Table 4.11 Factors in outsourcing decision-making:

Depth interviews ⇒
### Table 4.11 Factors in outsourcing decision-making – Depth Interviews

<table>
<thead>
<tr>
<th>Favourably considered factors (Ranking)</th>
<th>Verbatim examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Staffing &amp; labour-related factors:</strong></td>
<td></td>
</tr>
<tr>
<td>• Better access to specialist expertise for complex &amp; technical services</td>
<td>Outsourcing is 'necessary to gain specialist expertise required' (BF5). 'Enables you to utilise greater variety of skills' (BF1). There is potential to get a wider range of expertise' (SF5).</td>
</tr>
<tr>
<td>• Greater ability to relieve &amp; shift workloads</td>
<td>With a fairly full program &amp; limited site staff, outsourcing is a way of freeing up . . . existing staff resources to follow the business plan/agenda that we already have' (SF5).</td>
</tr>
<tr>
<td>• Reduction in labour relations &amp; labour union problems</td>
<td>'One other significant benefit [of outsourcing] is that you can avoid all of the restrictions &amp; lack of flexibility that you have in the public sector because of union pressure' (BF2).</td>
</tr>
<tr>
<td>• Improvement in management's expertise</td>
<td>Management's ideas are changing &amp; I can see them as beneficial' (LG1).</td>
</tr>
<tr>
<td><strong>2. Cost &amp; financial factors:</strong></td>
<td></td>
</tr>
<tr>
<td>• Reduced service-specific operating costs</td>
<td>Significant cost benefits in terms of recurrent costs' (BF2).</td>
</tr>
<tr>
<td>• Access to cheaper labour</td>
<td>Not having to pay annual leave, sick leave etc.' (LG4).</td>
</tr>
<tr>
<td>• Reduced capital costs</td>
<td>Cost benefits in terms of equipment purchase &amp; maintenance' (BF2).</td>
</tr>
<tr>
<td>• Better accounting information</td>
<td>Outsourcing specialised services such as financial had led to a more professional approach . . . &amp; annual report' (LG5).</td>
</tr>
<tr>
<td><strong>3. Other factors:</strong></td>
<td></td>
</tr>
<tr>
<td>• Ability to test the market &amp; engage in benchmarking</td>
<td>'Market testing &amp; benchmarking provides interaction &amp; creates networks in the industry' (BF1). 'Tenders are good for testing in-house efficiency' (BF2).</td>
</tr>
<tr>
<td>• Greater flexibility &amp; access to newer equipment &amp; technology</td>
<td>'Flexibility definitely strikes me as first up ... provides newer equipment &amp; technology that's something else that stands out for me. By renewing contracts on a regular basis . . . you actually take a lot of the onus off the organisation itself to be up-to-date &amp; to provide the best quality' (LG1). 'Divest the expensive stuff . . . contractors probably have better equipment than you can afford' (SF4).</td>
</tr>
<tr>
<td>• Satisfaction of government policy requirements</td>
<td>'Satisfies CCT legislation' (LG2). 'Yes, we are bound to be competitively neutral' (BF1). 'The ACCC looks at competition policy and practice around the country . . . it may be an issue that would come up' (BF2).</td>
</tr>
<tr>
<td>• Improved ability to innovate &amp; compete</td>
<td>'Outsourcing is equivalent to open-office, brainstorming etc. &amp; is part of modern management philosophy . . . it stops the organisation from being insular' (BF1).</td>
</tr>
<tr>
<td>• Ability to avoid managerial or policy constraints</td>
<td>The major benefit of outsourcing is 'transferring our problems onto someone else' (BF5).</td>
</tr>
<tr>
<td>• Reduced opportunities for fraud &amp; corruption</td>
<td>The main advantage of outsourcing is 'getting rid of your workers' compensation problems . . . costs' (LG2).</td>
</tr>
<tr>
<td><strong>4. Quality &amp; customer-related factors:</strong></td>
<td></td>
</tr>
<tr>
<td>• Better quality &amp; better value services</td>
<td>'The single major benefit? An assured quality of service' (SF5). Outsourcing provides 'significant cost/benefit' advantages (BF2). 'As good if not better quality' (LG5).</td>
</tr>
<tr>
<td>• Improved accountability &amp; customer satisfaction</td>
<td>'It ensures Council provides an unbiased result. Allows for an independent assessment of the situation' (LG4). An advantage is the independence of provider' (BF5).</td>
</tr>
<tr>
<td><strong>5. Contractor control &amp; performance factors:</strong></td>
<td></td>
</tr>
<tr>
<td>• Improved control over service provision &amp; standards</td>
<td>If I have one person [contractor] that doesn't perform, outsourcing provides you with the capability that if they don't perform they're not on the next job' (SF5). 'In-house, the recourse is not as clean &amp; easy if standards aren't being met' (SF5).</td>
</tr>
<tr>
<td>• Improved service performance measurement</td>
<td>'Outsourcing agreements give performance criteria for a specific job, unlike a general employee position description' (BF5).</td>
</tr>
</tbody>
</table>

---

10 ACCC – Australian Competition and Consumer Commission.
<table>
<thead>
<tr>
<th>Unfavourably considered factors (Ranking)</th>
<th>Verbatim examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Contractor control &amp; performance factors:</strong></td>
<td></td>
</tr>
<tr>
<td>• Loss of direct control over service provision</td>
<td>'I think if we're controlling our own show ... that's where the better management control is ... having a contractor doing it, it's out of control' (SF3). 'I think one of the biggest problems is lack of control' (SF2).</td>
</tr>
<tr>
<td>• Performance assurance &amp; measurement problems</td>
<td>'It's hard enough to watch in-house, let alone a contractor' (BF3).</td>
</tr>
<tr>
<td>• Lack of contractor scrutiny: fraud, corruption, pay-offs</td>
<td>'Increases the opportunity for corruption, whether perceived or real' (LG5).</td>
</tr>
<tr>
<td>• Dependence on provider or contractor</td>
<td>'Contractors can exercise monopoly power' (BF1).</td>
</tr>
<tr>
<td>• Contract &amp; service standard specification difficulties</td>
<td>'Major problem of outsourcing - are you going to get what you want?' (LG1).</td>
</tr>
<tr>
<td>• Contractor defaults &amp; lack of available contractors</td>
<td>'The greatest problem is 'lack of available contractors for our technical work' (SF4).</td>
</tr>
<tr>
<td><strong>2. Cost &amp; financial factors:</strong></td>
<td></td>
</tr>
<tr>
<td>• Increased costs &amp; contractor cost overruns</td>
<td>'Management think they're saving money, even though the budgets show we're not' (BF5).</td>
</tr>
<tr>
<td>• Lack of long-term cost savings</td>
<td>'Costs are lower initially, but they creep up' (LG3).</td>
</tr>
<tr>
<td>• High contract development costs &amp; reduced financial control</td>
<td>'You've got to spend so much time conveying exactly what it is you want, &amp; to control the process that the cost savings in getting it externally resourced are outweighed by the internal cost of getting it driven' (SF1).</td>
</tr>
<tr>
<td><strong>3. Quality &amp; customer-related factors:</strong></td>
<td></td>
</tr>
<tr>
<td>• Decline in service quality</td>
<td>'Services are not better quality because the outsourcing company doesn't have your customers at heart, they don't own your needs, they don't own your business' (SF3).</td>
</tr>
<tr>
<td>• Reduced accountability, &amp; increased customer dissatisfaction</td>
<td>'The disadvantage is that it allows management to limit managerial responsibility' (SF1). 'Outsourcing can't provide the level of service that the community require' (LG1).</td>
</tr>
<tr>
<td>• Inability to assure or control quality</td>
<td>'It can be difficult to administer &amp; maintain quality control' (LG5).</td>
</tr>
<tr>
<td><strong>4. Staffing &amp; labour-related factors:</strong></td>
<td></td>
</tr>
<tr>
<td>• Loss of intellectual capital &amp; in-house expertise</td>
<td>'You're moving the opportunity for people to gain expertise in those areas, which in the larger growth of the organisation, you need people in-house to develop' (SF2).</td>
</tr>
<tr>
<td>• Unemployment &amp; labour relations problems</td>
<td>'Our labour relations with the existing staff that remain (have taken) a real downturn in productivity levels &amp; just general feelings within the office' (LG1). 'Outsourcing is extremely limited at present due to union power' (BF2). There is 'a downside in contractors coming in from outside &amp; taking away job opportunities for local people' (LG2).</td>
</tr>
<tr>
<td>• Increased management workload</td>
<td>'You have to be very carefully to manage the outsourcing, the contracting out, &amp; that can be quite onerous. There is a misconception that you simply pass responsibility over to someone &amp; that's the end of it. Well, that's not so' (SF5).</td>
</tr>
<tr>
<td><strong>5. Other factors:</strong></td>
<td></td>
</tr>
<tr>
<td>• Reduced innovative ability &amp; competitiveness</td>
<td>'Keeping up with industry trends can't be assured with outsourced services' (BF3). 'You strengthen the contractor &amp; they might be your competitor in future' (BF1).</td>
</tr>
<tr>
<td>• Loss of flexibility, physical assets &amp; capacity for future growth</td>
<td>'Once the decision is made &amp; assets disposed of, you lose future flexibility' (LG3). 'Every time you outsource you give up the opportunity of expansion' (BF1).</td>
</tr>
</tbody>
</table>
Section 4.10 has shown that the non-financial factors important in outsourcing decision-making fell into a series of distinct factor groupings following the case and interview data analyses. The results of these analyses have been incorporated into the revised multi-theoretical model presented in the next section of this chapter.

4.11 Conclusions

The primary research question posed in this thesis is ‘how and why are costs and costing information used in making outsourcing decisions in Australian public sector organisations?’ While the case study does not provide an answer to this question for the Australian public sector in general, it nevertheless provides a valid answer for the case organisation. The findings of the case analysis demonstrate the contextual nature of outsourcing and the degree of misfit between the case and theory.

Although the degree of opportunistic behaviour of organisation managers and external contractors proved difficult to gauge, there was a high degree of goal incongruence within the case organisation. While both TCE and agency theory suggest that outsourcing is preferable when it minimises production and transaction (agency) costs, the organisation is often reluctant to outsource, does not know its production costs, and generally does not consider either internal or external transaction costs in making outsourcing decisions. Further, while case informants considered cost savings to be the main objective of outsourcing, actual outsourcing decisions appeared to be based on risk, politics, and a variety of other factors. In the case organisation, costs and costing information are used haphazardly in making outsourcing decisions. Sometimes cost factors are important, but mostly other non-financial factors are of more importance. Generally the costs that are used by the organisation in making outsourcing decisions are sourced from an inadequate cost accounting system, there is no accepted or prescribed method for costing outsourcing decisions in the organisation, production costs are usually inappropriately calculated or ‘guesstimated’, and transaction costs are rarely considered.

The themes suggested by the analysis of the case study were extended to the analysis of the depth interview data collected from managers of fifteen other public sector organisations. Patterns emerging from the case data were compared with this larger sample, propositions clarified and assessed in light of this data, and the multi-theoretical model reconfigured to reflect findings from the depth interviews.
4.11.1 Modifications to multi-theoretical model

The adjustments made to the multi-theoretical model appear in the revised model presented in *Figure 4.1*. This is followed by a discussion of changes made to the model in comparison to the model initially presented in Chapter 2 (*Figure 2.8*).
Figure 4.1 REVISED model of variables in public sector outsourcing decision-making

DECISION
OUTSOURCE/IN-HOUSE PRODUCTION
(Market) (Hierarchiv)

DECISION EVALUATION
Ex-post cost savings

DECISION MAKING FRAMEWORK
Political/bounded rational model of choice
External political and other environmental influences
Human characteristics: Goal incongruence & opportunism

DECISION CRITERIA & FACTORS
Financial, human, organisational & environmental contextual factors, including:

- Cost & financial factors
- Staffing & labour-related factors
- Quality & customer-related factors
- Contractor control & performance factors
- Other factors

Financial characteristics
Ex-ante COSTS&SAVINGS: depend upon costing methods - comparison of appropriate in-house costs v. appropriate external costs

COSTING METHODS & MAS
More appropriate methods
- Avoidable costs
- Activity-based costs
- Production + transaction costs
- Long-term costs
- Accrual-based costs
- DCF/NPV analyses

Less appropriate methods
- Full costs (other than ABC)
- Allocated, non-avoidable & sunk costs
- Production costs only
- Short-term costs
- Cash-based costs (without DCF/NPV)

Market & transactional characteristics
Favourable to outsourcing
- Competitive market
- Standardised transaction
- Non-idiosyncratic transaction
- One-time or occasional transaction
- Trivial investment in human or physical capital
- Low site specificity
- Little uncertainty
- Service - non-core
- Formal contract
- Simple contract
- Short-term contract

Unfavourable to outsourcing
- Non-competitive market
- Non-standard transaction
- Idiosyncratic transaction
- Recurring transaction
- Substantial investment in human or physical capital
- High site specificity
- Significant uncertainty
- Service - core
- Informal contract
- Complex contract
- Long-term contract

Organisational characteristics
- Organisation size
- Organisation type
- Level of government
- Location
The general modifications to the multi-theoretical model (Figure 4.1) include a change in the flow and sequencing of activities and characteristics, compared to the prior top-down structure of Figure 2.8. The new sequence better reflects the decision-input focus of the model. The model has also been colour-coded to reflect the themes unearthed in the qualitative research and related to particular decision inputs, factors and characteristics that influence outsourcing decisions. These characteristics have been more appropriately grouped into those concerning human factors (purple), financial factors (yellow), human/organisation factors (blue), organisational characteristics (pink) and environmental factors, including those related to markets and transactions (green), consistent with the identified key themes.

The principal, specific modifications to the model include the deletion of the Core Set of Factors in the TCE Framework section of the model and its replacement with a Decision Making Framework. The presumption of a bounded rational approach to decision making has been replaced with a political/bounded rational model as revealed by the results of the qualitative research. Also, consistent with the results of the qualitative research, the human factors of opportunism and goal incongruence have been added to the decision-making framework. This change follows the relationship observed between these human factors and the emergence of the political model of choice as the most accurate descriptor of outsourcing decision-making.

The environmental factors of uncertainty/complexity in the previous TCE Core Factors section have been modified to reflect the peculiarities of public sector organisations, given the research results concerning external political (e.g. governmental) and other environmental influences. While information impactedness and opportunism have been removed from the Core Factors section, the inclusion of political dimensions to decision-making, and various contractor-related factors, do not mitigate the potential of information impactedness and opportunism variables to assist in explaining outsourcing decision-making. Finally, the small numbers (i.e. non-competitive contractor market) component of TCE Core Factors has been relocated to a new section reflecting the characteristics of markets, transactions and contracts.

There are no longer two Objectives components to the model. The original model contained a component relating to ‘Cost savings’ as the main objective of outsourcing, and another component comprising ‘Other main or secondary objectives’. The
qualitative research demonstrated that many organisations pursue a main objective other than cost savings, or pursue multiple objectives in outsourcing. Such objectives appear to be dependent on a range of human, organisational and environmental contextual factors. The five main groupings of factors in this aspect of the revised model emerged from the case and depth interview research.

In the new model, achievement of cost savings from outsourcing remains dependent on comparison of in-house versus outsource costs. The qualitative research evidenced that many organisations make no such cost comparisons either before or after outsourcing. Of those organisations making comparisons, the research showed that a mix of more and less appropriate costing methods were used. The model now includes aspects related to both ex-ante and ex-post cost savings comparisons.

Organisation size, organisation type, level of government and location offered potential in explaining the sophistication of MAS and costing methods used in outsourcing decision-making, and so this aspect of the model remains unchanged, apart from alteration of the title to ‘Organisational characteristics’.

Finally, the Characteristics of Transactions and the Form of Contract components have been integrated in the new model, and the Characteristics of Markets added to this amalgam. Characteristics listed to the left of the relevant text box in the model are those which should, according to theory, promote outsourcing, while characteristics to the right are those which detract from it. The site asset specificity variable has been formally incorporated into the new model, given the importance afforded this variable by the rural and regional public sector organisations studied. Several other transactional variables (eg. physical asset specificity) were found not to influence outsourcing decisions in the manner suggested by TCE. However, since the qualitative results were based on a small sample of organisations and managers, it was prudent to retain these variables in the model, at this stage, and to test several of them using the larger sample available for the quantitative analysis reported in Chapter 5.

The revised model is more simplified than the original model. It now suggests that:
- the decision to outsource or retain a function or service in-house is made by reference to a decision making framework which may contain elements of either or
both the bounded rational and political models of choice, modified by external political and other environmental influences;

- in applying the decision making framework, public sector organisations consider a number of factors which are contextual and contain financial, human, organisational and environmental ingredients;

- five groupings of factors may be considered, including:
  - cost and financial factors;
  - staffing and labour-related factors;
  - quality and customer-related factors;
  - contractor performance and control factors; and,
  - other factors;

- the outsourcing decision will also be influenced by the characteristics of markets, transactions and contracts, as posited by TCE;

- cost and financial factors will be related to the type and use made of MAS and costing information in the outsourcing decision - some costing methods providing more appropriate information for assessing the cost saving implications of decisions, and some methods providing inferior information;

- the level of sophistication and type of costing methods used may depend on an organisation’s size, type, level of government and/or location consistent with the predictions of contingency theory; and,

- the type of costing information used will affect estimates of the ex-ante and ex-post cost savings organisations aim or claim to achieve from outsourcing, and thus the ‘real’ or perceived cost benefits of outsourcing.

The final step in the research involved the examination and testing of the various research propositions unearthed in Chapter 2 and of the revised model (Figure 4.1) which emerged from the qualitative research described in the current chapter. These further investigations, reported in Chapter 5, were conducted utilising a large scale, cross-sectional, survey questionnaire.
CHAPTER 5: QUANTITATIVE ANALYSIS

5.1 Introduction

Chapter 4 discussed how the qualitative steps in the research directly addressed two research propositions and informed and refined the other research propositions, as well as contributing to the modification of the underlying, multi-theoretical research model. The propositions and modified model were subjected to large-scale, cross-sectional survey testing and Chapter 5 reports on the results of statistical analysis of this quantitative data as well as the analysis of qualitative data derived from responses to the outsourcing survey questionnaire.

Prior to presenting specific analyses and results, the chapter discusses the procedures used for making assumption tests and for conducting ANOVA, factor and other analyses. Analysis of results begins with a summary of demographic information relating to both manager respondents and their organisations, and to the mix of outsourcing and non-outsourcing organisations represented in the respondent sample.

For each major question of the survey questionnaire, cross-tabulations, frequency distributions and other basic descriptive statistical techniques were used to search for both anticipated and unexpected patterns in the data. Techniques including ANOVA, t-tests, chi-square analysis and factor analysis were then applied to particular variables and groups of variables to derive results related to each of the research propositions.

The results presented in this chapter are in sequence consistent with that of the qualitative results presented in the previous chapter and of the colour-coded, thematic components of the modified, multi-theoretical model (Figure 4.1) presented at the end of that chapter. Consequently, following the demographic information, the first set of results presented in this chapter are those relating to the outsourcing decision framework and human factors (Propositions 1, 2 and 4A), followed by those concerning transactional factors in outsourcing decision making (Proposition 4B).

The research results central to answering the primary research question are next presented in the chapter, and concern costing systems and costing methods used in making outsourcing decisions (Propositions 3, 6, 7, 5A and 5B). The chapter closes
with presentation of the results concerning the relative importance of non-cost factors in outsourcing decision-making (Proposition 8).

5.2 Assumption & significance testing

5.2.1 Assumption tests

Prior to analysis, tests for normality of particular variables within the survey data were conducted, based on visual inspection of plots and calculation of skewness, kurtosis, Shapiro-Wilks, Kolmogorov-Smirnov and Lilliefors statistics. Where appropriate, tests of specific variables were conducted using sub-group as well as overall responses. Several variables were tested for homogeneity of variance using Levene's test. Outliers were identified based on box plots, and in some cases the influences of outliers have been reduced, by reporting medians and 5% trimmed means\(^1\) in order to provide better measures of central tendency. Sample output for these tests appears in Appendix 10.

While some variables, such as those measuring organisation size, did not conform to a classic, normal distribution, they were not transformed. The decision not to transform these variables was made on the basis of the degree of robustness of the statistical tests and procedures applied to analyse the data. ANOVA, for example, is fairly robust with regard to violation of a normal distribution of subgroup means (Tabachnick & Fiddell 1996, p. 71), and violation of homogeneity of variances (Voelkl & Gerber 1999, p. 200). Factor analysis is also robust with respect to non-normality as long as it is used descriptively as a convenient way 'to summarize the relationships in a large set of observed variables, assumptions regarding the distributions of variables are not in force' (Tabachnick & Fiddell 1996, p. 640).

---

\(^1\) A 5% trimmed mean discounts the top and bottom 5% of cases, and so assists in reducing the biasing effects of extreme outliers on the calculation of the sample mean. The biasing effect of reporting only raw (non-trimmed) means is illustrated in Table 5.1, which shows that the raw mean annual budget of the budget-funded organisations' sample is twice the size of the trimmed mean. The raw mean was not a useful measure of central tendency given that the most extreme outlier organisation had an annual budget of $7 billion, which is 13 times larger than the raw mean.
Therefore, instead of transformation to produce artificial normal distributions, some non-normally distributed variables were recoded. For example, the non-normally distributed organisation size variable (based on total annual budget\(^2\)) needed to be recoded. Left in original code, organisation size was a continuous variable and could not be used for grouping purposes in ANOVA testing. Organisation size was therefore recoded into a categorical (grouping) variable. After recoding, non-normality of the distribution was no longer a relevant concern. In order to perform most of the required statistical tests only a two group categorical size variable could be used to ensure that fewer than 20% of cells would have expected counts of less than five. This is in line with the principle that the chi-square test should not be used ‘if any cell has an expected frequency of less than one or if 20% or more of cells have an expected frequency of less than 5’ (Bryman & Cramer 1999, p. 127). The recoding for this two-category variable produced approximately equal numbers in each category: one group comprising ‘small’ organisations (annual budget below the $21.9 million median of the sample), and the other ‘large’ organisations (annual budget above the median).

### 5.2.2 Significance tests

In using ANOVA, two comparison tests were applied: the Bonferroni and Scheffe tests. The Bonferroni \(t\)-test, based on the Bonferroni inequality, was used to counteract the effect of compounding error in conducting a family of \(t\)-tests. For example, when \(t\)-tests were used to search for significant differences between organisations from the eight States and Territories a Bonferroni-adjusted significance level of 0.0018 (ie. 0.05 divided by twenty-eight comparisons between the eight states) was used. Other procedures are available to counteract compounding error, but the Bonferroni method is more conservative (Glantz & Slinker 1990, pp. 294-298).

While mean differences concerning the role of costs had been anticipated based on organisation type, organisation size, location, or jurisdiction (level of government)\(^3\), the expected magnitude of the differences was largely unknown and so tests of differences were based on *post-hoc* comparisons after conducting ANOVA procedures. Examination of the data also showed that tests relating to other descriptive variables

\(^2\) The survey questionnaire provided information on two measures of organisation size – total annual budget and number of staff. There was a positive correlation between the two measures, significant at the 0.01 level (2-tailed), meaning that only one measure of size needed to be used. Total annual budget was chosen as a more reliable measure since in estimates of staff numbers some respondents included causal staff while others did not.

\(^3\) As reflected in Research Propositions 5A and 5B and associated hypotheses.
might produce significant results. These relationships had not been previously hypothesised and so the tests were also post-hoc. The Scheffe test was selected for making post-hoc comparisons following ANOVA as it is ‘tough on rejecting the null hypothesis’ (Coakes & Steed 1999, p. 73), more conservative in finding significant differences between groups, and less likely to involve making a Type I error (Tabachnick & Fiddell 1996; Hair et al. 1998). It was also selected for another important reason: the Scheffe test is exact for unequal numbers of subjects in different groups (Bryman & Cramer 1999, p. 152-153).

Tabachnick and Fiddell (1996, p. 48) note that ‘as group sizes become more discrepant … the F test is too liberal, leading to an increased Type I error rate and inflated alpha level’. Most of the data analysed using ANOVA procedures, and presented in this chapter, featured unequal group/cell sizes. Unequal cell sizes are a relatively minor concern in one-way ANOVA, but more problematic for two-way or factorial designs. A common procedure to counter unequal n is to randomly delete cases from groups with larger n. However, Tabachnick and Fiddell (1996, p. 48) caution against doing so in non-experimental work - artificially equalising group sizes in survey research results in distorting differences and losing generalisability since differences in sample sizes often reflect true differences in the number of various types of subjects within the population.

Thus cell sizes were not adjusted. Problems of unequal cell sizes were countered by using the Scheffe test for performing post-hoc analysis, and by applying Levene’s test for equality of variances to both ANOVA and independent samples t-tests. If the variance of the dependent variable is homogenous between groups ‘unequal cell sizes should not impact the sensitivity of the statistical tests of group differences’ (Hair et al. 1998, p. 359). Sample output for Levene’s test of several dependent variables appears in Appendix 10. Further, to counter the effects of unequal cell sizes in two-way or factorial ANOVA, the Type III classical experimental or least squares approach was used. Tabachnick and Fiddell (1996, p. 344-345) suggest this as the appropriate approach for non-experimental research when there are unequal numbers of cases in each cell (Bryman & Cramer 1999, p. 213).

When two discrete, non-parametric variables were compared, ANOVA was not appropriate for testing purposes. Instead chi-square analysis was conducted.
Significance was determined using Pearson chi-square and the strength of relationships tested using Somer's \( d \) statistic for ordinal scale comparisons and phi and Cramer's \( \nu \) for nominal scale comparisons.

Exploratory factor analysis was conducted using principal axis factoring. Data were pre-tested for factorability based on correlation matrices and the Kaiser-Meyer-Olkin (KMO) measure. The KMO was interpreted following the guideline that it should be 0.6 or above to assume factorability (Hair \textit{et al.} 1998; Coakes & Steed 1999). Only factors with eigenvalues of 1 or more and variables with factor loadings exceeding 0.5 were reported. With factor loadings of 0.5 and above, given the sample size of this study, results are statistically significant.\(^4\) Any variable that loaded on a factor at 0.5 but also loaded on another by more than 0.3 was regarded as contaminated (Ticehurst & Veal 1999, p. 229), and is reported as such. Where rotated factor solutions were necessary, rotation was based on the varimax procedure which assumes orthogonality (independence of factors from one another). In assessing the reliability of factors created, Cronbach's alpha reliability coefficients were calculated. While a Cronbach's alpha coefficient of 0.7 is usually the generally agreed upon lower limit, 0.6 is acceptable for exploratory purposes (Hair \textit{et al.} 1998, p. 118).

Output and results for significant statistical tests, using chi-square, \( t \)-tests, ANOVA and other procedures, appear in this chapter. Sample output for factor analyses and Cronbach's alpha coefficients appear in Appendix 11.

Based on these tests and criteria for significance, discussed in the current section, the following reports of results for respondent characteristics, organisation characteristics and outsourcers and non-outsourcers were compiled.

\(^4\) Hair \textit{et al.} (1998, p. 112) compute that for a sample of approx. size \( n = 120 \) and a 0.5 factor loading, significance of a factor at the 0.05 level can be assumed, given a power level of 80% and standard errors twice those of conventional correlation coefficients. For smaller samples larger factor loadings are necessary. For example, where \( n = 50 \), a factor loading of 0.75 would be necessary for significance.
5.3 Demographics

5.3.1 Organisation characteristics

Descriptive statistics relating to organisation type and size for the sample of 131 usable responses received are presented in Table 5.1.

Table 5.1 Descriptive statistics for organisation size

<table>
<thead>
<tr>
<th>Organisation size descriptors</th>
<th>Local governments</th>
<th>Self-funded organisations</th>
<th>Budget-funded organisations</th>
<th>All organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size (n)</td>
<td>64 (48.9%)</td>
<td>36 (27.5%)</td>
<td>31 (23.6%)</td>
<td>131 (100%)</td>
</tr>
<tr>
<td>Total budget (in $)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>36.7 mill</td>
<td>53.7 mill</td>
<td>505.4 mill</td>
<td>155.5 mill</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>37 mill</td>
<td>84.1 mill</td>
<td>1.3 bill</td>
<td>687.1 mill</td>
</tr>
<tr>
<td>5% trimmed mean</td>
<td>33.2 mill</td>
<td>40.8 mill</td>
<td>254.1 mill</td>
<td>52.9 mill</td>
</tr>
<tr>
<td>Range</td>
<td>1.5 - 160 mill</td>
<td>400k - 400 mill</td>
<td>250k - 7 bill</td>
<td>250k - 7 bill</td>
</tr>
<tr>
<td>Median</td>
<td>20 mill</td>
<td>19 mill</td>
<td>37 mill</td>
<td>21.9 mill</td>
</tr>
<tr>
<td>Number of staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>263</td>
<td>303</td>
<td>1,290</td>
<td>525</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>267</td>
<td>418</td>
<td>1,732</td>
<td>993</td>
</tr>
<tr>
<td>5% trimmed mean</td>
<td>237</td>
<td>254</td>
<td>1,101</td>
<td>360</td>
</tr>
<tr>
<td>Range</td>
<td>12 - 1,000</td>
<td>2 - 1,800</td>
<td>3 - 6,500</td>
<td>2 - 6,500</td>
</tr>
<tr>
<td>Median</td>
<td>170</td>
<td>120</td>
<td>250</td>
<td>150</td>
</tr>
</tbody>
</table>

Table 5.1 is particularly useful in demonstrating the range of sizes of organisations in the sample and the differences between the relatively smaller sized local government and self-funded organisations, compared with the larger budget-funded agencies. For example, the 5% trimmed mean (highlighted) in annual budget dollars for budget-funded organisations is more than six times as large as that for self-funded organisations, and the median budget almost twice that of local government organisations.

A chi-square analysis utilising a four category organisation size variable\(^5\) revealed significant differences across groups in terms of organisation size ($\chi^2 = 14.596$, df 6, p = 0.024). The test showed that local government organisations are generally smaller than other types of public sector organisations, while budget-funded organisations are generally larger.

\(^5\) Each of the four quartile range groupings had the same observed and expected cell counts overall. The only differences between observed and expected counts in each cell could therefore be attributed to the organisation type variable. The four-group budget range variable was only applicable to this specific test because all cell counts exceeded five cases. In conducting other tests only a two-group budget range variable could be used so as not to violate minimum cell count requirements.
The distribution of organisations by type was skewed in favour of local governments, which constituted almost half (48.9%) of total responses. However, classified by both level of government (Table 5.2) and location (Figure 5.1), organisations represented in the overall sample and within organisation type sub-samples were distributed consistently with underlying population proportions, as demonstrated by the non-response bias tests reported in Chapter 3. Both self-funded and budget-funded organisations were also analysed in terms of industry (Figure 5.2) which served to further emphasise the breadth and diversity of the sample.

Table 5.2 Breakdown of organisation types by level of government

<table>
<thead>
<tr>
<th>Organisation type</th>
<th>Local government</th>
<th>State/Territory government</th>
<th>Federal government</th>
<th>All organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local governments</td>
<td>64</td>
<td></td>
<td></td>
<td>64</td>
</tr>
<tr>
<td>Self-funded organisations</td>
<td></td>
<td>27</td>
<td>9</td>
<td>36</td>
</tr>
<tr>
<td>Budget-funded organisations</td>
<td></td>
<td>24</td>
<td>7</td>
<td>31</td>
</tr>
<tr>
<td>Total sample (n)</td>
<td>64 (49%)</td>
<td>51 (39%)</td>
<td>16 (12%)</td>
<td>131 (100%)</td>
</tr>
<tr>
<td>Annual budget (5% trimmed mean)</td>
<td>$33.2 mill</td>
<td>$107.5 mill</td>
<td>$270.7 mill</td>
<td></td>
</tr>
</tbody>
</table>

Figure 5.1 Locations of organisations (n = 131)
5.3.2 Manager respondent characteristics

Several manager respondent characteristics were selected including job title, level of management, years of managers' public sector employment and outsourcing experience, and managers' attitudes to outsourcing. While the survey questionnaire was addressed to the Chief Financial Officer (CFO) of each organisation, and CFO respondents were the mode, 60.3% of respondents occupied other management positions (Figure 5.3)

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6 Details concerning the development of the industry categories, category inclusions, and specific examples from the research appear in the coding schema presented in Appendix 6.
The stacked bar chart featured in Figure 5.3 shows that the second largest respondent category was Chief Executive Officers (CEOs)/General Managers (GMs). More than 56% of the responses received from managers in this category (and 80% in the Technical Manager category) were from local government organisations and this is not surprising as many smaller local councils do not have CFOs. In New South Wales (NSW) at least, CEOs rather than CFOs are responsible for delivering the benefits of outsourcing (Lambert 1995), and so the large CEO/GM response, therefore, is unlikely to detract from the results and findings of this research.

Figure 5.3 also discloses managers' self-categorisations as to management level based on descriptions provided in the questionnaire. Approximately 48% of managers classified themselves at the executive level and 36.5% at the middle management level. For both local government and self-funded organisations, the majority of respondents were at the executive level; however, only 29% of budget-funded organisation respondents were executive managers, and 52% middle managers. Management level differences probably reflect organisation size differences of the smaller local government and self-funded organisations compared with the larger budget-funded

7 Details and examples related to respondents included in each Job Title category used in Figure 5.3 appear in Appendix 6.
agencies (Table 5.1). While Domberger (1994b)\(^8\) contends that outsourcing is mistrusted by middle managers 'in whose interest it may be to preserve the status quo', tests of the survey data revealed no significant differences in managers’ personal attitude to outsourcing based on level of management ($\chi^2 = 2.194$, df 4, $p = 0.7$).

Some variations were detected in both managers' years of public sector employment experience and their years of outsourcing experience in the public sector (Table 5.3).

**Table 5.3 Public sector management & outsourcing experience**

<table>
<thead>
<tr>
<th>Experience descriptors</th>
<th>Local governments $n = 64$</th>
<th>Self-funded organisations $n = 36$</th>
<th>Budget-funded organisations $n = 31$</th>
<th>All organisations $n = 131$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public sector employment (years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>18.5</td>
<td>15.9</td>
<td>17.2</td>
<td>17.5</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>10.9</td>
<td>11.6</td>
<td>9.8</td>
<td>10.8</td>
</tr>
<tr>
<td>Range</td>
<td>1.8 – 44</td>
<td>0.5 – 38.5</td>
<td>0.8 – 35</td>
<td>0.5 – 44</td>
</tr>
<tr>
<td>Public sector outsourcing experience (years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>9.2</td>
<td>4.9</td>
<td>7.3</td>
<td>7.6</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>9.1</td>
<td>4.3</td>
<td>4.8</td>
<td>7.3</td>
</tr>
<tr>
<td>Range</td>
<td>0 – 36</td>
<td>0 – 15</td>
<td>0 – 20</td>
<td>0 – 36</td>
</tr>
</tbody>
</table>

Table 5.3 displays that on average managers possessed 17.5 years of public sector employment experience and 7.6 years of outsourcing experience in the public sector. In the depth interview component of the research reported in Chapter 4, managers also had 17.5 years mean public sector employment experience, but somewhat less outsourcing experience ($\mu = 5.7$ years).\(^9\) There were no significant differences in managers’ mean years of public sector employment or outsourcing experience based on organisation type, organisation location (state/territory), or level of government.

One final respondent characteristic of interest is that of managers' attitudes to outsourcing. While positive ratings were fairly consistent across the three organisation types, neutral and negative ratings exhibited some variation, as reported in Table 5.4.

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\(^8\) The actual quote is derived from an interview with Domberger reported in Hilvert (1994, p. 22).

\(^9\) The $\mu$ notation, in the sense used above, refers to the mean of the relevant sample (not the population mean).


Table 5.4  Self-ratings of attitude to outsourcing for organisation type

<table>
<thead>
<tr>
<th>Personal attitude</th>
<th>Local governments</th>
<th>Self-funded organisations</th>
<th>Budget-funded organisations</th>
<th>Total organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( n = 64 )</td>
<td>( n = 36 )</td>
<td>( n = 31 )</td>
<td>( n = 131 )</td>
</tr>
<tr>
<td>Positive</td>
<td>49%</td>
<td>48.5%</td>
<td>45%</td>
<td>48%</td>
</tr>
<tr>
<td>Neutral</td>
<td>36.5%</td>
<td>31.5%</td>
<td>29%</td>
<td>33%</td>
</tr>
<tr>
<td>Negative</td>
<td>14.5%</td>
<td>20%</td>
<td>26%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Although Table 5.4 seems to indicate that local government managers had the least negative attitudes and budget-funded managers the least positive attitudes, statistical tests showed no significant differences in attitudes on the basis of organisation type (\( \chi^2 = 2.006, \text{df} 4, \ p = 0.735 \)) or organisation size (\( \chi^2 = 0.248, \text{df} 2, \ p = 0.883 \)). Tests of personal attitudes compared to organisations’ government level, and respondents’ years of public sector employment experience, and most notably years of outsourcing experience, were also non-significant. This finding helps to evidence a lack of systematic bias and is important for the analysis and interpretation of responses to several other survey questions.

In summary, data analysis revealed that most managers were either CFOs or CEO/GMs of their organisations, and consequently the largest management level category was the Executive level. Managers’ experience in the public sector in general and in outsourcing decision-making varied widely and there was also variation in managers’ attitudes to outsourcing. However, it was found that managers’ experiences and attitudes did not vary significantly based on any of a number of potential explanatory variables, including organisation type, location or size, or level of government.

5.3.3 Characteristics of non-outsourcing organisations

Of the 131 respondents to the survey, fifteen (11.5%) worked in public sector organisations which do not outsource. Non-outsourcing organisations were in all States and Territories, except Tasmania. In terms of organisation type, non-outsourcers represented eight (12.5%) of the 64 local governments, five (13.9%) of the 31 self-funded organisation respondents, and two (6.5%) of the 29 budget-funded organisations. Non-outsourcing organisations in the self-funded and budget-funded samples were only at the state/territory government level. In other words, all Federal government organisations surveyed engaged in outsourcing.
The (5% trimmed) mean total budget of non-outsourcing organisations was only $11.4 million\textsuperscript{10} compared with the outsourcing organisations' sample (5% trimmed) mean of $60.8 million. Using the two-category organisation size (annual budget) variable, the differences between non-outsourcing and outsourcing organisations were significant ($\chi^2 = 9.392$, df 1, $p = 0.002$), meaning that smaller organisations are less likely to outsource.

Non-outsourcing organisations were not required to answer survey Questions 2 through 12, concerning outsourcing practices and organisational costing systems, and so have been excluded from further analysis unless otherwise indicated.

### 5.3.4 Services outsourced

The 166 outsourcing organisations procured a wide variety of services through outsourcing, and using a process of qualitative analysis, these individual services were coded and categorised. In total, the outsourcer respondents identified 481 services their organisations had outsourced. On average respondents listed four services, 33% of respondents listed five or more services, and several local governments in excess of twenty services outsourced. There were no significant differences in the number of services outsourced according to organisation type, size, location, or level of government. However, the classes of services outsourced vary consistently, and not unexpectedly, according to organisation type as discussed below.

Information pertaining to the most frequently mentioned services outsourced was obtained from responses to an open-ended survey question (Question 2) and is summarised according to service type in Table 5.5.

\textsuperscript{10} Excluding two outlier non-outsourcing organisations: the largest a Victorian local government with an annual budget of $140 million.
Table 5.5 Categories of services outsourced

<table>
<thead>
<tr>
<th>Service category</th>
<th>Relative Frequency</th>
<th>Service type examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property services</td>
<td>10.2%</td>
<td>Building cleaning, plumbing, parking control</td>
</tr>
<tr>
<td>Research, scientific &amp; technical services</td>
<td>9.8%</td>
<td>Surveying, research assistance</td>
</tr>
<tr>
<td>Equipment maintenance &amp; works-related services</td>
<td>9.1%</td>
<td>Bitumen sealing, earthmoving, plant hire</td>
</tr>
<tr>
<td>Financial services</td>
<td>9.1%</td>
<td>Accounting, internal audit, valuations</td>
</tr>
<tr>
<td>Information technology services</td>
<td>8.1%</td>
<td>IT support, computer maintenance</td>
</tr>
<tr>
<td>Services to grounds, reserves &amp; other public areas</td>
<td>7.9%</td>
<td>Street cleaning, grounds maintenance</td>
</tr>
<tr>
<td>Waste services</td>
<td>7.3%</td>
<td>Garbage collection, sewerage, recycling</td>
</tr>
<tr>
<td>Business services</td>
<td>5.4%</td>
<td>Business planning, HR services, recruitment</td>
</tr>
<tr>
<td>Construction services</td>
<td>5.4%</td>
<td>Major road construction, major capital works</td>
</tr>
<tr>
<td>Health &amp; welfare services</td>
<td>5.0%</td>
<td>Aged care, pathology tasks, youth services</td>
</tr>
<tr>
<td>Print, production &amp; media services</td>
<td>4.8%</td>
<td>PR, marketing, publicity</td>
</tr>
<tr>
<td>Administrative support services</td>
<td>4.4%</td>
<td>Data processing, payroll, secretarial</td>
</tr>
<tr>
<td>Other services**</td>
<td>13.5%</td>
<td></td>
</tr>
<tr>
<td>**</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

* The service type categories used in Table 5.5 are consistent with those used in the CTC Consultants (1996) Annual Contracting Survey Questionnaire. Full details of the types of services included in each category and numerous other verbatim examples from survey responses appear in Appendix 6.

** The 'Other services' category includes all other types of services for which responses were 2.5% or less of total responses, including Food & Laundry services, Forestry & Farming services, Legal services, Library, Museum & Information services, Security & Correctional services, Telecommunications & Postal services, Training & Education services, Transport services, and Water Provision services.

Table 5.5 demonstrates the most frequently outsourced services are a mix of those for basic, recurrent and routine tasks (e.g. property services, equipment maintenance, services to grounds) and those which require specialist technical and professional skills (e.g. research & scientific services, financial services, IT services). While Table 5.5 shows that a wide variety of services are outsourced, many of the services are particular to specific types of organisations, as illustrated in Table 5.6.

Table 5.6 Chief services outsourced according to organisation type

<table>
<thead>
<tr>
<th>Categories of services outsourced</th>
<th>Local governments</th>
<th>Self-funded organisations</th>
<th>Budget-funded organisations</th>
<th>All outsourcer organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research, scientific, technical</td>
<td>72.3%</td>
<td>43.2%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Maintenance &amp; works</td>
<td>84.1%</td>
<td>43.6%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Financial services</td>
<td></td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Information technology</td>
<td></td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Services to grounds, reserves</td>
<td>94.7%</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Waste services</td>
<td>91.4%</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Business services</td>
<td></td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Construction services</td>
<td>73.1%</td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Print, production &amp; media services</td>
<td></td>
<td></td>
<td>50%</td>
<td>100%</td>
</tr>
<tr>
<td>Administrative support</td>
<td></td>
<td></td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Other services:</td>
<td></td>
<td></td>
<td>52.4%</td>
<td>100%</td>
</tr>
<tr>
<td>Telecommunications &amp; postal</td>
<td></td>
<td></td>
<td>71.4%</td>
<td>100%</td>
</tr>
<tr>
<td>Security &amp; correctional</td>
<td></td>
<td></td>
<td>77.8%</td>
<td>100%</td>
</tr>
<tr>
<td>Training &amp; education</td>
<td></td>
<td></td>
<td>66.7%</td>
<td>100%</td>
</tr>
</tbody>
</table>

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Table 5.6 shows that local government organisations accounted for 94.7% of total responses in the ‘Services to grounds, reserves & other public areas’ category, and 91.4% of total responses in the ‘Waste services’ category. These results are consistent with the chief operations of local governments and with other studies of services outsourced by Australian local governments (see ACC 1988a, 1988b; Industry Commission 1996). By way of contrast, the more commercial orientations of self-funded organisations were reflected and predominated in four other service categories, including ‘Telecommunications & postal services’ (71.4%) and ‘Administrative support services’ (52.4%). Services outsourced by budget-funded organisations exhibited similar consistency with the nature of their operations and operating environments representing 77.8% of total responses for ‘Security & correctional services’ and 66.7% of total responses for ‘Training & education services’.

Note that while local governments comprised 48.3% of the outsourcer sample, these respondents listed 255 (53%) of the 481 outsourced services. This result is probably not surprising given that local governments appear to contract out a much higher percentage of total expenditure than other levels of government (Industry Commission 1996). To further interpret these results, responses were analysed for Question 9, which concerns managers’ perceptions of their organisations’ levels of adoption of outsourcing.

5.3.5 Adoption of outsourcing

Figure 5.4 shows that 45.7% of managers perceive their organisations to be ‘active’ outsourcers, while only 15.5% regard their organisations as ‘reluctant’ outsourcers.
Based on organisation type, perceptions of organisational adoption of outsourcing somewhat belie the previous contention that local governments more actively engage in outsourcing. Only 39.6% of local government respondents perceived that their organisations actively adopt outsourcing. This contrasts sharply with results for the two other organisation types, as illustrated in Table 5.7.

**Table 5.7 Adoption of outsourcing according to organisation type**

<table>
<thead>
<tr>
<th>Organisational adoption level</th>
<th>Local government organisations ($n = 50$)</th>
<th>Self-funded organisations ($n = 31$)</th>
<th>Budget-funded organisations ($n = 29$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>39.6%</td>
<td>56.7%</td>
<td>53.6%</td>
</tr>
<tr>
<td>Neutral</td>
<td>35.8%</td>
<td>33.3%</td>
<td>39.3%</td>
</tr>
<tr>
<td>Reluctant</td>
<td>24.6%</td>
<td>10.0%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

While Table 5.7 appears to indicate that local governments are less active outsourcers than other organisations, there were no significant differences in managers’ perceptions of organisation adoption of outsourcing according to organisation type ($\chi^2 = 5.969$, df 4, $p = 0.201$), organisation size ($\chi^2 = 0.380$, df 2, $p = 0.827$), or to a host of other demographic variables. Further, as stated in Chapters 3 and 4, participants’ perceptions of their organisations’ levels of outsourcing activity may or may not be objective. Nevertheless, it is those perceptions that are of most importance in the

---

11 Other demographic variables used in testing included level of government, management level, and managers’ years of public sector employment and outsourcing experience.
context of the research since these perceptions can affect outsourcing decision making behaviour. On this last point, a further test was conducted to see if any relationship existed between managers' personal attitudes towards outsourcing and their perceptions of organisational adoption levels of outsourcing.

While there were no significant relationships between attitudes toward outsourcing and perceptions of the level of organisational adoption of outsourcing for the combined sample, or for the local government and budget-funded organisation sub-groups, there were significant differences within the self-funded organisations sample.

A chi-square analysis for self-funded organisation respondents ($\chi^2 = 4.693$, df 1, $p = 0.030$) revealed that positive attitudes towards outsourcing were strongly related to perceptions of active organisational adoption of outsourcing. Similarly, negative and neutral attitudes were strongly related to perceptions of reluctant or neutral adoption of outsourcing. While the result is significant, it cannot necessarily be inferred that positive personal attitudes lead to an inclination for self-funded organisations to engage in outsourcing, or vice versa.

To summarise, sections 5.3.4 and 5.3.5 have illustrated the wide range of services procured through the market by the 116 outsourcing organisations, and the mix of recurrent, routine, and specialist functions and services these organisations acquire through outsourcing. The types of services outsourced are generally consistent with the operations of particular types of public sector organisations. Managers' perceptions of their organisations' level of adoption of outsourcing did not vary according to demographic factors such as organisation location or level of government, except for the self-funded organisation group, where personal attitudes and perceptions of adoption levels were positively related.

5.4 Outsourcing & decision making

5.4.1 The cost savings objective
In previous chapters the predominance of the cost savings objective ascribed to outsourcing by Australian public sector organisations has been established. Question 3 of the survey questionnaire provided respondents with an open-ended opportunity to describe the reasons why their organisations outsource, and was designed to elicit
details on the nature of the objective/s of outsourcing in these organisations. Responses to the question were qualitatively analysed, coded and thematically classified. The coding and classification criteria applied are discussed in detail in Appendix 6 and were developed from the previous steps in the research including the content analysis study, case study and depth interviews.

On average, respondents provided 2.4 reasons for engaging in outsourcing, and 41.6% of respondents identified three or more (max = 6) reasons for outsourcing. In total, 18 distinct reasons (plus several, miscellaneous reasons) were identified. There were no significant differences in the number of reasons cited by managers, based on variables such as organisation type or size. For each organisation type, *Table 5.8* specifies the most frequently mentioned reasons for outsourcing, the modal reason, and other high frequency (ie. 2nd, 3rd, 4th most frequent) reasons.

*Table 5.8 Objectives/reasons for outsourcing*

<table>
<thead>
<tr>
<th>Objective reason</th>
<th>Frequency of total sample</th>
<th>Local government organisations</th>
<th>Self-funded organisations</th>
<th>Budget-funded organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce costs</td>
<td>19.9%</td>
<td>Mode</td>
<td>Mode</td>
<td>Mode</td>
</tr>
<tr>
<td>Specialist technical &amp; professional expertise required</td>
<td>15.7%</td>
<td>2nd</td>
<td>2nd</td>
<td>3rd</td>
</tr>
<tr>
<td>Staffing inadequacies</td>
<td>13.5%</td>
<td>3rd (eq.)</td>
<td>3rd</td>
<td>2nd</td>
</tr>
<tr>
<td>To satisfy government policy</td>
<td>8.6%</td>
<td>3rd (eq.)</td>
<td></td>
<td>4th (eq.)</td>
</tr>
<tr>
<td>Reduction in or lack of physical assets</td>
<td>7.9%</td>
<td>3rd (eq.)</td>
<td></td>
<td>4th (eq.)</td>
</tr>
<tr>
<td>Seasonality/activity fluctuations/one-off need</td>
<td>7.5%</td>
<td>4th (eq.)</td>
<td></td>
<td>4th (eq.)</td>
</tr>
<tr>
<td>Efficiency improvement</td>
<td>6.7%</td>
<td>4th (eq.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other objectives*</td>
<td>20.2%</td>
<td>4th (eq.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* This category includes all other objectives cited but which accounted for less than 3.5% each of total responses, including ‘market testing’, ‘reduction in business risk’, and ‘focus on core business’.

Note that local governments comprised 48.3% of the outsourcer sample, and provided 45.7% (122) of individual reasons for outsourcing, self-funded organisations, comprising 26.7% of the sample, listed 70 (26.2%) reasons, and budget-funded organisations 25% of the sample, with 28.1% (75) of reasons.

*Table 5.8* indicates that the most frequently claimed objective of, or reason for, outsourcing is to reduce cost, although slightly less than 20% of respondents gave this reason. Cost reduction was also the modal response for each organisation type, however, only six respondents listed cost reduction as the sole reason for outsourcing.
Table 5.8 demonstrates a marked consistency across the three main organisation types in the frequencies with which other objectives of and reasons for outsourcing were cited. For example, need for specialist/technical expertise and staffing inadequacies were the 2nd or 3rd most frequently mentioned objective overall and for each organisation type. Both local government and budget-funded organisations also pointed to the need to satisfy government policy as important reasons for outsourcing.

Of interest are the findings that while only six (5%) organisations specified cost savings as the sole objective of outsourcing, sixteen (14%) organisations specified a sole objective that was not cost-related. Generally these respondents cited the need to satisfy government outsourcing policy and legislation or the need for specialist or technical expertise as sole objectives.

In summary, while the cost savings objective is the most frequently cited objective of outsourcing, only 20% of respondents cited this objective and only 5% regarded it as the sole objective. Therefore, 95% of respondents perceive that other objectives are also pursued; comprising 15% who claim cost minimisation plus other objectives are pursued, and 80% of all respondents claiming that non-cost objectives are the drivers of outsourcing in their organisations.

5.4.2 Making outsourcing decisions

In the previous chapter it was noted that rich descriptions of outsourcing decision processes within organisations could not be obtained from a large-scale survey instrument. Nevertheless, the final component of the survey questionnaire, which allowed respondents to make additional comments concerning outsourcing, proved useful in eliciting information supportive of the outsourcing decision model results produced by the earlier qualitative components of the research reported in Chapter 4. Fifty-one (39%) respondents made comments, which were qualitatively analysed and coded. Several respondents reiterated or expanded on their responses to survey questions 3, 13 and 14 concerning the advantages and problems of outsourcing. However, almost half of the respondents making comments addressed the issues of how outsourcing decisions are or should be made.
Several respondents linked outsourcing decisions to their organisations' strategic direction, and several others to improvements in the manner in which their organisations make decisions. Fifteen other respondents commented upon the political nature of outsourcing decisions within their organisations and to the external influences of government policies on organisational decision-making. Those respondents who commented upon strategic foci and improvements in organisational decision-making and decision support systems appear to describe aspects of bounded rational outsourcing decision making. Other comments reflect the political dimensions, both internal and external to the organisation, in making outsourcing decisions. Illustrative verbatim comments are presented below with indicators as to the location and type of organisations from which the respondents were drawn.

**Strategic and objective-focussed decision making: Illustrative examples**

- outsourcing is with us and has been for years – but must be managed. Don't outsource core business ... keep core competencies/knowledge in business (SF, Vic);
- if it [outsourcing] is applied on a discriminating basis and all costs are considered it is worthwhile (BF, Qld);
- it [outsourcing] must link in with your strategic goals/focus. Best to consider your non-core functions for outsourcing – before (if at all) your core functions (BF, NSW);
- outsourcing is most suited for transactional processing procedures – not for core business – moves for purely ideological reasons are damaging (BF, NSW);
- analysis of how you do business is an integral part of the outsourcing process. This would not normally be done (unless considering outsourcing), and proves invaluable (LG, Vic);
- outsourcing leads to savings because the organisation has to quantify and document service levels/provision prior to tender. Pre outsourcing much of this documentation did not exist (LG, Vic); and,
- outsourcing should also be accompanied by best practice/best value principles using key performance indicators now being used here in Victoria (LG, Vic).

The comments above illustrate how organisational strategy, particularly the differentiation between core and non-core activities, can impact upon outsourcing. The last three respondent comments provided above also suggest that in the organisations concerned, outsourcing has improved the rigour of procedures in searching for, documenting, and assessing decision-relevant information.

**Politically focussed decision-making: Illustrative examples**

Many other comments, of which the following verbatim illustrations are examples, attest to the political nature of outsourcing decisions; both the influence of external political imperatives and intra-organisational politics:

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12 Consistent with notation used in Chapter 4, LG refers to a local government, SF to a self-funded organisation, and BF to a budget-funded organisation.
• budgetary pressures and downsizing of the workforce imposed by government effectively forces departments into outsourcing in an effort to maintain existing service levels (BF, NSW);
• decisions appear to be made by the Area [Health Service] on mainly political reasons. There is an internal struggle between state v. federal funding and policy ... constraints are placed upon the service by departmental policy and at times political whim (SF, NSW);
• [outsourcing] has been good in Victoria but was introduced in the wrong way and at the wrong time ie. same time as council restructure (LG, Vic);
• outsourcing produces significant benefits in terms of flexibility in rigid organisations. It is not the panacea expected by some economic rationalists ... generally the public sector is significantly introspective and seeks to be all things to all people. Thus hugely complicated systems are implemented and prove inadequate for the purpose requiring the transition to even larger and more complicated systems (BF, Vic);
• outsourcing for us is dependent to some extent on the policies of the government of the day (BF, Qld);
• outsourcing processes will differ between levels of government and become political in some areas (BF, Qld);
• agree with the principle [of outsourcing] but believe it is more often lost through compliance with legislation and process orientation – the process is more important than the outcome? (LG, Tas);
• CCT is a process which was necessary to achieve cultural reforms. Compulsory Tendering is no longer desirable or necessary. There is no turning back in any event (LG, Vic);
• outsourcing is appropriate in many situations, but since it became a matter of public service doctrine it has resulted in many absolute disasters (LG, WA);
• decisions made on outsourcing and restructures appear to me to be naive and knee jerk reactions to government policy. Ill-advised and poorly enacted (SF, NSW);
• not all outsourcing functions are cheaper or better for the organisation. Most are politically driven and hence not viable (BF, WA); and,
• the benefits/cost [of outsourcing] will be individual to each organisation and circumstance and therefore outsourcing is not something which should be either pushed or halted via government policy (BF, SA).

Section 5.4 has provided an analysis of some of the qualitative data collected through administration of the survey questionnaire concerning managers’ perceptions of the objectives of outsourcing, and the processes by which outsourcing decisions are made. However, there are other characteristics of outsourcing, relating to the influences of markets and outsourcing transactions and contracts, which may impact upon how and why outsourcing decisions are made.

5.5 Characteristics of markets, transactions & contracts

Question 11 of the survey contained five TCE-related statements concerning the variables of asset specificity/sunk costs, service complexity and performance ambiguity, environmental uncertainty, and competitiveness of contractor markets. These questions, and the following analyses, aim to test the hypotheses that:

H 4B.1 Australian public sector organisations prefer to outsource when asset specificity is low.

H 4B.2 Australian public sector organisations prefer to outsource when performance ambiguity and complexity are low.
Australian public sector organisations prefer to outsource when uncertainty is low.

Australian public sector organisations prefer to outsource when markets are competitive.

For all TCE variables, other than the physical asset specificity/sunk cost item, respondents reported a mean agreement level at the midpoint between ‘agree’ and ‘neutral’ on the scale. In other words, on average respondents were mildly agreeable to the propositions that outsourcing is preferable to in-house production if:

- a task or service is complex and entails performance ambiguity ($\mu = 3.62$);
- a task or service requires a high degree of human technical expertise ($\mu = 3.51$);
- there is uncertainty in the organisation or its external environment ($\mu = 3.42$); and,
- there is a large number of potential contractors to choose from ($\mu = 3.55$).

For the negatively worded asset specificity/sunk cost statement the mean response was ‘agree’ ($\mu = 3.05$), indicating that outsourcing was less preferable to continued in-house production when organisations possess specialised assets.

Pearson correlations and one-tailed tests revealed several of the TCE variables were positively and significantly correlated: human asset specificity and uncertainty ($p = 0.01$); human asset specificity and complexity ($p = 0.01$); and, uncertainty and complexity ($p = 0.05$). A partial correlation controlling for complexity also produced a significant correlation between human asset specificity and uncertainty ($p < 0.0005$). These correlations collectively indicate that outsourcing is preferable to in-house production when human asset specificity, complexity, and uncertainty are high.

Responses to two of the TCE-related statements were significantly associated with organisation size, based on the results of $t$-tests. The results were:

- small organisations ($\mu = 2.53$) are less likely than large organisations ($\mu = 3.59$) to outsource for a task or service if specialised assets related to that task or service are currently possessed ($t = -3.975$, $p < 0.0005$); and,
- small organisations ($\mu = 3.23$) are more likely than large organisations ($\mu = 3.95$) to outsource complex and ambiguous tasks and services ($t = 2.776$, $p = 0.007$).

The uncertainty variable, relating to whether outsourcing is seen as preferable to in-house production when there is a high level of uncertainty about the future in the organisation or its environment, was significantly associated with only one variable; level of government (ANOVA Table 1).
ANOVA Table 1

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Grouping Variable</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncertainty</td>
<td>Between Groups</td>
<td>10.346</td>
<td>2</td>
<td>5.173</td>
<td>3.346</td>
<td>.039</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>171.593</td>
<td>111</td>
<td>1.546</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>181.939</td>
<td>113</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A Scheffe test (p = 0.043) applied to the ANOVA result illustrated that managers of Federal government organisations (μ = 2.71) are significantly more likely than managers of local government organisations (μ = 3.66) to prefer outsourcing to continued in-house production under conditions of environmental uncertainty.

The ‘competition’ variable, pertaining to the number of potential contractors from which to choose, and the ‘human expertise’ variable, while generally supported, were not significantly related to any organisational demographics, such as level of government or organisation type. Nor were any of the TCE-related variables associated with characteristics of manager respondents, such as attitude towards outsourcing.

This and the previous sections have summarised results derived from the survey questionnaire concerning several factors which can affect how outsourcing decisions are made. These factors are important in more fully understanding and providing context for the role that costs and costing information play in outsourcing decision making. The next section directly addresses that role.

5.6 Costing systems & costing methods

In addition to addressing the propositions which relate to the role and importance of costing systems in outsourcing decision-making, the analyses presented in this section and section 5.7 directly test the hypotheses that:

**H 5A.1**

Costs and costing information increase in importance in the outsourcing decision-making of Australian public sector organisations as organisation size increases.

**H 5B.1**

Costs and costing information are more important in the outsourcing decision-making of Australian local government organisations than in Australian budget-funded and self-funded public sector organisations, or State or Federal level public sector organisations.

Before considering the specific costing methods used in making outsourcing decisions, a broader view of managers’ perceptions of the adequacy of their organisations’ costing systems was obtained through analysis of Survey Question 10.
5.6.1 Costing systems

Respondents rated their organisations’ costing systems in terms of:
(a) adequacy and appropriateness of costing system information for making decisions;
(b) adequacy and appropriateness of costing system information for making outsourcing decisions; and,
(c) inexpensiveness to improve costing system.

Items (a) and (b) are proxies for costing system error costs – the less appropriate and less adequate the costing system for decision making; the less likely that decision-making will be financially sound. Item (c) concerns the discovery costs of obtaining better costing system information. Descriptives for responses to this question for the outsourcing organisations sample (n = 116), and for each organisation type, appear in Table 5.9 and further statistical analysis of responses are presented in Table 5.10.

Table 5.9 Costing system ratings – Descriptives (1 = VSA, 7 = VSD)\(^{13}\)

<table>
<thead>
<tr>
<th>Cost system descriptors</th>
<th>Local governments (n = 56)</th>
<th>Self-funded organisations (n = 31)</th>
<th>Budget-funded organisations (n = 29)</th>
<th>All organisations (n = 116)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Information for decision making</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>2.71</td>
<td>2.77</td>
<td>3.34</td>
<td>2.89</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>1.41</td>
<td>1.67</td>
<td>1.12</td>
<td>1.43</td>
</tr>
<tr>
<td>Range</td>
<td>1 - 7</td>
<td>1 - 7</td>
<td>1 - 6</td>
<td>1 - 7</td>
</tr>
<tr>
<td>(b) Information for outsourcing decision making</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>2.96</td>
<td>3.13</td>
<td>3.59</td>
<td>3.17</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>1.30</td>
<td>1.67</td>
<td>1.12</td>
<td>1.38</td>
</tr>
<tr>
<td>Range</td>
<td>1 - 6</td>
<td>1 - 7</td>
<td>1 - 6</td>
<td>1 - 7</td>
</tr>
<tr>
<td>(c) Inexpensiveness to improve</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>3.87</td>
<td>3.84</td>
<td>4.43</td>
<td>4.00</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>1.48</td>
<td>1.44</td>
<td>1.53</td>
<td>1.49</td>
</tr>
<tr>
<td>Range</td>
<td>1 - 7</td>
<td>1 - 6</td>
<td>1 - 7</td>
<td>1 - 7</td>
</tr>
</tbody>
</table>

\(^{13}\) Where VSA = Very Strongly Agree and VSD = Very Strongly Disagree. See section 3.8.1 for further information.
### Table 5.10 Costing system ratings – Paired samples correlations & t-tests

<table>
<thead>
<tr>
<th>Description</th>
<th>(b) Information for outsourcing decision making</th>
<th>(c) Inexpensiveness to improve (discovery costs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Information for decision making</td>
<td>Correlation 0.798</td>
<td>Correlation 0.201</td>
</tr>
<tr>
<td></td>
<td>$p &lt; 0.0005$</td>
<td>$p = 0.032$</td>
</tr>
<tr>
<td></td>
<td>$t = -3.338, p = 0.001$</td>
<td>$t = -6.368, p &lt; 0.0005$</td>
</tr>
<tr>
<td>(b) Information for outsourcing decision making</td>
<td>Correlation 1.000</td>
<td>Correlation 0.257</td>
</tr>
<tr>
<td></td>
<td>$p = 0.006$</td>
<td>$t = -5.071, p &lt; 0.0005$</td>
</tr>
</tbody>
</table>

Overall, respondents agreed that their organisations’ costing systems provided adequate and appropriate information for decision making (Table 5.9), and there was a high direct correlation between these responses and their views concerning the adequacy and appropriateness of costing system information for outsourcing decision-making (Table 5.10). Despite this correlation, a paired samples $t$-test showed that respondents were significantly less convinced of the adequacy and appropriateness of costing system information specifically for making outsourcing decisions ($\mu = 3.17$) than they were of the adequacy and appropriateness of costing information for decision making ($\mu = 2.89$) in general ($t = -3.338, p = 0.001$).

Table 5.9 shows that, on average, respondents neither agreed nor disagreed that the discovery costs associated with improving existing costing systems were inexpensive. Correlations (Table 5.10) indicate that perceptions concerning the usefulness of costing system information for decision making and for outsourcing decision-making are correlated with perceptions concerning costing system discovery costs. The paired samples $t$-tests illustrate that respondents were significantly less positive about the discovery costs of their costing systems than they were about the error costs. Examination of cross-tabulations of error cost and discovery cost data also indicated that in providing information for decision making, more than 55% of those who rated their organisations’ costing systems poorly, perceived that improvements to that system were not inexpensive. Such a pattern was not apparent among positively rated error costs responses.

Further analysis indicated no significant relationships between organisation type or organisation size and error costs and discovery costs, although there were significant differences based on two other variables – organisation location and level of government. Summary results of significant one and two-way ANOVA tests in relation to these variables are reported in Table 5.11.
<table>
<thead>
<tr>
<th>Cost system descriptors</th>
<th>One-way ANOVA: Organisation location</th>
<th>One-way ANOVA: Government level</th>
<th>Two-way ANOVA: Main &amp; interaction effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Information for decision making</td>
<td>not significant</td>
<td>significant</td>
<td>Significant main effect: Govt. level Interaction not significant</td>
</tr>
<tr>
<td>(b) Information for outsourcing decision making</td>
<td></td>
<td></td>
<td>Significant main effect: Govt. level Location marginally significant Interaction significant</td>
</tr>
<tr>
<td>(c) Discovery costs</td>
<td>not significant</td>
<td>not significant</td>
<td>not significant</td>
</tr>
</tbody>
</table>

As disclosed in row (a) of Table 5.11, level of government assists in explaining significantly different mean responses concerning the usefulness of costing systems for decision making per se. Test output appears in ANOVA Tables 2 & 3 below.

**ANOVA Table 2**

Tests of Between-Subjects Effects
Dependent Variable: Costing Information

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Eta Squared</th>
<th>Noncent. Parameter</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>56.511</td>
<td>16</td>
<td>3.532</td>
<td>1.918</td>
<td>.028</td>
<td>.244</td>
<td>30.681</td>
<td>.935</td>
</tr>
<tr>
<td>Intercept</td>
<td>474.444</td>
<td>1</td>
<td>474.444</td>
<td>257.584</td>
<td>.000</td>
<td>.731</td>
<td>257.584</td>
<td>1.000</td>
</tr>
<tr>
<td>GOVT. LEVEL</td>
<td>20.297</td>
<td>2</td>
<td>10.149</td>
<td>5.510</td>
<td>.005</td>
<td>.104</td>
<td>11.020</td>
<td>.841</td>
</tr>
<tr>
<td>STATE</td>
<td>17.305</td>
<td>6</td>
<td>2.884</td>
<td>1.566</td>
<td>.166</td>
<td>.090</td>
<td>9.393</td>
<td>.578</td>
</tr>
<tr>
<td>GOVT. LEVEL * STATE</td>
<td>16.572</td>
<td>8</td>
<td>2.071</td>
<td>1.125</td>
<td>.354</td>
<td>.087</td>
<td>8.997</td>
<td>.495</td>
</tr>
<tr>
<td>Error</td>
<td>174.980</td>
<td>95</td>
<td>1.842</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1163.000</td>
<td>112</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>231.491</td>
<td>111</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Computed using alpha = .05  
b R Squared = .244 (Adjusted R Squared = .117)

**ANOVA Table 3**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Grouping Variable: Level of government</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costing Information</td>
<td>Between Groups</td>
<td>20.144</td>
<td>2</td>
<td>10.072</td>
<td>5.289</td>
<td>.006</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>211.373</td>
<td>111</td>
<td>1.904</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>231.518</td>
<td>113</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Post-hoc tests revealed that Federal government organisation managers (μ = 4.00) are significantly less satisfied with the adequacy of their organisations' costing systems for decision making than are managers of organisations at local (μ = 2.68) and state government (μ = 2.80) levels.
Two independent variables appeared to be related to the adequacy and appropriateness of costing system information specifically for outsourcing decision-making according to the results summarised in row (b) of Table 5.11, and reported below in ANOVA Table 4.

**ANOVA Table 4**

Tests of Between-Subjects Effects
Dependent Variable: Outsourcing Information

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Eta Squared</th>
<th>Noncent. Parameter</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>71.065</td>
<td>16</td>
<td>4.442</td>
<td>2.943</td>
<td>.001</td>
<td>.331</td>
<td>47.095</td>
<td>.995</td>
</tr>
<tr>
<td>Intercept</td>
<td>558.098</td>
<td>1</td>
<td>558.098</td>
<td>369.848</td>
<td>.000</td>
<td>.796</td>
<td>369.848</td>
<td>1.000</td>
</tr>
<tr>
<td>GOVT. LEVEL</td>
<td>18.058</td>
<td>2</td>
<td>9.029</td>
<td>5.984</td>
<td>.004</td>
<td>.112</td>
<td>11.967</td>
<td>.871</td>
</tr>
<tr>
<td>STATE</td>
<td>18.805</td>
<td>6</td>
<td>3.134</td>
<td>2.077</td>
<td>.063</td>
<td>.116</td>
<td>12.462</td>
<td>.724</td>
</tr>
<tr>
<td>GOVT. LEVEL * STATE</td>
<td>27.759</td>
<td>8</td>
<td>3.470</td>
<td>2.299</td>
<td>.027</td>
<td>.162</td>
<td>18.396</td>
<td>.855</td>
</tr>
<tr>
<td>Error</td>
<td>143.354</td>
<td>95</td>
<td>1.509</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1327.000</td>
<td>112</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>214.420</td>
<td>111</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Computed using alpha = .05  
b R Squared = .331 (Adjusted R Squared = .219)

While the main effect of organisation location is only significant at the p = 0.063 level, level of government is significant at the p = 0.004 level and the interaction of location and government level is also significant (p = 0.027). Additional testing (ANOVA Table 5) of the significant main effect, level of government, showed that Federal government managers (μ = 4.14) perceive their organisations’ costing systems to be less appropriate and less adequate in providing information for outsourcing decision making than do local (μ = 2.00) and State government (μ = 3.02) organisation managers.

**ANOVA Table 5**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Grouping Variable: Level of government</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outsourcing Information</td>
<td>Between Groups</td>
<td>15.773</td>
<td>2</td>
<td>7.887</td>
<td>4.406</td>
<td>.014</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>198.692</td>
<td>111</td>
<td>1.790</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>214.465</td>
<td>113</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Applying the Scheffe test to this data (ANOVA Table 5), differences between Federal and local governments were significant at the p = 0.010 level and between Federal and State public sector organisations at the p = 0.015 level.

In contrast to the results for the error costs components of Question 10 reported above, the discovery costs component related only to one variable - organisation size. A t-test using the two category size variable was significant (t = -3.739 p <0.0005) showing that small organisations (μ = 3.40) have significantly lower costing system discovery costs than do large size organisations (μ = 4.46).
Overall, perceptions of costing system error and discovery costs were in line with the predictions of Cooper & Kaplan (1988) such that costing systems balance error and discovery costs and some organisations face high error costs because the discovery costs of obtaining better information are also high. While respondents rated their organisations' costing systems as adequate for decision-making purposes, they were significantly less convinced of the adequacy of these costing systems in providing information specifically for making outsourcing decisions. Managers of Federal government organisations perceived their costing systems to be significantly less adequate than did managers of local and State government organisations.

5.6.2 Costing method guidance

In further examining costing systems and methods, Question 12 of the survey asked respondents to specify the source of any prescribed methods their organisations use in costing outsourcing decisions. In 12 cases (75% of which were local governments) costing methods were prescribed by more than one source, most notably by both management policy and legislation. Results for the remaining 104 outsourcing organisations appear in Figure 5.5.

Figure 5.5 Sources of prescribed costing methods

Figure 5.5 illustrates that in 38% of organisations no prescribed method of costing for outsourcing decisions is used, and in approximately 36% of organisations, management of the organisation determines the costing methods to be applied.

5.6.3 Costing methods

Question 5 asked respondents to identify the in-house production cost estimation methods used, and external transaction costs included, in making outsourcing decisions.
The following table of relative frequencies (*Table 5.12*) presents information for each production and transaction cost type included in costing for outsourcing decisions in the surveyed organisations. Using the classification schema developed in Chapter 2 (*Table 2.4*), types of in-house production costs have been grouped into those deemed more appropriate and those less appropriate for use in outsourcing decision situations.

**Table 5.12 Costing methods used** (n=116)

<table>
<thead>
<tr>
<th>Production cost &amp; transaction cost types</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
<th>Don't Know</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IN-HOUSE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRODUCTION COSTS:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>More appropriate methods</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoidable costs</td>
<td>29.1%</td>
<td>23.6%</td>
<td>17.4%</td>
<td>13.6%</td>
<td>11.8%</td>
<td>4.5%</td>
<td>100%</td>
</tr>
<tr>
<td>Long-term costs</td>
<td>23.2%</td>
<td>30.4%</td>
<td>20.5%</td>
<td>14.3%</td>
<td>8.0%</td>
<td>3.6%</td>
<td>100%</td>
</tr>
<tr>
<td>Accrual basis</td>
<td>49.6%</td>
<td>14.4%</td>
<td>7.2%</td>
<td>9.0%</td>
<td>11.7%</td>
<td>8.1%</td>
<td>100%</td>
</tr>
<tr>
<td>DCF &amp; NFV techniques</td>
<td>8.1%</td>
<td>18.0%</td>
<td>20.8%</td>
<td>15.3%</td>
<td>26.1%</td>
<td>11.7%</td>
<td>100%</td>
</tr>
<tr>
<td>ABC costs</td>
<td>22.2%</td>
<td>17.6%</td>
<td>17.0%</td>
<td>9.3%</td>
<td>23.1%</td>
<td>10.2%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Less appropriate methods</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current (short-term) costs</td>
<td>36.0%</td>
<td>31.6%</td>
<td>14.4%</td>
<td>9.0%</td>
<td>6.3%</td>
<td>2.7%</td>
<td>100%</td>
</tr>
<tr>
<td>Allocated costs</td>
<td>46.4%</td>
<td>15.5%</td>
<td>9.0%</td>
<td>10.0%</td>
<td>13.6%</td>
<td>5.5%</td>
<td>100%</td>
</tr>
<tr>
<td>Full costs</td>
<td>39.7%</td>
<td>24.3%</td>
<td>14.4%</td>
<td>7.2%</td>
<td>9.0%</td>
<td>5.4%</td>
<td>100%</td>
</tr>
<tr>
<td>Cash basis</td>
<td>9.1%</td>
<td>11.8%</td>
<td>20.9%</td>
<td>12.7%</td>
<td>36.4%</td>
<td>9.1%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>TRANSACTION COSTS:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Search costs</td>
<td>11.7%</td>
<td>17.1%</td>
<td>17.1%</td>
<td>25.2%</td>
<td>24.4%</td>
<td>4.5%</td>
<td>100%</td>
</tr>
<tr>
<td>Transition costs</td>
<td>25.5%</td>
<td>22.7%</td>
<td>23.6%</td>
<td>14.6%</td>
<td>10.0%</td>
<td>3.6%</td>
<td>100%</td>
</tr>
<tr>
<td>Monitoring costs</td>
<td>21.6%</td>
<td>18.9%</td>
<td>29.8%</td>
<td>14.4%</td>
<td>11.7%</td>
<td>3.6%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Prior to analysis of statistically significant differences, there are some general conclusions and noteworthy points that can be made based on the raw percentage data reported in *Table 5.12*. For example, in making outsourcing decisions:

- most organisations claim to use an accrual rather than a cash-basis for costing in-house production, although such a result needs to be cautiously interpreted given that the ANAO (1998, #3.34) found that in Australian public sector organisations often accrual information and ‘full cost was determined by adding an allowance for non-cash items to approved cash budgets’;
- more sophisticated costing and financial decision-making techniques such as Discounted Cash Flow (DCF)/Net Present Value (NPV) methods and Activity Based Costing are used less frequently than most other methods;
- most organisations frequently use a full cost basis and include allocations of general overhead and governance costs in determining in-house production costs; and,
- many organisations only infrequently include estimates of the transaction costs associated with outsourcing, and this is most marked in the cases of contractor search and monitoring costs.
Further analysis of this data revealed that on average 14.7% of organisations rarely or never included any transaction costs and an average of 6% of respondents don’t know what types of in-house production costs and contractor-related transaction costs are used in costing for outsourcing decisions in their organisations. Most of these ‘don’t know’ respondents were CFOs (generally from self-funded organisations). Consequently, some CFOs do not know what costing methods are used to cost outsourcing decisions in their organisations.

While at first glance it would seem that many organisations use appropriate costing methods for making outsourcing decisions, there is a large overlap in individual responses for both appropriate and inappropriate costing method categories. For example, while 70.1% of those surveyed claim to use avoidable costs always, often or sometimes, 78.4% claim to use full costs as frequently. Similarly, while 74.1% of organisations use long-term costs always, often or sometimes, 82% claim to use current costs as often. In this latter case, it is understandable that respondents could provide the same answer to both questions if both current and long-term costs are included in cost estimates. The explanation is more difficult in the case of avoidable and full costs, although some respondents may be including avoidable costs as a subset of full costs, and consequently providing the same answer to both questions. To better interpret these responses it was necessary to eliminate the double counting on a case by case basis.

Only 6.3% of organisations always or often use avoidable costs while rarely or never using full costs. 15.3% of organisations use full costs always or often, and rarely or never use avoidable costs. However, some 41.4% of organisations always or often use both avoidable and full costs. Similarly, 50% of organisations use avoidable costs always or often, and 77.6% of these just as frequently include allocations of general overhead and governance costs in estimates of in-house production costs. These general overhead and governance costs would in most cases constitute unavoidable costs.

Such contradictory approaches to costing may well be a product of the misguidance and ambiguity of government costing directions, although other explanations exist. One such explanation is that managers have little understanding of the nature of costs and cost accounting. These points are pursued in Chapter 6.
Using t-tests and ANOVA procedures, and ignoring the ‘don’t know’ response category for all costing method items appearing in Question 5, several significant differences in the use of particular methods were found. In terms of organisation size, the only significant difference was that smaller organisations (μ = 3.02) are more likely than large organisations (μ = 3.69) to explicitly consider the costs of searching for appropriate contractors (t = -2.477, p = 0.015). Other significant differences were detected for several components of the question, according to organisation type, level of government, and location. Summary results are reported in Table 5.13.

**Table 5.13 Costing methods – Significant differences**

<table>
<thead>
<tr>
<th>Production cost &amp; transaction cost types</th>
<th>Organisation type</th>
<th>Government level</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRODUCTION COSTS:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoidable costs</td>
<td></td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Accrual basis</td>
<td></td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>DCF &amp; NPV techniques</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ABC costs</td>
<td></td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Allocated costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANSACTION COSTS:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitoring costs</td>
<td></td>
<td></td>
<td>✔</td>
</tr>
</tbody>
</table>

As Table 5.13 indicates, government level is a key factor in assisting to explain significant differences in the frequency of use of particular costing methods. ANOVA Table 6 presents output related to several of these significant differences:

**ANOVA Table 6**

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Grouping Variable: Level of government</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoidable Costs</td>
<td>Between Groups</td>
<td>17.907</td>
<td>2</td>
<td>8.953</td>
<td>4.189</td>
<td>.018</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>226.534</td>
<td>106</td>
<td>2.137</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>244.440</td>
<td>108</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accrual Basis</td>
<td>Between Groups</td>
<td>19.612</td>
<td>2</td>
<td>9.806</td>
<td>3.376</td>
<td>.038</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>310.788</td>
<td>107</td>
<td>2.905</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>330.400</td>
<td>109</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DCF &amp; NPV Techniques</td>
<td>Between Groups</td>
<td>15.438</td>
<td>2</td>
<td>7.719</td>
<td>3.543</td>
<td>.032</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>233.116</td>
<td>107</td>
<td>2.178</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>248.555</td>
<td>109</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Avoidable costs were used significantly less frequently by Federal government organisations (μ = 3.71) compared to both local government (μ = 2.48) and State government organisations (μ = 2.54), according to Scheffe tests significant at the p = 0.022 and p = 0.038 levels respectively. Similarly, Federal government organisations (μ = 3.50) used accrual-based costing information significantly less frequently than local government organisations (μ = 2.20), using a Scheffe test yielding p = 0.043. Federal and local government organisations were also found to differ in respect of frequency of
use of DCF/NPV information, such that Federal government organisations (μ = 4.57) used DCF/NPV techniques significantly less frequently than local government organisations (μ = 3.40) using a Scheffe test yielding p = 0.033.

Frequency of use of DCF/NPV techniques was also associated with organisation location, as indicated in Table 5.13 above and ANOVA Table 7 below.

ANOVA Table 7

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Grouping Variable: Organisation location</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCF &amp; NPV Techniques</td>
<td>Between Groups</td>
<td>35.454</td>
<td>3</td>
<td>11.818</td>
<td>5.651</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>184.024</td>
<td>88</td>
<td>2.091</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>219.478</td>
<td>91</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Further testing via a series of pairwise $t$-test comparisons revealed that Victorian organisations (μ = 2.526) were significantly more likely to use DCF/NPV techniques in making outsourcing decisions than organisations in either NSW (μ = 4.171) or Queensland (μ = 4.708), significant at the p = 0.001 level in both instances.\(^{14}\)

Since frequency of use of DCF and NPV techniques appeared to be associated with both level of government and organisation location a two-way ANOVA was performed. However, the interaction of organisation location and level of government was found to be non-significant ($F = 0.688$ p = 0.701). Thus the influence of level of government on the use of DCF and NPV techniques does not depend on organisation location.

Table 5.13 also shows that use of ABC information in outsourcing decision-making was related to both organisation type and level of government. Relevant ANOVA output appears in ANOVA Table 8 below.

ANOVA Table 8

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Grouping Variable: Level of government</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC Costs</td>
<td>Between Groups</td>
<td>49.609</td>
<td>2</td>
<td>24.806</td>
<td>9.905</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>260.447</td>
<td>104</td>
<td>2.504</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>310.056</td>
<td>106</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^{14}\) Individual pairwise $t$-tests had to be run to assess the significance of the organisation location variable re use of DCF/NPV techniques, since post-hoc tests could not be performed due to limited cell sizes. Significant differences for the $t$-tests were determined using Bonferroni-adjusted significance levels. Differences were detected after applying an adjusted significance level of 0.0018 (0.05 sig. level divided 28 comparisons for 8 States/Territories).
Federal government organisations ($\mu = 4.71$) were significantly less likely to use ABC in costing for outsourcing decisions compared to both local ($\mu = 2.67$) and State government organisations ($\mu = 3.44$). Using the Scheffé test, the differences were significant at the $p < 0.0005$ level between Federal and local governments, and at the 0.038 level between Federal and State governments. Tests according to organisation type (see ANOVA Table 9) showed that local government organisations ($\mu = 2.68$) use ABC information significantly more frequently than either budget-funded ($\mu = 3.69$) or self-funded organisations ($\mu = 3.79$), significant at the 0.040 and 0.018 levels respectively. Again a two-way ANOVA failed to produce a significant interaction ($F = 0.055 \ p = 0.815$) between the two potential, explanatory variables.

ANOVA Table 9

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Grouping Variable: Organisation type</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC Costs</td>
<td>Between Groups</td>
<td>30.256</td>
<td>2</td>
<td>15.128</td>
<td>5.623</td>
<td>.005</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>279.800</td>
<td>104</td>
<td>2.690</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>310.056</td>
<td>106</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A significant difference in the frequency of use of allocated costs in outsourcing decision making was noted earlier in Table 5.13. Only the organisation location variable proved useful in elucidating differences. Due to limited cell sizes as a result of the small number of respondents from the less populous States and Territories, and after examination of the data, an ANOVA only needed to be run comparing four States (ANOVA Table 10).

ANOVA Table 10

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Grouping Variable: Organisation location</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allocated Costs</td>
<td>Between Groups</td>
<td>40.796</td>
<td>3</td>
<td>13.599</td>
<td>5.032</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>237.813</td>
<td>88</td>
<td>2.702</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>278.609</td>
<td>91</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A Scheffé test yielded a significant difference ($p = 0.004$) to the effect that Victorian organisations ($\mu = 1.52$) are significantly more likely than those in NSW ($\mu = 3.09$) to include an allocation of general organisation overhead and governance costs in determining the costs of in-house provision for use in making outsourcing decisions.

The final significant costing method difference noted in Table 5.13, and reported in full in ANOVA Table 11, concerns the frequency with which organisations from different levels of government formally consider the future costs of monitoring contractors'
performance and compliance with contract specifications in making outsourcing decisions (i.e., monitoring costs).

**ANOVA Table 11**

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Grouping Variable: Level of government</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sgl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring Costs</td>
<td>Between Groups</td>
<td>15.277</td>
<td>2</td>
<td>7.638</td>
<td>4.218</td>
<td>.017</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>193.778</td>
<td>107</td>
<td>1.811</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>209.055</td>
<td>109</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Using a Scheffe test, the difference was significant at the 0.018 level, showing that local governments ($\mu = 2.62$) consider monitoring costs significantly more frequently than do Federal government organisations ($\mu = 3.79$).

Data concerning the costing methods issue was further explored by conducting factor analyses on the items comprising Question 5. The purposes and procedures for doing so were discussed in Chapter 3, the aim being to use the factor analyses for establishing consistency and convergent validity among items within instruments, and conceptual distinctiveness and discriminant validity between instruments. Cronbach’s alpha coefficients were calculated to assess the reliability of instruments.

The initial factor analysis was run using all the items in Question 5 pooled together. Of all the production and transaction cost items provided in the question, only one item, production costs determined on a *cash basis*, was not significantly correlated with most other items, and failed to load on a factor at the 0.5 level or above. This item was excluded from further analyses.

All other production cost items were directly and significantly correlated at the 0.005 level or better and, with few exceptions, all transaction cost items and production cost items were also significantly correlated at the 0.01 level or better. The KMO of the combined production and transaction cost measures was 0.862, which provides assurance concerning factorability. Two factors, with eigenvalues in excess of 1, were extracted, explaining over 53% of total variance. As described in section 5.2, factors were extracted using principal axis factoring and varimax rotation, with Kaiser normalisation. Factor 1 included all eight production cost methods (both appropriate and inappropriate methods), while Factor 2 included all three transaction cost items, illustrating the distinctiveness of the production versus transaction cost elements. However, this analysis, and a separate factor analysis of production cost method items
alone, failed to illustrate a distinction between appropriate and inappropriate production cost methods.

Removing all transaction cost items, the eight production cost items were factor analysed (KMO = 0.844) and only one factor was extracted, with an eigenvalue of 3.743, explaining approximately 47% of total variance. All production cost items loaded on this single factor at approximately the 0.5 level or better – the lowest loading, of 0.484, was for the ABC costs item. The eight item production cost measure possessed a relatively high Cronbach’s alpha coefficient of 0.8334.\(^{15}\)

Another factor analysis (KMO = 0.663) of the three item transaction costs measure alone evidenced that all three items loaded at the 0.633 level or better on a single factor with an eigenvalue of 2.007, explaining about 67% of total variance. This measure produced an alpha coefficient of 0.7516.

While both the production and transaction cost measures demonstrate high levels of reliability, it was of some concern that no distinction between appropriate and inappropriate costing methods was apparent in the responses obtained from managers. To further investigate this issue two additional analyses were conducted and provided some basis for concluding that there are differences in the appropriateness or relevance of particular costing methods for making outsourcing decisions.

For the two additional factor analyses the production costs items were divided into two groups – those representing costing methods deemed appropriate for making outsourcing decisions and those deemed inappropriate, as determined in Chapter 2. Each production cost group was then amalgamated with the three-item transaction cost measure and the factor analyses re-run. The combined five-item appropriate costing methods measure and the three-item transaction costs measure loaded on a single factor with an eigenvalue of 3.393, explaining 42.4% of total variance (KMO = 0.836). However, when the three-item inappropriate production cost measure and the three-item transaction costs measure were combined and factor analysed (KMO=0.784) two factors

\(^{15}\) Lampe et al. (1999) demonstrate that the minimum value for an alpha coefficient can be less than zero, and the maximum value less than one, and while warning against making comparisons with alpha coefficients from other studies, or using benchmark alphas, the approach nevertheless seems popular in the management accounting literature (Brownell 1995). Statisticians (Hair et al. 1998) suggest that a coefficient of 0.6 is the minimum acceptable, and since all the coefficients reported in this section exceed this, the factor measures are regarded as reliable.
with eigenvalues in excess of 1 were extracted, explaining 66.5% of variance. All three inappropriate costing method items loaded on one factor at the 0.5 level or better, and all three of the transaction cost items loaded on another factor at the 0.5 level or better.

Collectively, these various factor analyses demonstrate that:

- the production cost and transaction cost measures developed and used were conceptually distinct and possessed good to very good levels of reliability;
- there are some systematic differences between the use of particular production cost methods and the inclusion of transaction costs in making outsourcing decisions; and,
- there is a significant, direct correlation between the use of appropriate production cost methods and the recognition of transaction costs, and this combination produces a singular and conceptually distinct costing measure for making outsourcing decisions; but,
- while there is a significant, direct correlation between the use of most inappropriate production cost determination methods and most transaction cost measures, the two measures are conceptually distinct.

These results provide some evidence validating the usefulness of grouping production cost methods into appropriate and inappropriate categories. The results also demonstrate an association between the use of more appropriate costing methods and the concomitant inclusion of transaction costs in making outsourcing decisions.

Whether organisations use appropriate or inappropriate methods, the cost savings objective ascribed by governments to the practice of outsourcing must rest on a presumption that organisations will, in some manner or other, determine or evaluate whether savings are made. Results relating to the evaluation of outsourcing decisions appear in the next section.

5.7 Evidence of cost savings

Several questions in the survey (Questions 6, 7 & 8) addressed the issue of whether organisations engage in post-decision evaluations of outsourcing, what evidence they collect to assist in these evaluations, and whether cost savings appear to be achieved.
5.7.1 Post-decision evaluations

Initially, respondents were asked if their organisations made formal, post-decision evaluations of the cost economy of outsourcing (Question 6). A cross-tabulation of frequency percentages, according to organisation type, appears in Table 5.14

Table 5.14  Outsourcing decision evaluations

<table>
<thead>
<tr>
<th>Frequency of formal evaluations</th>
<th>Overall</th>
<th>Local government organisations</th>
<th>Self-funded organisations</th>
<th>Budget-funded organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 109</td>
<td>n = 53</td>
<td>n = 29</td>
<td>n = 27</td>
</tr>
<tr>
<td>Always</td>
<td>15.6%</td>
<td>22.6%</td>
<td>13.8%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Often</td>
<td>32.1%</td>
<td>34.0%</td>
<td>34.5%</td>
<td>25.9%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>27.5%</td>
<td>22.6%</td>
<td>24.1%</td>
<td>40.7%</td>
</tr>
<tr>
<td>Rarely</td>
<td>12.8%</td>
<td>15.1%</td>
<td>7.0%</td>
<td>14.8%</td>
</tr>
<tr>
<td>Never</td>
<td>7.3%</td>
<td>3.8%</td>
<td>10.3%</td>
<td>11.2%</td>
</tr>
<tr>
<td>Don’t Know</td>
<td>4.6%</td>
<td>1.9%</td>
<td>10.3%</td>
<td>3.7%</td>
</tr>
<tr>
<td>TOTALS</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 5.14 discloses that relatively few organisations always evaluate the cost outcome of outsourcing decisions, and some 20% rarely or never make such evaluations. Don’t know responses were principally from self-funded organisations and were not included in further analysis. Mean and median responses concerning frequency of evaluation of outsourcing decisions were ‘Often’ for the local government sub-sample and ‘Sometimes’ for the self-funded and budget-funded sub-samples. There were no statistically significant differences in responses based on organisation type, organisation size, or location, although there was a significant difference based on level of government (see ANOVA Table 12).

ANOVA Table 12

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Grouping Variable: Level of government</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation</td>
<td>Between Groups</td>
<td>8.562</td>
<td>2</td>
<td>4.281</td>
<td>3.437</td>
<td>.036</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>125.813</td>
<td>101</td>
<td>1.246</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>134.375</td>
<td>103</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Scheffe test result (p = 0.041) indicated that managers of Federal government organisations (µ = 3.36) are significantly less likely to evaluate the ex post cost outcome of outsourcing decisions than are managers of local governments (µ = 2.42).

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16 There were seven missing or unusable responses to this question, reflected above by the reduction in overall sample size from n = 116 to n = 109. This item non-response was not significant.
5.7.2 Cost outcomes

Only outsourcing organisations that formally evaluate outsourcing decisions \((n = 109)\) were required to answer survey Question 7. The question asks whether the most frequent outcome of such evaluations is that costs increased, decreased, or remained the same, after outsourcing. Twenty respondents to this question indicated they were unsure of the cost outcome or that evaluations had not really been made on a cost basis, despite what they had indicated in the previous question (see section 5.7.1), and this reduces the effective sample size for Question 7 to 89 respondents. Of these remaining 89 respondents, 55% claim that outsourcing generally produces cost decreases, while 18% indicated that costs usually increase after outsourcing. In 27% of cases respondents claim that costs usually remain the same. These results were somewhat less consistent across organisation type as demonstrated in Table 5.15.

<table>
<thead>
<tr>
<th>Evaluation outcome</th>
<th>Local government organisations (n = 53)</th>
<th>Self-funded organisations (n = 21)</th>
<th>Budget-funded organisations (n = 21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs decreased</td>
<td>57.4%</td>
<td>57.1%</td>
<td>47.6%</td>
</tr>
<tr>
<td>Costs increased</td>
<td>10.6%</td>
<td>23.8%</td>
<td>28.6%</td>
</tr>
<tr>
<td>Costs remained the same</td>
<td>32.0%</td>
<td>19.1%</td>
<td>23.8%</td>
</tr>
</tbody>
</table>

Table 5.15 shows that decreasing or unchanged costs after outsourcing are claimed to be the usual outcome for almost 90% of local government organisations, while only 76% of self-funded organisations and 71% of budget-funded organisations generally claim to achieve similar outcomes.

To test for significant differences with reference to demographic variables, chi-square analyses were deemed more appropriate than ANOVA since there were only three levels of the evaluation outcome variable (ie. costs increased, decreased, or remained the same). Analysis showed no significant differences in cost outcomes of post-outsourcing decision evaluations based on organisation type or organisation size. Additionally, no significant differences were noted based on level of government or on a comparative analysis of organisations in the major Australian states.
Since costs and cost outcomes are primary concerns of this research, a number of tests using one-way and factorial ANOVA were also conducted. These tests failed to produce significant results – for example:

- there are no significant differences between the use of particular costing methods, tested individually or on a multivariate basis, and the claimed cost outcome of outsourcing decisions;
- nor are there any significant associations between the propensity for organisations to include transaction cost estimates in pre-outsourcing evaluations with the post-hoc claimed cost outcome of outsourcing decisions;
- ratings of cost system adequacy and appropriateness for decision making, and for outsourcing decision making, are not significantly associated with the claimed cost outcome of outsourcing decisions; and,
- claimed cost outcomes are also not significantly related to the level of discovery costs associated with organisations' costing systems.

A chi-square comparison of organisational outsourcing adoption ratings (Question 9) with the claimed cost outcomes of post-outsourcing decision evaluations was made for the 89 useable responses to Question 7. The test was significant ($\chi^2 = 10.821$, df 4, $p = 0.029$), although not in the direction expected, as Table 5.16 illustrates.

| Table 5.16  Outourcing outcome & organisational adoption of outsourcing |
|-------------|-----------------|-----------------|---------------|
| Evaluation outcome | Active adoption $n = 40$ | Neutral adoption $n = 33$ | Reluctant adoption $n = 16$ |
| Costs decreased | 55.0% | 51.5% | 62.5% |
| Costs increased | 30.0% | 36.4% | 0.0% |
| Costs remained the same | 15.0% | 12.1% | 37.5% |

Table 5.16 shows that not one manager who rated their organisation as a 'reluctant' outsourcer claimed cost increases were the usual outcome of outsourcing. Therefore, according to their managers, organisations reluctant to engage in outsourcing are more likely to experience reduced or unchanged costs as the result of outsourcing than are active or neutral outsourcers. This result suggests organisations rated as 'reluctant' outsourcers by their managers might only outsource when costs savings appear to be or are achievable. However, other explanations for this result may exist.
One such explanation may relate to respondents' personal attitudes toward outsourcing. Chi-square analysis revealed a significant difference ($\chi^2 = 15.348$, df 4, $p = 0.004$) between the cost outcomes of outsourcing reported by respondents with negative personal attitudes towards outsourcing and those with positive attitudes. The results indicate that managers with positive attitudes towards outsourcing are more likely to report that outsourcing produces cost savings than are managers with negative attitudes. While this result further illuminates perceptual biases which may impact claims of cost savings by managers, it might also reflect managers' experiences with outsourcing such that positive attitudes toward outsourcing are produced by successful (cost saving) outsourcing experiences and vice versa.

5.7.3 Evidentiary material

Question 8 was open-ended, requiring respondents to state what kinds of evidence are produced by their organisations to prove if outsourcing decreases costs and/or improves efficiency. Results show that most organisations make outsourcing decision evaluations on inappropriate bases or on the basis of non-cost factors.

Despite having claimed in Question 6 that their organisations formally evaluate outsourcing decisions, and in Question 7 that cost increases, decreases or unchanged costs resulted from outsourcing, 17.5% of organisations produce no evidence to prove if cost savings or efficiency gains result from outsourcing.

The remaining respondents identified 138 items of evidence, with a mean of 1.6 items of evidence provided per respondent. The items of evidence noted were qualitatively analysed, coded, and classified into 11 categories. Results for the seven most frequently cited types of evidence appear in Table 5.17. Details concerning codes and categories for this analysis appear in Appendix 6.
Table 5.17 Evidence types

<table>
<thead>
<tr>
<th>Evidence type</th>
<th>Response frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-cost measures</td>
<td>27.6%</td>
</tr>
<tr>
<td>Prior in-house costs v. budgeted outsource costs</td>
<td>16.5%</td>
</tr>
<tr>
<td>Basic cost-related measures</td>
<td>15.0%</td>
</tr>
<tr>
<td>Actual outsource costs v. budgeted outsource costs</td>
<td>14.2%</td>
</tr>
<tr>
<td>Actual outsource costs v. prior in-house costs</td>
<td>7.1%</td>
</tr>
<tr>
<td>Benchmark study comparisons</td>
<td>7.1%</td>
</tr>
<tr>
<td>Cost/benefit analyses</td>
<td>6.3%</td>
</tr>
<tr>
<td>Other*</td>
<td>6.2%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

* All other categories of evidence accounted for less than 1.6% of total evidence items cited, and included: comparison of in-house v. outsource labour costs, comparison of current v. future outsource costs, staffing analyses, and physical assets analyses.

As Chapter 2 detailed, evidence to prove if cost savings have been made from outsourcing would involve a comparison of the prior in-house costs of providing the service with the actual costs of outsourcing for the provision of that service. As Table 5.17 reveals, only 7.1% of organisations appear to collect this information, none of which were budget-funded organisations. Comparing budgeted and actual outsource costs may also provide appropriate information for establishing whether cost savings have been made, provided that an in-house/outsource cost comparison had been made prior to outsourcing. At best then, only 21.3% of organisations produce evidence relevant to the determination of whether cost savings are derived from outsourcing (refer to the two highlighted rows in Table 5.17).

Table 5.17 shows that in assessing decisions, post-outsourcing, the most frequently produced evidentiary material pertains to non-cost information. This was also the modal response for each organisation type, and over 31% of these organisations collected more than one type of non-cost evidence. These non-cost measures included customer feedback surveys, staff outcome surveys, delivery time assessments, quality assessments, and client complaint statistics. These measures may help evidence quality improvements or declines from outsourcing, but not cost savings.

Comparison of prior in-house costs v. budgeted outsource costs was the second most frequently cited (16.5%) 'evidence' for establishing if cost savings have been made. However, this comparison does not provide useful evidence, nor does it represent a post-decision evaluation mechanism. This comparison should be made prior to

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17 Note however that non-cost evidence was counted only once per organisation in preparing Table 5.17.
outsourcing and further, takes no account of differentials between budgeted and actual outsource costs.

Fifteen percent of organisations used ‘Basic cost-related measures’. In the words of respondents, these measures were ‘minimal’, ‘ad-hoc and not formally consolidated’, ‘not followed up to determine actual costs incurred’, ‘done at times’, of ‘limited detail’ and involving ‘simple calculations’. Consequently, such measures are unlikely to provide information appropriate for establishing the achievement of cost savings.

Section 5.7 has presented results concerning the evaluation of outsourcing decisions pursuant to the cost savings objective. The key results indicated that:

- 20% of organisations rarely or never evaluate the cost outcomes of outsourcing;
- 55% of respondents claim that outsourcing produces cost savings;
- managers with positive attitudes toward outsourcing were significantly more likely to claim that outsourcing leads to cost savings; but,
- less than 22% of organisations collect information appropriate to determining if outsourcing does or does not reduce costs.

Taken together with previous sections, the results to this point reveal that most organisations pursue non-cost objectives, as well as or instead of the cost savings objective, often use inappropriate costs in making outsourcing decisions, and do not evaluate the cost economy of those decisions after the fact. As these results and those of Chapter 4 suggest, there must be many other, non-cost factors that are important in making outsourcing decisions.

5.8 Factors in making outsourcing decisions

Question 4 of the survey questionnaire was designed to fulfil several roles, one being to further assess the reasons why Australian public sector organisations engage in outsourcing. The question included five main criteria or factors that might be involved in making outsourcing decisions, and was developed from the pattern-matching analysis of depth interview data reported in Chapter 4.

Using a 100% base, the 116 outsourcer respondents were asked to make an assessment of the percentage weighting of each of five factors in making outsourcing decisions. Descriptive statistics for each of the key factors appears in Table 5.18.
Table 5.18 shows managers claim that cost and financial factors are the single most important consideration in outsourcing decision-making, with an average importance weighting of 37.3%, followed by staff-related factors at 24.3%. This result accords with the findings (reported in section 5.4) of an open-ended question where respondents provided written answers concerning the reasons for their organisations engaging in outsourcing. In that analysis, cost factors, followed by staff factors, were also the most important reasons overall and for each organisation type.

The data concerning each of the five factors (see Table 5.18) was further analysed using one and two-way ANOVA procedures and t-tests. No significant differences were found in mean weightings given to each of the five factors according to whether organisations were small or large, nor based on level of government or the interaction of organisation size and level of government with other variables. However, both organisation type and organisation location proved to be useful in illuminating differences in the weightings of factors. There were, however, no significant differences, based on any of the demographic variables, in the weightings given to cost and financial factors, or to ‘other’ factors.

Because different legislative and political imperatives exist in different states (eg. CCT legislation in Victoria), a comparison made along this dimension had potential to add value in understanding the factors important in making outsourcing decisions. An ANOVA comparison for each factor was made between the five most populous Australian states. Analysis revealed statistically significant differences in mean responses (ANOVA Table 13) between organisations in different states in relation to ‘Quality & customer factors’ and ‘Staffing and labour-related factors’.

---

18 Tasmania and the two territories were not included in this analysis because of the relatively small number of respondents from these locations.
**ANOVA Table 13**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Grouping Variable: Organisation location</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality &amp; Customer Factors</td>
<td>Between Groups</td>
<td>.596</td>
<td>4</td>
<td>.149</td>
<td>6.023</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>2.449</td>
<td>99</td>
<td>2.474E-02</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3.045</td>
<td>103</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staffing &amp; Labour Factors</td>
<td>Between Groups</td>
<td>.475</td>
<td>4</td>
<td>.119</td>
<td>2.944</td>
<td>.024</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>3.993</td>
<td>99</td>
<td>4.033E-02</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>4.468</td>
<td>103</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A *post-hoc* Scheffé test (p = 0.002) showed that quality and customer-related factors are more important in the outsourcing decision-making of Victorian organisations (μ = 30%) than in NSW organisations (μ = 13.7%). Conversely, another Scheffé test (p = 0.05) showed that staffing and labour-related factors are more important in the outsourcing decisions of NSW organisations (μ = 30%) than in Victorian organisations (μ = 14.8%).

A two-way ANOVA of mean weightings for contractor factors according to both organisation location (State) (p = 0.821) and organisation type (p = 0.695) failed to find either of these main effects significant. However, there was a significant interaction (p = 0.047) between the two (see **ANOVA Table 14**).

**ANOVA Table 14**

Tests of Between-Subjects Effects

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig. Eta Squared</th>
<th>Noncent. Parameter</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>.746</td>
<td>1</td>
<td>.746</td>
<td>81.812</td>
<td>000</td>
<td>.479</td>
<td>81.812</td>
</tr>
<tr>
<td>STATE</td>
<td>1.392E-02</td>
<td>4</td>
<td>3.480E-03</td>
<td>.382</td>
<td>.821</td>
<td>.017</td>
<td>1.526</td>
</tr>
<tr>
<td>ORG TYPE</td>
<td>6.651E-03</td>
<td>2</td>
<td>3.326E-03</td>
<td>.365</td>
<td>.699</td>
<td>.008</td>
<td>.729</td>
</tr>
<tr>
<td>STATE * ORG TYPE</td>
<td>.151</td>
<td>8</td>
<td>1.892E-02</td>
<td>2.075</td>
<td>.047</td>
<td>.157</td>
<td>16.601</td>
</tr>
<tr>
<td>Error</td>
<td>.812</td>
<td>89</td>
<td>9.120E-03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.237</td>
<td>104</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Computed using alpha = .05
b R Squared = .162 (Adjusted R Squared = .031)

The significance of such an interaction means that the effect of organisation location on the importance afforded contractor factors does depend on organisation type. Based on a multiple line plot, this interrelationship was most noticeable in the case of Queensland, where organisation type is most influential in helping to explain the importance respondents afforded contractor-related factors. An extract from the multiple line plot appears in **Figure 5.6** showing plots only for Queensland, and for
South Australia; the state exhibiting the next most deviation according to organisation type.

**Figure 5.6 Contractor factors: Organisation location & type**

A simple analysis of effects using one-way ANOVA (*ANOVA Table 15*) revealed that in Queensland, contractor factors are afforded more importance in the outsourcing decisions of budget-funded organisations ($\mu = 19.2\%$) than they are in self-funded organisations ($\mu = 1.25\%$). The Scheffe test of the result was significant ($p = 0.026$).

**ANOVA Table 15**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Grouping Variable: Organisation type - Queensland only</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractor factors</td>
<td>Between Groups</td>
<td>8.283E-02</td>
<td>2</td>
<td>4.141E-02</td>
<td>5.592</td>
<td>.021</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>8.146E-02</td>
<td>11</td>
<td>7.405E-03</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.164</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The next biggest deviation, based on the multiple line plot (*Figure 5.6* above), was in SA, but proved to be non-significant ($p = 0.138$).

Further analysis of the data showed that while several respondents identified cost reduction as the sole goal of outsourcing in their answers to an open-ended question (Question 3) such a result was not apparent for Question 4. Not one respondent gave cost and financial factors a 100% importance rating in making outsourcing decisions, although nine respondents$^{19}$ gave cost and financial factors a zero importance weighting. Respondents providing this zero weighting instead split weightings over

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$^{19}$ Consisting of 3 local governments, 1 self-funded organisation and 4 budget-funded organisations.
factors such as staff-related and quality factors, and three rated 'Other factors' at between 70-100% importance. In all three cases the 'Other factor' was a legislative imperative. Including these three organisations, a total of twenty (17.2%) organisations listed 'other' factors as being of importance in making outsourcing decisions. Legislative or government directives and mandates were the modal 'other' factor, attracting a mean importance weighting of 50%.

Questions 13 and 14 of the survey questionnaire asked for managers' opinions concerning the benefits and problems of outsourcing. All managers, including those from non-outsourcing organisations, were required to answer both questions. These questions provided further information concerning the reasons important in organisations' decisions to outsource or not to outsource, and so outsourcer and non-outsourcer responses have been used in the analysis to provide a comprehensive picture.

5.8.1 Benefits of outsourcing

Question 13 contained 25 statements relating to the claimed benefits of outsourcing, and was developed from the results and findings of the prior steps in the research, including the content analysis study, case study, and individual depth interviews. Actual responses to each statement ranged from (1) Very Strongly Agree to (7) Very Strongly Disagree, with the exception of the statement claiming that outsourcing provides better accounting information, for which there were no 'very strongly agree' responses. The mean response to most statements, including the statement that outsourcing decreases the costs of providing services, was a neutral response, which was not unanticipated and pointed to the need to employ a variety of other statistical analysis techniques to better examine the data. A mean 'Agree' response was recorded for several statements. Public sector managers agreed that outsourcing:

- enables the benchmarking of performance against the market ($\mu = 3.26$);
- allows for market testing ($\mu = 3.01$);
- reduces labour relations problems ($\mu = 3.38$);
- is useful when complex and technical services are required ($\mu = 2.95$);
- increases ability to restructure operations ($\mu = 3.09$);
- enables reduction of investment in physical assets ($\mu = 3.02$);
- enables workforce reductions ($\mu = 2.94$); and, most positively answered of all,
- provides access to better specialist expertise ($\mu = 2.82$).

Only one statement achieved a mean disagree response; that outsourcing reduces opportunities for corruption and payoffs ($\mu = 4.72$).
While there were no significant relationships between responses to any of the 25 statements and the type of organisation from which respondents were drawn, the statement concerning outsourcing being 'necessary to satisfy government policy' was answered significantly differently based on organisation size. A t-test was significant at the 0.01 level \( t = 2.623 \), indicating that managers of large organisations \( (\mu = 3.18) \) are more likely than managers of small organisations \( (\mu = 3.85) \) to agree that outsourcing is necessary to satisfy government policy.

Another statement in Question 13, to the effect that outsourcing reduces management's load, was answered significantly differently (Scheffe test \( p = 0.048 \)) on the basis of level of government \( (ANOVA \ Table \ 16) \).

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Grouping Variable: Level of government</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Slg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Load</td>
<td>Between Groups</td>
<td>8.865</td>
<td>2</td>
<td>4.433</td>
<td>3.233</td>
<td>.043</td>
</tr>
<tr>
<td></td>
<td>Within Groups</td>
<td>172.732</td>
<td>126</td>
<td>1.371</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>181.597</td>
<td>128</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Further analysis indicated that managers of Federal government organisations \( (\mu = 5.00) \) are significantly less likely to perceive that outsourcing reduces management's load compared to managers of State government organisations \( (\mu = 4.12) \).

Responses to the statements contained within Question 13 did not vary significantly according to organisational outsourcing adoption levels. However, as expected for a question of this nature, responses to twenty-two of the twenty-five 'claimed benefits of outsourcing' statements varied significantly (at the 0.05 level or better) and in the anticipated direction, according to respondents' personal attitudes to outsourcing.

The three exceptions were the statements concerning benchmarking, workforce reductions, and government policy. However, for all statements the mean responses were more positive from those individuals with positive attitudes towards outsourcing than were those from those with neutral attitudes. Those possessing neutral attitudes also responded more positively for all statements than did those with negative attitudes.

Since costing issues are paramount in terms of the aims and objectives of the research, the statement (in Question 13) that outsourcing decreases the costs of providing services was tested against a range of other relevant variables. The costing methods used by
organisations, managers' evaluations of the adequacy of their organisations' costing systems, and organisations' levels of adoption of outsourcing produced no significant results and, therefore, did not assist in explaining responses to the cost reduction statement. However, two other variables, managers' personal attitudes to outsourcing (Question 15) and cost outcomes of outsourcing (Question 7), proved useful. Note that these two variables are also significantly related to each other, as reported in section 5.7.2. Multivariate ANOVA (ANOVA Table 17) indicated that cost outcome, but not personal attitude to outsourcing, had a significant main effect ($F = 10.523, p < 0.0005$).

**ANOVA Table 17**
Tests of Between-Subjects Effects
Dependent Variable: Cost Reduction

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Eta Squared</th>
<th>Noncent. Parameter</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>47.578</td>
<td>8</td>
<td>5.947</td>
<td>5.969</td>
<td>.000</td>
<td>.374</td>
<td>47.755</td>
<td>1.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>966.121</td>
<td>1</td>
<td>966.121</td>
<td>969.719</td>
<td>.000</td>
<td>.924</td>
<td>969.719</td>
<td>1.000</td>
</tr>
<tr>
<td>EVAL OUTCOME</td>
<td>20.968</td>
<td>2</td>
<td>10.484</td>
<td>10.523</td>
<td>.000</td>
<td>.208</td>
<td>21.046</td>
<td>.986</td>
</tr>
<tr>
<td>PERS ATTITUDE</td>
<td>5.003</td>
<td>2</td>
<td>2.505</td>
<td>2.514</td>
<td>.087</td>
<td>.059</td>
<td>5.028</td>
<td>.490</td>
</tr>
<tr>
<td>EVAL OUTCOME * PERS ATTITUDE</td>
<td>4.673</td>
<td>4</td>
<td>1.168</td>
<td>1.173</td>
<td>.329</td>
<td>.055</td>
<td>4.691</td>
<td>.352</td>
</tr>
<tr>
<td>Error</td>
<td>79.703</td>
<td>80</td>
<td>.996</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1488.000</td>
<td>89</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>127.281</td>
<td>88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Computed using alpha = .05  
b R Squared = .374 (Adjusted R Squared = .311)

Subsequent individual $t$-tests showed that responses to the cost reduction statement varied significantly (at the 0.01 level or better), and in the anticipated direction, according to personal attitude to outsourcing, and at the 0.0005 level according to cost outcomes of outsourcing. In other words, managers from public sector organisations who were less likely to claim that outsourcing produces cost decreases are also less likely to perceive cost reductions as a benefit of outsourcing *per se*.

Finally, correlation and factor analyses were run for the combination of twenty-five statements included in Question 13. The factor analysis was an attempt to search for a more parsimonious set of constructs underlying the data, and which would help to better explain which factors are important in outsourcing decision-making.

A correlation matrix was produced for the twenty-five items. Several items correlated poorly with other items, most notably the statement concerning government policy failed to correlate significantly (at the 0.05 level) with twenty-two of the other statements, but were nevertheless retained for the initial analysis. The KMO measure
for the analysis was 0.854, suggesting that factorability could be assumed. Using principal axis factoring, five factors with eigenvalues in excess of 1.000 were extracted, explaining over 61.2% of total variance. A rotated factor matrix was produced and several statements were found not to load on a single factor at the 0.5 level or better, including the statements about government policy, customer satisfaction, competitiveness, innovation, organisation development, restructuring, and labour relations.

Statements which failed to load at the required level were deleted and the factor analysis re-run. In the second analysis, only one statement failed to load on a factor at the 0.5 level and interestingly this was the statement concerning cost reduction. The statement was duly deleted, and a final factor analysis run in which all items loaded at the 0.5 level or better. This analysis possessed a KMO of 0.864, and four factors with eigenvalues in excess of 1 were extracted, explaining almost 64% of total variance.

A few items within the first and second factors were contaminated, loading on another factor by more than 0.3. However, the only contaminated factor, which needed to be excluded, was the market-testing item, which loaded at the 0.5 level on two quite diverse factors. Results concerning each of the final four factors appear in Table 5.19.

**Table 5.19 Benefits of outsourcing – Principal factors**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Factor mean</th>
<th>Cronbach alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service performance &amp; control factor</td>
<td>3.81</td>
<td>0.89</td>
</tr>
<tr>
<td>Managerial responsibility factor</td>
<td>4.23</td>
<td>0.72</td>
</tr>
<tr>
<td>Asset divestiture factor</td>
<td>2.98</td>
<td>0.68</td>
</tr>
<tr>
<td>Service complexity factor</td>
<td>2.88</td>
<td>0.67</td>
</tr>
</tbody>
</table>

The results in Table 5.19 display the four factors in order of importance, from most to least important in terms of variance explained. The first factor comprised the statement items (also in order of decreasing importance) relating to:

- performance measurement;
- benchmarking;
- clearer service standards;
- service provision control;
- financial controls;
- quality;
• accounting information; and
• cost overruns (i.e. contractors charging more than originally agreed).

As shown in Table 5.19, this first factor has been labelled a Service Performance and Control factor on the basis of the items comprising the factor. The mean for the combined measure shows that on the whole, the Service Performance and Control factor is generally viewed positively in outsourcing decision-making.

The second factor has been labelled a Managerial Responsibility factor as it consists of the items relating to:
• management load;
• business risk;
• corruption and payoffs; and,
• accountability.

The mean response (see Table 5.19) for this factor indicates that the Managerial Responsibility factor is generally viewed negatively in outsourcing decision-making.

The third and fourth factors are each comprised of only two items. Factor 3, labelled the Asset Divestiture factor, includes the items of physical asset reductions, and workforce reduction. The Asset Divestiture factor is generally viewed positively in outsourcing decision-making, given a mean response of 2.98 (i.e. ‘Agree/Strongly Agree). The fourth factor includes the specialist expertise, and complex and technical services statement items and is described as a Service Complexity factor. The Service Complexity factor is generally viewed most favourably of all factors with a mean response (2.88) between ‘Agree’ and ‘Strongly Agree’.

The preceding factor analysis contributes to a perceptual map of the individual and collective factors considered in deciding whether or not to outsource. The service complexity factor, asset divestiture factor, and service performance and control factor all contribute positively to the decision to outsource, while the managerial responsibility factor contributes to the decision to retain operations in-house.

The purpose of the factor analysis of responses to Question 13 was to provide economy and clarity in interpreting the chief concerns managers have in outsourcing decision making. As the main purpose of the research is to investigate the role of costs in outsourcing and considering that a direct cost-related factor was not evident based on
the analysis, the factors were not transformed into summated scales for further use.\textsuperscript{20} However, the reliability of the items factor analysed was assessed.

'Reliability and factor analysis are complimentary [sic]' (Coakes & Steed 1999, p.163). Having determined through factor analysis the conceptual distinctiveness of these four factors, an assessment of the reliability and internal consistency of each factor was deemed appropriate as further verification of the confidence that could be afforded the results. Cronbach's alpha coefficients for each factor were calculated and have been reported previously in Table 5.19.

All coefficients were above the accepted minimum of 0.6 for exploratory factor analysis, and are therefore deemed reliable. Additionally, given that alpha coefficients increase as the number of items comprising a measure increase, and that the number of items used in each factor was quite small, there is further support to suggest that the alpha coefficients are acceptable and the factor measures reliable. Sample output for factor analyses and reliability tests appears in Appendix 11.

5.8.2 Problems of outsourcing

Question 14 was an open-ended question providing survey participants with an opportunity to list what they considered to be the major problems or disadvantages of outsourcing. The question was designed to provide some cross-validation for the results obtained after analysing Question 13 (reported above). Responses to Question 14 ranged from statements to the effect that there are no problems associated with outsourcing (according to five respondents) to a listing of eight different problems reported by another respondent. On average, respondents listed two problems. Tests of the number of problems mentioned by respondents compared to a host of respondent and organisational variables revealed no significant differences.

Respondents' descriptions of problems were coded according to the categories detailed in Appendix 6. Analysis of these responses revealed the eight most frequently perceived problems of outsourcing (Table 5.20).

\textsuperscript{20} As previously mentioned, the 'cost reduction' item did not load on a single factor at the required level, although the 'cost overruns' statement did, but was the least significant component of the Service Performance and Control factors.
Table 5.20 Problems of outsourcing

<table>
<thead>
<tr>
<th>Problem</th>
<th>Survey Respondents</th>
<th>Depth Interview Frequency Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of service provision control</td>
<td>23.3%</td>
<td>1</td>
</tr>
<tr>
<td>Contract management &amp; monitoring difficulties</td>
<td>23.3%</td>
<td>1</td>
</tr>
<tr>
<td>Increased costs</td>
<td>21.7%</td>
<td>2</td>
</tr>
<tr>
<td>Loss of in-house expertise</td>
<td>19.2%</td>
<td>4</td>
</tr>
<tr>
<td>Difficulties in specifying service standards</td>
<td>16.7%</td>
<td></td>
</tr>
<tr>
<td>Contractors unavailable/lack of competition</td>
<td>13.3%</td>
<td></td>
</tr>
<tr>
<td>Reduced flexibility</td>
<td>10.8%</td>
<td>5</td>
</tr>
<tr>
<td>Decline in service quality</td>
<td>10.8%</td>
<td>3</td>
</tr>
</tbody>
</table>

Numerous other problems were listed in addition to those reported in Table 5.20, but each was cited by less than 8% of respondents. As Table 5.20 demonstrates, there was a high level of correspondence between the problems of outsourcing most frequently cited by surveyed managers, and those most frequently cited by the depth interview participants in the qualitative component of the research (Chapter 4). In both cases contractor-related performance and control issues were foremost, and the problem of increased costs the next most frequently cited problem. All other main factors mentioned by interviewees were also reflected in the survey results. Issues related to loss of in-house expertise, service standard setting, and lack of available contractors were also raised in the context of the case study organisation. This level of correspondence provides a high degree of cross validation of the data sets and results.

Further qualitative analysis of the survey responses revealed that several problems appeared to be peculiar to particular types of organisations. For example:

- 94% of respondents identifying lack of availability, or lack of competition among, contractors were from local governments. A further 10 respondents, all from local governments, mentioned other rural and regional issues, and 75% of respondents citing labour relations and local employment problems were from local governments;

- self-funded organisation respondents represented a disproportionately large number of responses to the effect that outsourcing leads to reductions of in-house expertise and causes loss of control over service provision. Loss of intellectual property was also a problem mentioned by most managers in the self-funded case organisation, and was the chief staffing and labour-related concern of managers participating in the depth interviews; and,
• while only 24.4% of responses to Question 14 were from managers of budget-funded organisations, they accounted for 57% of total respondents citing politics, government policy and legislation as a problem of outsourcing.

5.9 Emergent multi-theoretical model

The adjustments made to the revised multi-theoretical model from Chapter 4 (Figure 4.1), following the analysis of survey questionnaire data, appear in the emergent multi-theoretical model presented in Figure 5.7 below. The changes made subsequent to qualitative data analysis and reflected in this final iteration of the model are then briefly discussed in this chapter, and considered in more detail in Chapter 6.
Figure 5.7 EMERGENT model of variables in public sector outsourcing decision-making

DEcision
OUTSOURCE/IN-HOUSE PRODUCTION
(Market) (Hierarchy)

DEcision Evaluation
Ex-post - Cost and/or non-cost factors

Decision Making Framework
Political/bounded rational model of choice
External political influences
Human characteristics: Goal incongruence & opportunism

Decision Criteria & Factors
Financial, human, organisational & environmental contextual factors, including:

Costing Methods & MAS
More appropriate methods
- Avoidable costs
- Activity-based costs
- Production + transaction costs
- Long-term costs
- Accrual-based costs
- DCF/NPV analyses

Less appropriate methods
- Full costs (other than ABC)
- Allocated, non-avoidable & sunk costs
- Production costs only
- Short-term costs
- Cash-based costs (without DCF/NPV)

Key Factors
- Service performance & control
- Managerial responsibility
- Asset divestiture
- Service complexity

Market & Transactional characteristics
Favourable to outsourcing
- Competitive market
- Low site specificity
- Service - non-core

Unfavourable to outsourcing
- Non-competitive market
- High site specificity
- Service - core

Organisational characteristics
Level of government
Location
The principal changes reflected in the emergent model (Figure 5.7), compared to the previous iteration (Figure 4.1), include the alteration of key factors to reflect those revealed by the factor analysis. Consistent with the results of that analysis, cost factors occupy a less significant role in outsourcing decision-making. The quantitative analyses confirmed the posited divide between more and less appropriate costing methods, which are retained in the emergent model.

While neither organisation size nor organisation type were strongly implicated in the role afforded costs in outsourcing decision-making (and have been deleted from the model), both level of government and location of public sector organisations were found to impact not only upon costs and costing methods in the decision process, but also upon some of the market and transactional factors, such as site specificity and competitiveness of markets. These transactional and organisational factors are now linked in the emergent model.

Many market and transactional factors have been removed from the model. The influence of these factors was found to be either inconclusive or not as dichotomous (i.e. favourable or unfavourable to outsourcing) as TCE would suggest. The retained market and transactional factors are therefore limited to those that are distinctively dichotomous. However, several of the deleted factors are retained as part of the statistically derived meta-factors, such as ‘Service complexity’, which appear in the ‘Key factors’ component of the model.

Finally, the ‘Decision evaluation’ criteria have been modified to include both cost and non-cost factors consistent with the results of the quantitative research reported in this chapter, and which demonstrated that many organisations evaluate outsourcing decisions on the basis of non-financial criteria.

Overall, the emergent model is more simplified and streamlined than prior iterations and the outsourcing decision less dependant on a complex range of market and transactional factors than TCE suggests.
The quantitative and qualitative survey results of this chapter, together with the qualitative results reported in Chapter 4, are related to the research propositions and to the existing literature in Chapter 6 which more fully discusses the findings and identifies the outcomes and contributions of this research.
CHAPTER 6: CONTRIBUTIONS TO BODY OF KNOWLEDGE & CONCLUSION

6.1 Introduction

Although the importance of costs and cost savings in public sector outsourcing decisions is argued in government policies, promulgated in government guidance materials, and reflected in the economics-based theoretical literature, popular press and accounting and outsourcing textbooks, the arguments are prescriptive and the evidence anecdotal. The literature fails to address the deeply contextual nature of the real-world practice of making outsourcing decisions, and the role afforded costs and costing information in the decision process, and overlooks the distinctiveness of the public sector. The literature reviewed in Chapter 2 established the existence of a number of political and theoretical perspectives and presented an *a priori* model of the role of costs in outsourcing decision making based upon those perspectives.

The analysis and findings of the qualitative components of the research presented in Chapter 4 were derived from studies of several, selected public sector organisations and illustrate that current models and theories of outsourcing, particularly when applied to the public sector, inadequately describe and explicate the decision process and the role of costs within that process. These qualitative results informed and assisted in the development of the survey questionnaire for the quantitative aspect of the research, by modifying the theoretical model guiding the research, and operationalising various constructs. Data analysis and results for the quantitative research were presented in Chapter 5, further establishing that current models and theories of outsourcing decision-making are inconsistent with practices adopted by Australian public sector organisations and misstate the role of cost information and the cost savings objective.

Current models and theories lose credibility either when applied to the public sector context, the Australian context, or to the actual costing practices and decision methodologies used in these organisations. The structure of outsourcing decisions in these organisations and how and why costs are or are not used has not been adequately addressed in the extant academic literature.
Given that existing theories of outsourcing offer inadequate explanations of the objectives and processes of outsourcing decision-making, and since public sector outsourcing decisions have implications not only for how services are provided to the populace, but also for how much public money is spent in providing those services, it was imperative to ask the question:

**How and why are costs and costing information used in making outsourcing decisions in Australian public sector organisations?**

Moreover, there has been a scarcity of research which considers 'power relationships and political bargaining processes, studies of which would enhance our understanding of systems implementation and use' in management accounting research and especially so in that which applies to the public sector (Brignall & Modell 2000, p.282). The research presented in this thesis aimed to directly investigate the complex interrelationships between organisational objectives, power and politics, management accounting systems (MAS) and costing systems, and the use of outsourcing.

An *a priori* model of the issue was presented in Chapter 2 (*Figure 2.8*) and following qualitative case study and depth interview research (reported in Chapter 4) a modified and revised model, *Figure 4.1* was derived. The model was subjected to further, predominantly quantitative testing (see Chapter 5), and a final emergent model presented (*Figure 5.7*) and which is reproduced as *Figure 6.1* on the following page.
The numbers used above in reference to each text box within the model relate to the research propositions and associated hypotheses tested to confirm the model.

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Each aspect of the initial model, derived from the literature and modified by the qualitative research, was tested quantitatively to derive a post-hoc model (Figure 6.1) representing the factors in the making outsourcing decisions in Australian public sector organisations.

In sum, the research provided the means to develop, build, and refine theory to propose a holistic model (Figure 6.1) of outsourcing decision-making within the Australian public sector environment. This holistic approach to model development and modification was a departure from the usual piecemeal approaches of prior research which has sought to test a small set of variables, from a single, usually economic theoretical position, in more isolated contexts.

The current chapter presents the findings related to each of the research propositions embodied within the model based on the qualitative and quantitative research. The findings relating to the propositions and associated model provide the basis for reporting research outcomes and reaching specific conclusions about the role of costs in outsourcing decisions in Australian public sector organisations. These conclusions provide the foundation for discussing the significant implications of the research in terms of theory, practice and policy. In closing, Chapter 6 reviews the limitations of the research and makes some suggestions for future research in the topic area.

6.2 Findings concerning research propositions

The review of literature in Chapter 2 identified key aspects of outsourcing decision making and the role of costs in this decision making. Eight propositions, derived from the primary and support research questions and developed through a review of the literature underpinned the research that was described in the succeeding chapters. The propositions anticipated the answers to the research questions and were part of the multi-theoretical model constructed to focus the research.

The detailed discussion of each proposition appears in order consistent with the analysis and presentation of results in Chapters 4 and 5. This sequence better facilitates the discussion and interpretation of results and findings, and the flow of ideas, than a simple numerical sequence based on proposition number. The chosen sequence instead begins by focusing broadly on the outsourcing decision and the framework for decision-making, then on the human, organisational and transactional factors impacting that
outsourcing decision making, and then on the all-important issue of the role of costs, and finally on non-cost factors. However, the following table (Table 6.1) conveniently summarises the chief contributions of the research in numerical order of research propositions.
Table 6.1 Research contributions

<table>
<thead>
<tr>
<th>Proposition</th>
<th>Extant literature</th>
<th>Contribution of the current research</th>
</tr>
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<tbody>
<tr>
<td>1. Cost savings are the most important objective of outsourcing by Australian public sector organisations</td>
<td>Most overseas research supports the proposition (Ferris 1986; Ferris &amp; Graddy 1988; Christie 1991; Hirsch 1995b), although some does not (Ferris &amp; Graddy 1986). Australian literature supports the proposition but is largely prescriptive &amp; anecdotal, with some exceptions (Domberger, Hensher &amp; Wedde 1993). Other Australian research literature does not support the proposition (Botman 1995; CTC Research Team 1995a; East &amp; Partners 2001).</td>
<td>While cost savings are an important objective, other objectives are more important. In particular, staffing &amp; expertise, service performance &amp; control, service complexity, &amp; asset divestiture were individually or collectively more important objectives.</td>
</tr>
<tr>
<td>2. Outsourcing decisions of Australian public sector organisations reflect a bounded rationality model of choice, contained by public sector political imperatives</td>
<td>Economics-based TCE research supports the former component of the proposition (Shelanski &amp; Klein 1995), although the strategic management research is more equivocal (see, Eisenhardt &amp; Zbaracki 1992; Dean &amp; Sharfman 1993b; 1996). Decision models have not been previously researched in the Australian public sector outsourcing research literature. The latter component of the proposition is supported by overseas public sector outsourcing research (Ferris &amp; Graddy 1988; Hirsch 1995b) &amp; limited Australian research (Domberger, Hall &amp; Jeffries 1995).</td>
<td>Consistent with the findings of the strategic management literature, but not the TCE research, a political model of choice best described outsourcing decision-making in Australian public sector organisations. The latter component of the proposition was strongly supported, particularly in terms of the influence on organisational decision making of externally imposed government requirements for organisations to outsource. The research thus provides an improved understanding of the strength of the political mandate in shaping the decision process.</td>
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<tr>
<td>3. Australian public sector organisations choose to outsource for services when the purchase &amp; transaction costs associated with external supply are less than the costs of continued in-house provision</td>
<td>The proposition is supported by the TCE research in organisations in general (see Shelanski &amp; Klein 1995) &amp; applied to the public sector (Ferris &amp; Graddy 1991). There is limited Australian evidence (Albin 1992) which does not support the proposition.</td>
<td>Australian public sector organisations outsource for reasons other than or unrelated to cost considerations. Where costs are important, the cost of continued in-house provision cannot be accurately identified, &amp; the transaction costs associated with external supply are either ignored or unknown.</td>
</tr>
<tr>
<td>4A. The outsourcing decisions of Australian public sector organisations are influenced by human factors of opportunism &amp; goal congruence</td>
<td>TCE theory supports the proposition, as does the limited body of research literature concerning these human factors (see Shelanski &amp; Klein 1995). However, while the scant research is generally supportive of TCE hypotheses, causal explanations are questionable (see Masten, Moohan &amp; Snyder 1991, Moran &amp; Ghoshal 1996).</td>
<td>Opportunism &amp; goal incongruence have no significant influence on Australian public sector organisations’ decisions to outsource.</td>
</tr>
<tr>
<td>4B. The outsourcing decisions of Australian public sector organisations are influenced by transactional factors of asset specificity, performance ambiguity &amp; complexity, uncertainty, &amp; the competitiveness of markets</td>
<td>Some authorities (eg. Shelanski &amp; Klein 1995) contend that there is overwhelming empirical support for the predictions of TCE embodied within the proposition. Others suggest that the existing research evidence is more equivocal (Moran &amp; Ghoshal 1996), or that only certain transactional factors are relevant or relevant only under particular conditions (Ferris &amp; Graddy 1986; Pouder 1996).</td>
<td>Some transactional factors, such as site asset specificity &amp; the competitiveness of markets influence outsourcing decisions of Australian public sector organisations in the manner predicted by TCE. Other factors such as physical &amp; human asset specificity, &amp; uncertainty also influence outsourcing decisions, but not in the manner or direction predicted by TCE.</td>
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<td><strong>5A. The role of costs &amp; costing information for outsourcing decisions in Australian public sector organisations is influenced by organisation size.</strong></td>
<td>The largely private sector-oriented contingency theory research supports the proposition (see Reeve 1993; Moores &amp; Booth 1994).</td>
<td>Organisation size has little influence on the role of costs &amp; costing information in the outsourcing decisions of Australian public sector organisations.</td>
</tr>
<tr>
<td><strong>5B. The role of costs &amp; costing information for outsourcing decisions in Australian public sector organisations is influenced by organisation type, level of government, &amp; organisation location.</strong></td>
<td>Contingency theory research generally supports the proposition (see Reeve 1993; Moores &amp; Booth 1994). The outsourcing research evidence is very limited &amp; while some supports the proposition (Domberger, Hensher &amp; Wedde 1993) some does not (Flannery 1998).</td>
<td>Organisation type has little influence on the role of costs &amp; costing information in the outsourcing decisions of Australian public sector organisations. However, both level of government &amp; organisation location have significant effects on outsourcing by Australian public sector organisation &amp; on the role &amp; use of costs in outsourcing decisions.</td>
</tr>
<tr>
<td><strong>6. Costing methods used to determine in-house costs for use in making outsourcing decisions in Australian public sector organisations are inappropriate for the purpose.</strong></td>
<td>The research evidence relating to Australian government costing guidance used for decision making &amp; for outsourcing decision making in the public sector supports the proposition (CTC Research Team 1995b; Johnstone &amp; Gaffkin 1996; Johnstone 1997, 1999; Fitcher 2000), although there is no known existing empirical research directly related to the proposition.</td>
<td>Some Australian public sector organisations do not cost outsourcing decisions. Of those that cost in-house service provision for comparison with external bids, the costing methods used are inappropriate, mixed &amp; inconsistent, &amp; vary within &amp; across organisations.</td>
</tr>
<tr>
<td><strong>7. Australian public sector organisations use cost information to assess if cost savings have been made, consistent with the cost minimisation objective of outsourcing.</strong></td>
<td>There is a dearth of Australian &amp; international research directly related to the proposition. The limited research evidence (Smith, J. M. 1990; PSRC 1996) is supportive of the proposition.</td>
<td>Some organisations do not produce any cost or non-cost information for evaluating outsourcing decisions. Of the organisations that make ex post evaluations of outsourcing decisions, mostly the evaluation is based on non-cost information.</td>
</tr>
<tr>
<td><strong>8. Non-financial factors, such as improved service quality, greater flexibility, &amp; access to better technology, are considered in making outsourcing decisions in Australian public sector organisations.</strong></td>
<td>Overseas &amp; Australian research on public sector outsourcing supports the proposition (eg. Ferris &amp; Graddy 1988; Christie 1991; Domberger, Hensher &amp; Wedde 1993; Domberger, Hall &amp; Jeffries 1995; Hirsch 1995b; Flannery 1998).</td>
<td>Australian public sector organisations consider a broad range of non-financial factors in outsourcing decision making &amp; which are individually or collectively more important than cost &amp; financial factors.</td>
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</table>
6.2.1 Research proposition 1: Findings

Cost savings are the most important objective of outsourcing by Australian public sector organisations.

The results of both the qualitative and quantitative research supported Proposition 1, although not in the manner or to the extent suggested by the literature reviewed in Chapter 2. In that review of literature it was established that government outsourcing policy is founded upon the cost savings/cost reduction objective and further, that transaction cost economics (TCE) predicts the market (outsourcing) will be used when it can produce the most cost economical outcome.

The qualitative case study research highlighted that while managers perceived the cost savings objective to be the primary reason for outsourcing, in practice this objective was neither dominant nor actively pursued. Additionally, only a small proportion of managers who participated in the qualitative depth interviews claimed cost savings to be the objective or one of the objectives of outsourcing by their organisations. This claim about the role of the cost savings objective was reinforced by the lack of rigour applied by organisations in assessing if cost savings had been made, ex post.

The analysis of quantitative data from the survey questionnaire affirmed the qualitative results. While cost reduction was the modal response to the question of why organisations outsource, around 20% of survey respondents provided this reason. Furthermore, while these managers claimed cost and financial factors to be the single most important consideration in outsourcing decision-making, this factor was weighted as accounting for only an average of 37% of managers’ outsourcing decisions.

These results are at variance with USA and UK studies (Ferris 1986; Ferris & Graddy 1988; Christie 1991; Hirsch 1995b) which found the while several factors were important, cost minimisation and cost-related factors were most important. Similarly, Domberger, Henscher and Wedde’s (1993) Australian survey study found that cost efficiency was the primary reason for outsourcing in local governments and government departments, although lack of resources was the chief reason for Government Trading Enterprises (GTEs) to outsource.
More consistent with the findings of the current research were those of a large-scale study of Australian local governments (Botsman 1995) which noted that only 22-35% of respondents cited cost reduction as an advantage of outsourcing. That the cost efficiency objective does not predominate was also affirmed in later Domberger studies (CTC Research Team 1995a; Domberger, Hall & Jeffries 1995), which found managers perceived effectiveness in ensuring service delivery more important than cost reductions. The most recent research, on IT outsourcing by Australian Federal government agencies \((n = 128)\) (East & Partners 2001), found that ‘value for money’ was ranked by public sector managers as least important, of 30 performance factors, relating to contractors and contractor relationships.

Decision theorists note that ‘the goals of the decision maker can affect the information used and sought, and, conversely, ... the information available to the decision maker may affect his or her goals’ (Slocum 1982, p. 289). Therefore, there are at least two reasons why the cost savings objective is not pursued to the extent which government policy would suggest. The first and most obvious reason is that other goals predominate in making outsourcing decisions (as discussed in section 6.2.9). If public sector organisations are regarded as extensions of parent authorities (the Executive and Parliamentary arms of government), this suggests a level of goal incongruence exists. While these higher order authorities appear to have based outsourcing policy and mandates on the cost savings rationale, and thus the original decision to encourage public sector organisations to outsource was driven by cost considerations, at the operational level other attributes relevant to the decision emerge and either replace or overwhelm cost concerns.

A rival explanation for the relative unimportance of cost considerations at the operational level may be that since reliable cost information is not available (see section 6.2.5), outsourcing decisions cannot be based solely or predominantly on a cost criterion. Why this information is unavailable is less readily apparent. Some of the research data (Chapter 4) indicated that managers assume cost savings to be an inevitable outcome of outsourcing and, therefore, cost data may be perceived as unnecessary. Other results (see section 6.2.5) demonstrate the inadequacy of public sector cost and management accounting systems; providing another reason for cost data being unavailable. However, given the political nature of outsourcing decisions there may instead be unintended political incentives for managers to source which
undermine the cost savings rationale. For example, it may be easier to request a budgetary increase for a department or agency if the costs that entity must meet are externally generated and determined by competitive tendering. Such political influences and behaviours are discussed in the next section.

6.2.2 Research proposition 2: Findings

Outsourcing decisions in Australian public sector organisations reflect a bounded rationality model of choice, contained by public sector political imperatives.

The bounded rationality component of Proposition 1 was not supported, although the second component of the proposition, that choice is contained by public sector political imperatives, was supported. Because the proposition concerned specific behavioural aspects of decision making, the necessary depth of investigation required could only be satisfactorily obtained using qualitative methods (the case study and series of depth interviews). Corroborative evidence was also derived from the survey questionnaire.

Derived principally from the TCE literature, the proposition maintains that organisations will generally adopt a structured and logical, although imperfect and satisficing approach to decision making. In addition to this TCE contention, the public sector literature encourages the notion that decision making will be further bounded or limited by political imperatives that are specific to the public sector. In other words, government policy and directives will also act to constrain choice.

Bounded rationality

The use of the bounded rationality model in making outsourcing decisions was not supported by the analysis of case study and depth interview data. The dominant pro-environmental coalition of the Foundation case organisation, the personal party political views of the organisation's managers, and the degree of conflict and compromise noted within the organisation accorded instead with a political model of choice.

The results of the depth interviews with managers of fifteen other public sector organisations also provided support for the political model. Most interviewees stressed how power, politics and bargaining were used within their organisations in making outsourcing decisions, and provided illustrations of the selective and variable nature of information searches and decision criteria. However, some organisations adopted a rational approach bounded by political context.
The quantitative components of the survey questionnaire, reported in Chapter 5, reinforced the findings of the qualitative work. Some survey respondents reported that outsourcing decisions within their organisations were strongly, strategically and objectives focussed, and described the ways in which the formal procedures for making these decisions had produced improvements in information search and scanning techniques, as well as in costing systems and other decision support systems. These descriptions accorded with a bounded rational decision model. However, this segment was in the minority and the majority of respondents described how outsourcing decisions in their organisations were the products of intra-organisational politics.

**Public sector political imperatives**

While the political, rather than the bounded rationality model best fitted the case organisation’s internal mode of decision making, there was support garnered for the second aspect of Research Proposition 2 – that outsourcing would be contained by public sector political imperatives emanating from outside the organisation. The effect of external political pressures was felt by some of the case organisation’s managers and reflected in their desires to ‘keep the minister happy’ and demonstrate ‘efficiency to the minister’. Analysis of qualitative interview data also supported the second aspect of the proposition. Several managers stressed that outsourcing often occurred only because of government imposed or legislative requirements to do so; a point also made by Finlay and King (1999) in their examination of public sector outsourcing in the UK.

Many survey respondents described how outsourcing had been forced upon organisations by government policy. Consequently, outsourcing decisions became ‘knee jerk reactions to government policy’ or necessary in order to comply with legislation. Sixteen (14%) surveyed managers specified a sole objective for making outsourcing decisions, which was frequently stated to be the need to satisfy government outsourcing policy. Legislative or government directives were also the modal ‘other’ factor in outsourcing decision-making, and managers of large organisations were significantly more likely than those of small organisations to agree that outsourcing was necessary to satisfy government policy. Managers from budget-funded organisations were also more likely than those from other organisations to cite politics, government policy and legislation as problem areas in outsourcing.
Analysis of the survey questionnaire supported the findings of the qualitative work, evidencing that outsourcing decisions in Australian public sector organisations are either political or rational, within political bounds. De Looff (1996, 1997) reached similar conclusions concerning the applicability of the political model of decision making in his studies of information systems (IS) outsourcing.

The results confirm Research Proposition 2, that outsourcing decisions of Australian public sector organisations are contained by public sector political imperatives. Strategic decision-making research (see for example, Frederickson 1984; Miller 1987; Dean & Sharfman 1993a) suggests that increased environmental turbulence, increased complexity and the existence of external control serves to push organisations towards less rational approaches to decision making. This strategy literature (see for example, Mintzberg & Waters 1985) also suggests that sometimes organisations and their managers cannot pursue their own strategies because strategy is instead, imposed upon them by external individuals or groups. This imposition of strategy was reflected in the outsourcing study of Hodge (1999, p. 455), who concluded that 'privatization is as much a political and social reform mechanism as it is an economic one'. Ferris (1986) and Ferris and Graddy (1986) also found other external political variables significant in public sector outsourcing decision making, including the impact of special interest groups, community political sentiments, and the political power of public sector employees. Such external pressures and externally imposed strategies may also have implications for goal incongruence.

6.2.3 Research proposition 4A: Findings

The outsourcing decisions of Australian public sector organisations are influenced by human factors of opportunism and goal congruence.

TCE suggests that outsourcing may produce cost economising outcomes when there is goal incongruence (within the organisation) and when opportunities for opportunistic behaviour (by contractors) are low. The human behavioural flavour of this proposition was best investigated and addressed on the basis of the qualitative research. The results of data analysis failed to support the proposition.

Analysis of individual managers’ goals and those of other managers within the case and depth interview organisations suggested the existence of goal incongruence. Contrary to TCE, local government interviewees, who appeared to have the least goal
incongruence, were employed in organisations that generally engaged in outsourcing to a greater extent than the other main types of public sector organisations. Similarly, little support was found for the TCE contention that outsourcing is more likely when opportunities for opportunistic behaviour are low. Several case study and depth interview managers pointed to the suspected opportunistic actions of contractors in instituting price hikes after contracts were secured. Nevertheless, perceptions of opportunism did not appear to dissuade these organisations from outsourcing.

The qualitative research, particularly in the case organisation, also highlighted the opportunistic actions of managers in terms of data manipulation. Agency theory and TCE posit that managers and external contractors act self-interestedly or opportunistically. Spicer and Ballew (1983, p. 80) suggest that this ‘opportunism may involve strategic manipulation and distortion of information and the misrepresentation of intentions and outcomes’. The manipulation of data by management or others to produce a desired result is not a new concept in accounting (see, for example, Merchant 1990). Since government policy promotes the pursuit of cost savings through outsourcing, it is not unlikely that some managers will manipulate data to produce a cost savings result. Further, when in-house teams are afforded the opportunity to bid against external suppliers there may be incentives to under-cost in-house provision. Under-costing is even more likely if in-house staff face redundancy should the outsourcing option be chosen.

While TCE incorporates the notion of opportunism, it does not explain how the existence of opportunism can result in this type of data manipulation. Such data manipulation, through opportunistic actions and behaviours, can directly undermine the achievement of the cost economising outcome the theory purports to explain.

There are also links between the bounded rationality decision model aspect of Proposition 2 and the goal congruence component of Proposition 4A, which are explored in the following discussion.
**Bounded rationality & goal incongruence**

Eisenhardt and Zbaracki (1992, p. 27) criticise the bounded rationality tenet of TCE:

> most scholars accept the central ideas of the political perspective ... these observations fit both the published research and most people’s day-to-day experience within organizations. And these central ideas form a much more coherent theory than do those of bounded rationality.

Later empirical work by Dean & Sharfman (1993b, 1996) has suggested that in strategic decision making, internal organisational political behaviour and procedural (bounded) rationality can and generally do coexist and represent two distinct and independent dimensions of decision making.

Viewed in this light, the research findings concerning both Propositions 2 and 4A achieve a greater measure of coherence. For example, in many ways the TCE tenets of bounded rationality in outsourcing decision making (expressed in Research Proposition 2) and goal incongruence (expressed in Research Proposition 4A), appear contradictory based on the case and interview research conducted. Manager participants were generally of the opinion that goal incongruence within their organisations produced tension, conflict, uses and abuses of power, empire building, coalition formation, and bargaining within their organisations and in decision making, consistent with a political model of choice. In other words, rather than the TCE view that a bounded rational decision model is used and that goal incongruence promotes outsourcing, the existence of goal incongruence instead appeared to cause or promote the use of political power in influencing outsourcing decisions. Further, these politically determined outsourcing choices appeared to have little to do with perceptions of whether internal organisation managers or external contractors do or do not behave opportunistically. Consequently, the findings of qualitative data analysis provide little, if any support, for the TCE elements of Propositions 2 and 4A.

Findings related to Research Proposition 1 also impact upon the findings for Proposition 4A. The results relating to Proposition 1, previously discussed in section 6.2.1, emphasise that public sector organisations are not, in practice, actively pursuing the cost savings objectives that is assumed by TCE and embodied within government policy. Therefore, applying agency theory, there is *prima facie* some level of goal incongruence, such that the actions of managers (as agents) are not consistent with the wishes of governments (as principals). By outsourcing for reasons other than or
unrelated to a cost economising objective, managers may be engaging in dysfunctional behaviours.

The findings presented in sections 6.2.1 to 6.2.3 are consistent with those of Hirsch (1995b), who found that while cost and efficiency concerns were the most important considerations in making outsourcing decision in US local governments, institutional factors including accountability and political factors were also important. This outcome is also consistent with the work of Ferris and Graddy (1988). The Australian study of Domberger, Hall and Jeffries (1995) also reported that government and budget directives were highly rated reasons for why public sector organisations made outsourcing decisions.

6.2.4 Research proposition 4B: Findings

The outsourcing decisions of Australian public sector organisations are influenced by transactional factors of asset specificity, performance ambiguity and complexity, uncertainty, and the competitiveness of markets.

This proposition was supported, although not necessarily in the direction or manner proffered by TCE. TCE holds that there are particular characteristics of markets, transactions and contracts that produce conditions under which outsourcing may be preferable in achieving cost economising outcomes. Shelanski and Klein (1995, p. 352) note the ‘studies that examine the make-or-buy decision ... overwhelmingly confirm transaction cost economic predictions’. In brief, the TCE predictions, from which a set of hypotheses were derived, are that outsourcing can minimise costs when:

- asset specificity (including physical, human and site asset specificity) is low;
- services are standardised and uncomplicated - performance ambiguity is low and complexity is low;
- environmental uncertainty is low; and,
- the market is competitive (a variable sometimes termed ‘large numbers’).

Physical asset specificity

H 4B.1 Australian public sector organisations prefer to outsource when asset specificity is low.

Overall, the results failed to support H 4B.1. Results concerning physical asset specificity were mixed and inconclusive. Results concerning human asset specificity were in a direction contrary to that hypothesised, although those for site asset specificity confirmed the hypothesis.
The diversity of opinion concerning the physical asset specificity aspect of TCE did not assist in explaining outsourcing decision-making behaviour in the case organisation, although the site and human asset specificity predictions of TCE appeared to be relevant. From the series of depth interviews only the responses of local government managers aligned with TCE physical asset specificity predictions, while those of self-funded and budget-funded organisation managers did not.

Physical asset specificity could not be examined directly in the survey questionnaire due to the difficulties associated with operationalising the variable, as noted in Chapter 3. Instead, the impact of physical assets was tested indirectly in the survey through an assessment of the likelihood of managers considering the irrelevant sunk costs of existing in-house assets. Results showed that managers generally found outsourcing to be less preferable to continued in-house production when organisations possessed specialised assets, and small organisations were significantly less likely than large organisations to outsource under such conditions. While these results do not provide evidence for concluding that the TCE position on physical asset specificity is erroneous, they do show that managers behave as though sunk costs are relevant.

Research has shown that managers may encounter difficulties in distinguishing between the relevant effects of asset specificity concerning the 'buy' (outsource) alternative and the irrelevant effects of sunk costs of assets associated with the 'make' (retain in-house) alternative (Roodhoft & Warlop 1999). The conclusions of such research are that managers consider both. Consequently, it might often be difficult to determine what part of a manager's perceptions concerning physical assets relate to the TCE asset specificity variable and what part to sunk costs.¹ In the case of the current research, particularly the survey questionnaire, it was clear that (irrelevant) sunk costs were considered in making outsourcing decisions.

**Human asset specificity**

It can be concluded from the analysis of the depth interviews that managers rate tasks requiring high levels of human expertise as the most likely of all tasks and services to be outsourced. The human asset specificity variable was also directly addressed in the survey questionnaire. An analysis of the most frequently outsourced service types cited

¹ Although it is possible to make such a determination in experimental scenarios where variables can be highly controlled.
by survey managers also revealed that outsourcing for tasks requiring specialist technical and professional skills was common, and that managers generally found outsourcing to be preferable to in-house provision of such services. Survey respondents were also of the opinion that outsourcing provides access to better specialist expertise. The TCE position that outsourcing is preferable under conditions of low human asset specificity was therefore not supported. This finding is consistent with Finlay and King’s (1999, p. 109) assertion that TCE ‘fails to take account of the special features of knowledge-intensive goods and services’, and with Chackerian and Imershein (1984, cited in Ferris and Graddy 1986) who found that in contracting out human services, higher levels of asset specificity implied greater levels of outsourcing.

Site asset specificity
In the case organisation site specificity was demonstrated to affect outsourcing decisions in the manner suggested by TCE. Site specificity predictions were also borne out by two regional self-funded organisations that were part of the depth interview qualitative research phase. For these organisations, site specificity resulted in escalations in the cost to outsource compared to the cost of retaining services in-house, and was essentially a function of geography – rural, regional or isolated work sites can be expensive for contractors to reach or access and this inflates the cost of outsourcing. There was also some evidence to indicate that geographic isolation and site specificity also limited the availability of contractors. The 15 non-outsourcing organisations who responded to the survey questionnaire were generally from isolated locations and several of these, from northern South Australian and eastern parts of Western Australia noted that outsourcing was not possible because of this isolation.

Performance ambiguity and complexity

H 4B.2 Australian public sector organisations prefer to outsource when performance ambiguity and complexity are low.

Results failed to confirm the hypothesis. Service complexity and performance ambiguity has a mixed impact. Managers of the case study organisation regarded complex and ambiguous tasks as less likely candidates for outsourcing. Respondent managers from other public sector organisations confirmed this finding. However, somewhat of a contradiction was the observation that these managers outsourced, more than any other service type, tasks requiring specialist and technical expertise. By their very nature, these tasks and services likely entail high levels of performance ambiguity
and task complexity. However, the next most frequently outsourced tasks in these organisations were those for basic and routine services.

Survey respondents also frequently outsourced these two types of services – basic/routine and specialist/technical tasks, and were agreeable to the notion of outsourcing tasks entailing performance ambiguity and complexity. Further, small organisations were significantly more likely to outsource for complex and ambiguous tasks and service.

**Environmental uncertainty**

The TCE position was expressed in the following hypothesis:

**H 4B.3** **Australian public sector organisations prefer to outsource when uncertainty is low.**

The hypothesis was rejected. In the case study, all managers agreed that with the introduction of environmental uncertainty, outsourcing became a less attractive option. However, survey questionnaire respondents were more inclined to outsource operations under conditions of uncertainty, than to retain them in-house. Further, managers of Federal organisations were significantly more likely to do so than managers of local government organisations.

This finding is not only contrary to TCE, but also with the research results of Gilley (1997), who found that environmental dynamism had a negative effect on the extent to which firms outsource. However, Shelanski and Klein (1995, p. 339) note that in the absence of asset specificity, 'TCE does not predict uncertainty would itself lead to hierarchical governance' (insourcing).

The results of the current research regarding the association between the propensity to outsource and the level of physical asset specificity and environmental uncertainty were mixed and inconclusive. Taken jointly, the significant positive correlation between the preference to outsource under conditions of high uncertainty and human asset specificity, noted in the analysis of the survey (Chapter 5), is in conflict with TCE theory. Individually, the results for physical asset specificity and uncertainty do, however, accord with those of studies of information systems outsourcing (Loh and Venkatraman 1992; Aubert, Rivard & Patry 1993, cited in De Looff 1997).
Competitiveness of markets

The TCE position is that competition among contractors decreases costs. The following hypothesis was accepted:

**H 4B.4 Australian public sector organisations prefer to outsource when markets are competitive.**

In the case organisation, limitations on the availability of and competition among contractors were a function of the organisation's regional location and the isolation and specificity of its work sites. Managers participating in the depth interviews, whether from regional or metropolitan organisations, confirmed that the choice, availability and cost of contractors were less favourable in rural and regional areas. Survey respondents indicated that outsourcing was preferable to in-house production when there were a large number of potential contractors from which to choose. Ninety four percent of all survey respondents identifying lack of availability or competition among contractors were from local government organisations. The regional and rural locations or site specificity of these local governments probably explains much of their concerns about contractor availability and competition. These findings accord with the key contestability aspect of Vining and Weimer's (1990) theoretical framework of public sector outsourcing and Ferris and Graddy's (1986) study of choice between internal and external production in the US public sector.

In summary, the results supported the proposition that the outsourcing decisions of Australian public sector organisations are influenced by transactional factors of asset specificity, performance ambiguity and complexity, uncertainty, and the competitiveness of markets, although not necessarily in the manner or direction predicted by TCE. Both Ferris and Graddy (1986) and Pouder (1996) similarly found that some of these TCE variables affected outsourcing decisions in the manner predicted by the theory, while some did not.

**6.2.5 Research proposition 3: Findings**

*Australian public sector organisations choose to outsource for services when the purchase and transaction costs associated with external supply are less than the costs of continued in-house provision.*

Proposition 3 was not supported by the qualitative or quantitative research results, and this is consistent with the lack of support for the underlying aspects of TCE which were previously addressed in reference to Propositions 4A and 4B.
TCE theorists (eg. Williamson 1975, 1985; Walker & Weber 1984) suggest that organisations will choose either to produce in-house or to outsource by using the 'market' alternative, depending on which option is most cost-efficient in minimising both production and transaction costs. The transaction costs associated with contracting can be divided into those relating to the costs of searching for appropriate contractors through which to outsource, making the transition from in-house provision to outsourced provision, and monitoring the performance of contractors.

In the case organisation, cost estimates were sometimes not prepared at all prior to outsourcing, and the organisation did not consider the transaction costs of contracting with outside suppliers. Of the fifteen public sector organisations and managers studied via the depth interviews, eight (53%) did not make cost comparisons prior to outsourcing. Of the organisations which did make cost comparisons, transaction costs relating to search and transition activities were rarely considered, and monitoring costs considered only in a few.

Findings concerning costing methods from the quantitative survey research are discussed later in this chapter, and while most organisations claimed to cost their outsourcing decisions, the in-house cost estimates used are generally unreliable because of the inappropriate costing methods applied in developing them. In respect of transaction costs, 14.7% of surveyed organisations rarely or never considered transaction costs and others only infrequently did so.

These results do not lend support to the principal contention expressed in Research Proposition 3. Rather, the conclusion is that Australian public sector organisations often choose to outsource for reasons unrelated to the purchase and transaction costs associated with doing so, and even when cost information is used:

- inappropriate costing methods are often applied in determining in-house production costs; and,

- the transaction costs associated with external supply are never or only infrequently considered by many organisations.
These results are supported by ANAO (1999, p. 4) findings that Australian public sector organisations involved in outsourcing need to improve their costing practices, in particular to ensure that contract administration costs (transaction costs) are added to bid prices to establish the ‘full cost of the contract’.

6.2.6 Research proposition 6: Findings

Costing methods used to determine in-house costs for use in making outsourcing decisions in Australian public sector organisations are inappropriate for the purpose.

The results of the qualitative and quantitative investigations strongly supported this proposition. Proposition 6 was derived from an examination of the government costing guidance literature which tends to prescribe the use of full costs, allocation of non-avoidable costs, and inclusion of sunk costs, and promotes a focus on short-term costs in making outsourcing decisions.

Analysis of the survey data showed that 38% of organisations did not use a prescribed method for costing outsourcing decisions. Presumably, if there is no internal or external policy concerning the costing method to be employed, methods may vary over time and between decisions/contracts. This may indicate the lack of consistent approaches to costing for outsourcing decisions both within and across organisations. In approximately 36% of organisations, management of the organisation determines the costing methods to be applied in making outsourcing decisions. If management makes these determinations based on published government guidance materials, costing approaches are likely to be both inappropriate and inconsistent.

In terms of costing systems per se, the qualitative case and depth interview research showed that most organisations had inadequate costing systems – systems which did not enable users to access or to develop estimates of in-house production costs. These systems are illustrative of Johnson and Kaplan’s (1987) contention that management accounting systems are often subservient to the demands, procedures and cycle of financial reporting systems. Researchers of outsourcing by the public sector overseas have also noted significant trends toward the preparation of aggregated financial information, ‘detracting from the detailed resource utilization and cost data needed for pricing decisions and contract negotiation’ (Brignall & Modell 2000, p. 297). In Australia, government oversight bodies, such as the NSW COCog (1998a) and the Australian National Audit Office (ANAO 1998, #2.9), similarly made the point that
costing systems in Australian public sector organisations are frequently deficient, and are subordinate to financial reporting systems.

Analysis of relevant survey data showed that while most respondents were satisfied with the appropriateness and adequacy of their organisations' costing systems for decision-making purposes, they were significantly less convinced of the adequacy and appropriateness of those systems specifically for making outsourcing decisions. Further, the more poorly rated the costing system for providing information for decision making, the more expensive managers believed it would be to improve that system. Consequently, in Cooper and Kaplan's (1988) terminology, the higher the cost system error costs, the higher the discovery costs of obtaining better information. Compared to those from local and State government organisations, managers of Federal organisations were significantly less convinced of the adequacy and appropriateness of their organisations' costing systems in general and in providing information for making outsourcing decisions.

In applying costing methods to produce information for use in making outsourcing decisions neither the case organisation, nor any of the other organisations studied as part of the qualitative research, used appropriate methods. In agreement with US research revealing that 50% of 120 local government areas studied had no costing or other methodology for comparing in-house and contractor bids (Martin (n.d) cited in Sciuilli (1996)), most organisations studied as part of the current qualitative research did not cost their outsourcing decisions.

On the rare occasions when the case organisation costed in-house production for outsourcing decision-making purposes, the types of costs included were incomplete and/or irrelevant. Some decisions were made ignoring direct overhead costs, and others included sunk costs or unavoidable, allocated, common costs. Similarly, of the minority of depth interview managers from organisations that actually costed outsourcing decisions, in-house production cost estimates were usually based on full cost, including unavoidable and sunk costs. Results of the survey questionnaire confirmed these findings. It was found that in costing for outsourcing decisions, most surveyed organisations frequently use a full cost basis and include allocations of general overhead and governance costs, which are often unavoidable. Further, 50% of organisations claim to use avoidable costs always or often, and 77.6% of these just as frequently
include allocations of general overhead and governance costs in estimates of in-house production costs.

In the current research there were several significant differences identified in the use of particular costing methods. Notably Federal government organisations used less appropriate and less relevant methods for estimating in-house production costs compared to their local and/or State government counterparts.

The results provide strong support for Research Proposition 6 revealing that costing methods used in outsourcing decision making are not only inappropriate for the purpose, but are often used inconsistently.

Existing research evidence from commercial organisations suggests that a cost minimisation objective or strategic priority would be accompanied by an emphasis on internal cost accounting information (see Shank & Govindarajan 1993; Abernethy & Guthrie 1994). However, developments in Australian public sector accounting and accounting systems have emphasised the provision of decision-useful information to satisfy accountability obligations to external users at the expense of providing decision-useful information for internal users (NSW COCOG 1998a, b). The NSW COCOG (1996, 1998a, b) found that knowledge of costs and outputs varied widely between different State public sector agencies, and that financial management information is either not ideally presented or not available.

More recently, the ANAO (1998) report on Costing of Services in the Australian public sector confirms, on a national level, that costing and management accounting systems of Australian public sector organisations are deficient. The audit discovered that:

- 'costing processes in most organisations were based on simple cost models that relied on arbitrary or subjective allocations' (#1.21);
- 'costing systems encountered in the organisations are ... simple [and] unstructured' (#1.22);
- 'most organisations did not exhibit all the fundamental elements of an effective control framework to support the proper collection and use of cost information' (#1.23);
- 'organisations ... captured and used costing information to satisfy mainly external requirements as opposed to the requirements of internal management' (#2.9); and,
- 'the finding of this report that most organisations in the APS [Australian Public Sector] do not have effective cost information systems' (#2.26).
Such deficient costing systems may be the result of what Dunk (1989) described as 'management accounting lag'. While adoption of technical innovations, such as manufacturing processes, or such as outsourcing (in the context of this research) lag little or not at all behind current research and developments, implementation of administrative systems (such as costing systems) to support them lag behind.

The findings of the research align with the guidelines published by government and public sector bodies, many of which contain misleading and inaccurate costing and valuation advice, as identified by CTC Research Team (1995b), Johnstone & Gaffikin (1996), Johnstone (1997, 1999), and Pilcher (2000).

The finding also indicates that information evaluators (accountants) and decision-makers (managers) have little understanding of the nature of costs and of which costs are relevant in making outsourcing decisions. Walker and Walker (2000) reached the same conclusions. They found that Australian government guidance on outsourcing reflects 'an astonishing lack of knowledge' of cost behaviour and analysis (p. 165) and is 'technically flawed' (p. 169).

The combination of poor public sector accounting systems, and inadequate and incorrect government costing guidance publications provide ample explanation for why organisations use inappropriate and inconsistent costing methods in preparing information for use in making outsourcing decisions.

6.2.7 Research proposition 7: Findings

*Australian public sector organisations use cost information to assess if cost savings have been made from outsourcing, consistent with the cost savings objective of outsourcing.*

The research findings failed to support this proposition. The findings concerning Proposition 1 (section 6.2.1) established that the cost savings objective is often not pursued by Australian public sector organisations. Nevertheless, findings for Proposition 2 evidenced that many organisations feel pressured to outsource in order to comply with government policy. 'Control over the effectiveness of government activities involves the fulfilment of political goals by effective administration' (Glynn 1993, p. 48). Therefore, it is expected that assessments would be made of whether cost savings are achieved, *ex post*, in line with the government requirements for
organisations to make such evaluations (eg. the NSW Premier’s Department 
Procurement and Disposal Guidelines 1995; see also CTC Research Team 1995b).

The case study organisation did not develop or use any information to substantiate if 
cost savings had been made from outsourcing, nor review the costs of outsourcing, after 
the fact, at any level within the organisation. Supporting this finding 87% of 
organisations studied through depth interviews never evaluated the ex post costs of 
outsourcing. Analysis of the survey data revealed that:

- 55% of managers claimed that outsourcing generally produced cost savings; but 
that,

- few organisations always evaluated the cost outcome of outsourcing decisions, and 
some 20% rarely or never made such evaluations;

- Federal government organisations were significantly less likely than local 
governments to evaluate the ex post cost outcome of outsourcing decisions;

- most organisations made post-outsourcing decision evaluations on inappropriate 
bases or on the basis of non-cost factors, and the most frequently produced 
evidentiary material pertained to non-cost information;

- 17.5% of managers who claimed that their organisations evaluate the cost economy 
or efficiency of outsourcing also stated that their organisations do not produce 
evidence to determine whether or not cost savings or efficiency gains are produced 
by outsourcing; and,

- only 21.3% of organisations produce relevant information concerning whether or 
not cost savings are derived from outsourcing.

These results indicate that in most organisations claimed cost savings are more likely 
perceptions than actualities. Public sector organisations either do not evaluate 
outsourcing decisions after the fact or do not keep the information necessary to do so. 
Evidence from the USA (Smith, J. M. 1990, p. 1) indicates that reported cost savings 
from outsourcing by the public sector are unreliable and inaccurate because government 
does not collect the information necessary to prove cost-effectiveness. A survey of 
NSW local governments (PSRC 1996, p. 1) also produced findings consistent with 
those of the current research, noting that:

councils are unable to provide accurate information on expenditure for work 
contracted out or competitively tendered. As a result, there is no systematic and

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comprehensive monitoring and evaluation of the impacts of competitive
tendering and contracting out practices within councils.

Other examples reinforce these points. The terms of reference of the Public Accounts
and Estimates Committee (1998) sub-committee’s Inquiry into Outsourcing in the
Victorian Public Sector included:

- ‘assess whether the organisations conducted a base line costing and established objectives
  before outsourcing’; and,
- ‘assess whether the organisations are monitoring the outcomes of the outsourcing and the
  performance of the contractors’.

The Committee was questioning not only whether outsourcing objectives were
predetermined, and if they relate to costs, but also whether any evaluations were made
of cost and other outcomes subsequent to the outsourcing decision. A Federal
Committee (SF PARC 1998) conducted an investigation along the same lines,
concluding that ‘excessive concentration on the process, at the expense of outcome has,
legitimately, been criticised’. Echoing this conclusion, Bailey & Davidson’s (1999)
extensive survey of UK local government outsourcing found there to be too much focus
on inputs and processes, to the detriment of outputs and outcomes. So too, Chalmers
and Davis (2001, p. 74) contend that contracting in the Australian public sector ‘raises
questions about political control ... and the prospect of gaps between intention and
outcome’.

The current research confirms and adds to these earlier findings. The cost savings
objective of outsourcing decision making was found not to be as important as managers
espoused, and was not usually assessed or evaluated as an outcome of the decision.
There were thus gaps between intention and outcomes. Furthermore, descriptions of
outsourcing decision-making practices garnered from managers highlighted the
importance of political factors, and the haphazard approaches to and processes of
making outsourcing decisions in many organisations. One survey respondent, a
manager of a Victorian budget-funded organisation, summarised the issue in saying
‘whether some benefits are achieved depends on the real reason for outsourcing and the
quality of the process used to carry it out’. There is evidence for concluding that in
many Australian public sector organisations, not only do the outcomes or outputs of
outsourcing decisions receive limited attention from organisational managers, but often
the processes used to make the decisions fail to reflect either espoused intentions or
desired outcomes.
Overall, sections 6.2.5 to 6.2.7 of this Chapter suggest that costs and costing information serve a relatively unimportant role in outsourcing decision-making. Where costs are considered by organisations in making outsourcing decisions, they are often sourced from inadequate costing systems, are not inclusive of both production and transaction cost components, are calculated using inappropriate and mixed, inconsistent methods, and are afforded very little importance in establishing the outcomes of decisions.

6.2.8 Research proposition 5: Findings

The role of costs and costing information for outsourcing decisions in Australian public sector organisations is influenced by organisation size (5A); and, the role of costs and costing information for outsourcing decisions in Australian public sector organisations is influenced by organisation type, level of government, and organisation location (5B).

Results demonstrated little support for Proposition 5A, or for the variable relating to organisation type in Proposition 5B. However, both level of government, and organisation location (Proposition 5B) were significant in explaining the role of costs and costing information.

Proposition 5A, derived from the contingency theory literature, suggests relationships between organisation size and the role and importance of costs in outsourcing decision-making. Prior research (e.g. Merchant 1984; Jones 1985; Simons 1987) has established that organisation size appears to be positively related to increased use of more sophisticated MAS and this relationship was expressed formally in:

**H 5A.1 Costs and costing information increase in importance in the outsourcing decision-making of Australian public sector organisations as organisation size increases.**

Proposition 5B suggests that the type of organisation, its level of government, and location, affect levels of decentralisation, strategy, funding, and public accountability (Sinclair 1988; Hatry 1989; Passfield 1989; Churchill 1995; Donaldson 1995a). And, following contingency theory (Merchant 1981, 1984; Moores & Booth 1994), these factors differentiate the degree of formality, sophistication and use of MAS.
Based on prior research results, compared to other types and levels of government organisations, local governments would be expected to use more sophisticated costing information in outsourcing decision-making as expressed in:

**H 5B.1:** Costs and costing information are more important in the outsourcing decision-making of Australian local government organisations than in Australian budget-funded and self-funded public sector organisations, or State and Federal level public sector organisations.

Local governments have: a longer history of outsourcing experience (Berenyi & Stevens 1988; SOLACE & LGTB 1988; Rimmer 1998); a greater propensity to outsource (Industry Commission 1996); and lengthier experience in using accrual accounting (by virtue of AAS27), activity-based costing (ABC) systems, and other non-cash based costing methods (Hoban 1992; VAMA 1993; Cocker 1998).

For the depth interviews sample of organisations, costing systems were generally ranked more favourably, costs and financial factors more important, and comparison of in-house versus outsource costs more likely as organisation size increased. For this sample, it was also found that self-funded organisation managers had less favourable perceptions of their organisations' costing systems, rated costing information less important in outsourcing decision making, and were less likely to compare in-house and outsource costs than managers from local government and budget-funded organisations. Correspondingly, Domberger, Hensher and Wedde (1993) found that while cost efficiency concerns were paramount in the outsourcing decisions of Australian local governments and budget-funded departments, they were not the chief issue for Government Trading Enterprises (self-funded organisations).

However, the survey questionnaire component of the current research produced few significant results concerning the influences of organisation size and type on the use and importance of costing information in outsourcing decision making. While it was found that compared to large organisations, small organisations are significantly:

- less likely to outsource (a finding supported by Ferris 1986);
- less likely to outsource in order to satisfy government policy;
- less likely to outsource if the organisation currently possesses highly specific physical assets; but,
- more likely to outsource if a service entails complexity and performance ambiguity,
these differences do not directly address the question of how organisation size influences the role of costs. Only two significant differences were associated with organisation size, small organisations have lower costing system discovery costs, and are more likely to formally consider contractor search costs in making outsourcing decisions.

There were also few significant differences in relation to organisation type. Survey results revealed that local governments were significantly smaller organisations, and significantly more likely to use ABC information in making outsourcing decisions than other types of organisations. The lack of significant results accords with Flannery (1998), who failed to find discernible differences relating to cost or budgetary factors in outsourcing practices between different types of organisations.

Two other demographic variables, organisation location, and level of government, possessed measures of explanatory power.

*Jurisdictional factors*

The research described in this thesis has shown that outsourcing decisions in Australian public sector organisations are generally made following a political model of choice, which may also embody some elements of the bounded rational approach. In most cases outsourcing decisions are also affected by external political influences which are particular to the public sector. The findings of the research are therefore at variance with Domberger’s (1998) claim that ‘in the public sector, contracting is ... independent of politics’ (Domberger, quoted in *Gazette* 1999, p. 22). Rather, the research mirrors an earlier Domberger & Hall (1996) finding that uptake and implementation of outsourcing in the Australian public sector varied across jurisdictions, often according to the political orientation of the government in power in particular States or localities. That study showed, and the current research confirms, that public sector outsourcing and politics are linked in a definable way.

Government level, or jurisdictional factors, explained significant differences in the role and use of costs in the outsourcing decisions of Australian public sector organisations. As hypothesised (H 5B.1), results of the analysis of both qualitative and quantitative data demonstrated that local governments, while significantly smaller than other organisation types, were much better equipped to prepare cost-related information and
consider the cost ramifications of outsourcing, and particularly so in comparison to their Federal government counterparts. There were several significant differences in the utilisation of particular costing methods between local and Federal organisations, and, in all cases, local governments were significantly more likely to use more appropriate costing methods (eg. avoidable costs, DCF/NPV analysis) and to more frequently consider the transaction costs of monitoring contractors.

**Location factors**

Organisation location may reflect jurisdictional factors, such as the effects of mandatory CCT on Victorian local governments, and the manner in which those organisations use costing information in making outsourcing decisions. In several cases, statistically significant differences were apparent in the costing practices adopted in public sector organisations in NSW and Victoria. Victorian organisations were significantly more likely to include an allocation of general organisation overhead and governance costs in determining in-house costs, and to use DCF/NPV techniques, in making outsourcing decisions.

The State location of public sector organisations were found to impact not only upon costs and costing methods in the decision process, but also upon some of the market and transactional factors, such as site specificity and competitiveness of markets.

However, the results showed that organisation location has other implications for outsourcing and the importance accorded and use made of costing information. In particular, a divide between the propensity to outsource and the outsourcing practices of metropolitan versus rural and regional organisations was apparent, especially at the local government level.

Supporting this conclusion, the PSRC (1996) found differences in outsourcing practices consistent with a differentiation between rural and metropolitan councils, such that rural councils had economic policies giving preference to local businesses and workers. Others, including Pinch and Patterson (2000), and Hodge (1996, p. 56) conclude that regional economic development and local employment issues are significant factors in local government outsourcing decisions. The veracity of these findings and conclusions was exemplified by a recent State government proposal to introduce CCT for specific road-related services in NSW councils. The proposal met with scathing criticism from
non-metropolitan councils and when abandoned was ‘welcomed by rural and regional councils concerned about job losses’ (WIN News 1999). In addition to the direct relationship between the impact of outsourcing, and concerns about local employment and other regional issues, there may well be a further political dimension to the reluctance of rural and regional councils to outsource. The use of ‘outsiders’ and losses of local jobs may reflect badly on councillors, and have a flow-through effect on their chances of re-election. Thus, the outsourcing decisions of local councils may be as much a result of the politically motivated and self-interested behaviour of elected officials as they are about local economic concerns.

6.2.9 Research proposition 8: Findings

Non-financial factors, such as improved service quality, greater flexibility, and access to better technology, are considered in making outsourcing decisions in Australian public sector organisations.

Analysis of results demonstrated that several non-cost factors impinge upon outsourcing decisions and provided very strong support for Proposition 8. The qualitative research conducted suggested that many organisations outsourced for reasons unrelated or not solely related to cost and financial factors. Five factor groupings were derived from this analysis indicating that, in making outsourcing decisions, organisations considered:

- staffing and labour-related factors;
- cost and financial factors;
- quality and customer-related factors;
- contractor control and performance factors; and,
- other miscellaneous and context-specific factors.

Of these factors, staffing was most important in making decisions to outsource, while contractors control and performance factors were most important in decisions not to outsource.

Consistent with these results, analysis of survey data showed that while managers claimed cost and financial factors to be the single most important consideration in outsourcing decision-making, this factor was weighted as accounting for only 37% of managers’ outsourcing decisions (followed by staff-related factors at approximately 24%). A factor analysis of the quantitative data revealed that factors related to making outsourcing decisions, as perceived by survey managers, were of four chief types:

- a Service Performance and Control factor;
- a Managerial Responsibility factor;
- an Asset Divestiture factor; and,
• a Service Complexity factor.

The Managerial Responsibility factor was generally viewed negatively in outsourcing decision-making, while the other factors were viewed positively. The Service Complexity factor was the most positively viewed by managers. The factor included need for specialist expertise, and complex and technical services statement items. This factor reinforces the importance of staff-related factors noted earlier. The degree of positive response for this factor also substantiates the lack of support previously reported in respect of Proposition 4B. According to the TCE position expressed in that proposition, high human asset specificity and high service complexity should instead detract from outsourcing. Of further note is that none of the four factors derived contained an element relating to cost reduction.

Other researchers have noted that public sector managers perceive there are many other non-cost related advantages, disadvantages, and non-financial factors involved in outsourcing decision making (see for example, Ferris & Graddy 1988; Christie 1991; Hirsch 1995b). Even Australian government sponsored reports (eg. ITRG 1995) have acknowledged that organisations outsource ‘for reasons other than costs, including achieving greater reliability [and] … to get better service’.

Results of the analysis of data relating to both Research Propositions 1 and 8 therefore suggest that while cost reduction is claimed to be the most important objective of outsourcing, in practice it is often not the most important reason for outsourcing. Instead, several non-financial factors are considered in making outsourcing decisions in Australian public sector organisations, and these factors are individually or collectively more important than cost and financial factors.

Domberger, Hall and Jeffries (1995) also found that cost efficiency was not the most highly rated reason for Australian public sector organisations to outsource. Rather, effectiveness (ensuring service delivery) was most important, and 85% of respondents in their study\(^2\) rated government directives, lack of expertise, budget directives, and resource constraints as very important. A later Domberger and colleagues study\(^3\) (CTC Research Team 1995a) also found effectiveness more highly rated than cost efficiency.

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\(^2\) The study was of 43 Australian Federal government agencies.

\(^3\) The study was of 1,151 single outsourcing contracts in NSW government departments and agencies.
Other key factors in outsourcing decision making included lack of in-house resources and lack of expertise. Also, consistent with the results of the current research, Botsman (1995) found that Australian local government managers perceived that flexibility, asset reduction, access to new and better assets and access to better specialist expertise were some of the factors favourable to outsourcing.

Each of the factors discovered in the prior Australian studies were found to form part of the meta-factors of Service Performance and Control, Asset Divestiture, and Service Complexity which were statistically derived in the current research. Similarly, Botsman (1995) found that loss of accountability, increased liability and risk, and increased management and supervisory burdens were perceived as disadvantageous to outsourcing. Such factors formed part of the meta-factor of Managerial Responsibility derived in the current research, and which was also found to impact unfavourably on the consideration of the outsourcing option.

6.3 Specific conclusions

If considered against the research questions posed in Chapter 1 and the research propositions developed in Chapter 2, the findings of this research lead to the following specific conclusions:

- Cost savings are claimed or perceived to be the most important objective of outsourcing by Australian public sector organisations, although in practice other objectives are jointly or individually more important.

- Outsourcing decisions in Australian public sector organisations generally reflect a political model of choice, and these decisions are further constrained by externally imposed public sector political imperatives.

- Because Australian public sector organisations do not produce or use reliable estimates of in-house costs or transaction costs, they may often choose to outsource for services when the purchase and transaction costs associated with external supply are greater than the costs of continued in-house provision.

- The outsourcing decisions of Australian public sector organisations are not influenced by human factors relating to goal incongruence and opportunism in the
manner predicted by TCE. Rather, the existence of opportunism and goal incongruence tends to promote political approaches to decision making.

- The outsourcing decisions of Australian public sector organisations are influenced by transactional factors such as asset specificity, performance ambiguity and complexity, uncertainty, and the competitiveness of markets, although not necessarily in the direction predicted by TCE. High site specificity and lack of competitiveness in markets, which were revealed by the research as being interrelated, reduce the propensity to outsource as predicted by TCE. However, high human asset specificity and uncertainty tend to promote outsourcing, while high physical asset specificity and high complexity and performance ambiguity have a less certain impact.

- The role of costs and costing information in making outsourcing decisions in Australian public sector organisations is not significantly influenced by organisation size or organisation type, but is significantly influenced by jurisdictional factors and organisation location.

- Costing methods used to determine in-house costs for use in making outsourcing decisions in Australian public sector organisations are inappropriate for the purpose.

- Australian public sector organisations generally do not assess whether cost savings have been made from outsourcing, and usually evaluate outsourcing decisions on the basis of non-cost information.

- Non-financial factors are considered and are more important than financial factors in making outsourcing decisions in Australian public sector organisations.

### 6.4 Contributions of the research

The key, unique contributions of this research, highlight:

- that much of the largely anecdotal evidence about the reasons for and problems of outsourcing by the public sector, and the role of costs within this outsourcing context, is erroneous;

- that Australian public sector outsourcing is as much, if not more about internal organisational politics and external political pressure, as it is about cost reduction;
• the inadequacy of TCE and economic models in describing, explaining or predicting the outsourcing decision-making behaviour of Australian public sector organisation managers; and,

• the danger in accepting findings of prior research on cost savings from outsourcing in shaping and informing government policy and organisational practices.

The research presented in this thesis contributes to the theoretical knowledge and frameworks purporting to explain outsourcing behaviour, as well as to other theories of organisational structure and to accounting theory. The research findings have implications as well for the policy and practice of outsourcing in the Australian public sector. Several methodological innovations were applied in conducting the research and which contribute to the accounting research methods literature.

6.4.1 Implications for theory

While agency theory and TCE predictions concerning the effects of self interested or opportunistic behaviours, and goal incongruence, on organisations’ outsourcing decisions were not validated by this research, both the self-interestedness and opportunism of managers, nevertheless, appeared to play roles in shaping the political context of outsourcing decisions. In addition, while goal incongruence did not affect outsourcing decisions in the manner expected by TCE, it did contribute to the political climate within which outsourcing decision making occurs. These behaviours were reflected in the internal politics operating in organisational decision making scenarios and also in the interplay between internal decision making and the effects of externally imposed political imperatives on that decision making. As previously suggested, rather than managers’ goal incongruence promoting organisations to outsource within a bounded rational decision framework, the existence of goal incongruence instead resulted in organisations making outsourcing decisions in a manner consistent with the political model of choice.

One of the chief problems encountered in applying the TCE framework to Australian public sector outsourcing decisions is that the framework assumes managers will make outsourcing decisions in accord with a cost economising objective. The research has shown that these decisions are more often made to meet other objectives. Given that the objective function of these decisions is not a cost economising one, then much of the subsequent precepts of TCE theory, which are based on this objective function, lose
relevance. For example, the cost economising objective implies a bounded rational approach to decision making. In the absence of this objective, and particularly in cases where there are multiple objectives, as the current research has demonstrated, bounded rationality is not necessarily operative. While the logic of TCE is sound, like any other theory based on an initial premise, it can become unworkable if that premise is invalid.

Confirmatory TCE research (see Shelanski & Klein 1995 for review) has most frequently been conducted in commercial, profit-seeking, private sector firms, and when other complexities concerning the behavioural, social, political and environmental dimensions of the Australian public sector are added to the mix, the theory is challenged.

TCE may well explain outsourcing and the role of costs in some organisations, but it fails to do so for Australian public sector organisations. In their critique of TCE, Moran and Ghoshal (1996, p. 70) reach a complementary conclusion, stressing that:

> the gulf between theory and practice lies in the lack of realism and balance [in TCE, and] whereas these abstractions, stylizations and restrictive assumptions have enhanced our understanding of certain isolated situations, they are not yet sufficiently general to apply to practice in any meaningful way.

Contingency theory assumes that while there is no universally acceptable or optimal design for organisations, decision-makers are nevertheless bounded rational in their behaviour. According to contingency theory, the structure of an organisation is contingent upon many factors specific to the organisation and its environment, including contingencies such as uncertainty, size, and strategy. Accounting researchers propose that since accounting systems are part of organisations, accounting systems are also contingent upon the structure of the organisation and the variables that affect that structure. The lack of appropriateness of the assumption of a bounded rational model in Australian public sector outsourcing decision-making has already been addressed. So too, contingencies relating to organisation size and type were shown to have little impact on the role and use of costs in making these decisions.

Contingency theory also suggests that in a public sector setting, parent organisations have powerful roles in shaping the organisation. These parent organisations can include governing boards and parliament, and there was evidence from the current research to indicate that external political influences affected the outsourcing decisions of organisation managers. The findings concerning jurisdictional issues may also reflect
this contingency, and further research along these lines may improve the capacity of contingency theory to explain public sector outsourcing decision making and the role of costs in making these decisions.

The results and findings suggest that in outsourcing many public sector organisations do not pursue the cost savings objective prescribed by governments, nor afford cost-related factors a high priority in outsourcing decision-making. In terms of accounting theory, the current research thus has implications for management accounting research dealing with dysfunctional behaviours and the political role of accounting.

'There is a long tradition of scholarly inquiry which has sought to illuminate the dysfunctional as well as the functional consequences, both latent and manifest, of the accounting craft' (Hopwood 1983, p. 292). The current research adds to this inquiry and even extends it into a largely ignored domain of investigation. This extended domain of accounting study is one where, despite logic dictating that accounting information should be relevant, useful and important, empirically it is found not to be. Rather, its role is subservient to other human, organisational and environmental factors and forces.

6.4.2 Implications for policy & practice

Davis and Wood (1998, p. 85) claim:

on the basis of concerns discussed across Australian jurisdictions, it appears contracting has developed so quickly it outstrips the capacity of government to monitor what is happening, and so learn from mistakes.

This claim is not unfounded. Until public sector organisations have adequate costing systems and apply appropriate costing methods in outsourcing decision making, the study of purported cost savings resulting from outsourcing appears wasteful and could result in misdirection of both public sector managers and policy makers.

While the current research found that public sector managers reiterated the government line that outsourcing is directed at the achievement of cost savings, their actual decision making often had little to do with saving costs. The qualitative research conducted was particularly suggestive of public sector managers' blind obedience in complying with policy mandating outsourcing, regardless of the objective, the process, or the outcome. The research also suggested that some managers believe cost savings are an inevitable outcome of outsourcing. Both of these observations go some way in explaining why
few organisations actually use relevant *ex ante* cost information for making outsourcing decisions or make relevant *ex post* cost evaluations of the outcomes of decisions.

These problems are exacerbated by the inaccurate and misleading guidance on how to cost outsourcing decisions which is produced by government and the public sector. Much of this guidance, in suggesting organisations base in-house production cost estimates on full costs, contradicts the wisdom of the cost and management accounting literature. This suggested use of full costs almost guarantees that outsourcing will appear to be the cheaper alternative because the in-house option will be over-costed, and given that transaction costs are often not considered, the outsourcing option will be under-costed.

Data analysed in this thesis revealed a plethora of costing methods are applied in making outsourcing decisions, and that many of the methods in use are inappropriate for the purpose, and that mixed, inconsistent methods are used not only across, but within organisations. The latter point was reinforced by the MAB’s (1998, see also Morphett 1998) survey research findings concerning the measurement of financial information in Australian public sector organisations. Lack of useful and correct government guidance on costing outsourcing decisions aggravates the problem and undermines both the pursuit and achievement of the prescribed cost reduction objective. These costing guidance publications are in desperate need of review. Heeding calls to improve the qualifications and skills of financial officers and accountants in public sector entities (see MAB 1998; ASCPA 2000; Walker & Walker 2000) may also improve currently inadequate cost accounting systems, as well promote the use of more appropriate costing methods in producing information for outsourcing decision making.

### 6.4.3 Implications for methodology of accounting research

In addition to the theoretical, policy and practical contributions and implications of the research, this thesis has also introduced innovations in the methodology of accounting research. In particular, the application of a critical realism paradigm to addressing the research question represents a fundamental philosophical or meta-theoretical shift in, and methodological alternative to, approaches most commonly used in research in accounting. Critical realism was shown to be an alternative worldview, quite different to the traditional positivist and emerging interpretivist paradigms usually applied in accounting research endeavours.
The multi-methods research design, appropriate to investigating the research question, was also a more innovative approach to research in accounting. Critical realism, and the associated use of both qualitative and quantitative methodologies, provided scientific and empirical rigour, acknowledged the value of richness and context, as well as recognising the importance of generalisability.

A further research method innovation was introduced to the study by using email technology for distributing a selected sub-sample of survey questionnaires and for effecting follow-up with potential respondents. Collectively, such innovations advance and illustrate the usefulness and application of alternative research paradigms and research methods within accounting contexts.

6.5 Limitations

Several limitations and delimitations relating to the scope of the research and the underlying research paradigm and research methods were considered in Chapters 1 and 3. The research presented in this thesis was concerned with the role and importance of costs in the outsourcing decision making of Australian public sector organisations. The research concerns only Australian public sector organisations and may not be readily transferable to other environments, such as those of public sector organisations in other nations or to the private sector in Australia or overseas. Further, the findings are contemporaneous. Subsequent, significant changes to government policy, law, or other external variables may affect the relevance and validity of these findings.

The argument and evidence offered were not concerned with determining whether outsourcing is economically or socially desirable. Nor was the research aimed at calculating the amount of outsourcing undertaken by the public sector, the costs of providing public services using in-house resources, or the amount of cost savings that might result from outsourcing for services.

Consistent with the critical realism view adopted, and discussed in Chapter 3, the results derived from the research can be regarded as indicative of tendencies, and underlying structural and generative mechanisms, rather than universally applicable, causal explanations. Caution needs to be used in making generalisations based on overall results for the combined sample of organisation types used in the quantitative aspect of the research. Factors such as jurisdiction or location created significant differences in
results. Results for the self-funding organisations' sub-sample also need to be viewed cautiously since there were external restrictions imposed on the identification of self-funded organisations in the population. For all types of organisations, there were also difficulties encountered in contacting those selected in the initial survey sample, and this could introduce a small level of bias in the results.

6.6 Implications for future research

The quantitative data and analysis presented in Chapter 5 showed that several demographic variables, such as level of government, are useful in describing and elucidating a number of the outsourcing and costing for outsourcing issues considered in this thesis. More work could be done to examine how outsourcing and costing practices vary within and across organisations from local, State and Federal jurisdictions. Differences were also apparent in the costing and outsourcing practices of organisations located in different States and Territories, and qualitative analyses, based on case study and depth interviews, exhibited variation across rural/regional versus metropolitan locations. Additional study of organisation location and jurisdictional variables, therefore, could prove enlightening.

Apart from these environmental and organisational variables, future research concerning the characteristics of individuals is also suggested. In particular, the influence of party political views observed in the case organisation, in terms of the objectives of outsourcing and the role afforded costs in outsourcing decisions making, is an area worthy of further study. While correspondence between the party politics of managers and their outsourcing decision making behaviour does not appear to have been empirically tested in prior research studies, Granof (1998) contends that ‘where individuals stand on particular outsourcing decisions may be strongly influenced by their own political persuasions’. The case study research reported in this thesis provides some confirmation of Granof’s contention, and more could be done to test this proposition.

Other than further investigating costing and outsourcing practices based on these variables, the consideration of other contingencies and the application of alternative theories in future research efforts to describe, explain or interpret the outsourcing behaviour of public sector organisations is likely to enrich understanding. The research results strongly suggest that a variety of non-economic models of organisation structure

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may provide more complete descriptions of public sector outsourcing practices particularly considering the role that political forces appear to play.

Potentially fruitful and alternative theoretical perspectives may include legitimacy theory and institutional theory, to interpret public sector outsourcing behaviour within societal contexts, or resource based theory (see for example, Conner & Prahalad 1996) and organisational capability theory (see for eg. Madhok 1996), to interpret outsourcing behaviour within a bundle of knowledge and resource-based orientations and constraints. The latter two perspectives may be particularly revealing given that the current research has demonstrated the propensity for Australian public sector organisations to outsource high expertise, specialist, and technical tasks and functions. These alternative theoretical perspectives could also be applied together with more subjectivist epistemologies.

Further research that enlarges or internationalises the samples used in the current research would also assist in providing a greater degree of statistical generalisation of results, and the fuller investigation of particular themes unearthed in the current research. For example, there is potential to study the effect of data manipulation by public sector managers on the role and significance of costs in outsourcing decisions. If managers are opportunistic, and if their performance is judged by reference to accounting numbers, then their job security and remuneration are affected by results reflected in accounting numbers. Are there then incentives to manipulate costs and thereby skew or misrepresent costs and costs savings? Positive accounting researchers have dealt with data manipulation from financial accounting and annual reporting perspectives, and management accounting aspects of public sector outsourcing might be an interesting extension of this theme.

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6.7 Conclusion

Although governments have moved with great haste to implement competitive tendering [outsourcing] this brave new world rests on many courageous and untested assumptions (O’Faircheallaigh, Wanna & Weller 1999, p. 136).

A descriptive theory of management accounting would aid in understanding the conditions under which prescriptions from normative models are feasible, the causal pressures affecting management information choices and the effects of choices on organizations and people (Tiessen & Waterhouse 1983, p. 251).
The research presented in this thesis has sought to examine and test a number of the assumptions which underlie public sector outsourcing in Australia, in particular those assumptions which derive from economics and are reflected in government policy and the cost savings objective. Many of these assumptions were found wanting, failing to either describe or explain outsourcing decision making in the Australian public sector and the role and importance of costs and costing information within these scenarios.

The research also illuminated how management accounting is used in a particular (outsourcing) decision making context in certain types of (public sector) organisations and investigated whether the prescriptions of normative and other models apply in this context. The research has provided conclusions and offered suggestions to explain management information choices, and mapped some of the effects of those choices on the organisations and managers concerned. The research has thus offered insights into how these organisations and managers prepare, use, and even ignore or misuse accounting information in decision making.
REFERENCES

The referencing standard used in the body of the thesis and in this bibliography conforms to the Charles Sturt University preferred reference system detailed in the following publication:

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http://www.abs.gov.au


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APPENDICES
Appendix 1

Content analysis study of outsourcing literature
Introduction

Why or when an organisation does or does not consider outsourcing is not a simple question to answer. As the literature review in Chapter 2 of this thesis revealed, there are a number of considerations, benefits and problems involved in the decision to outsource, and each organisation does not necessarily pursue the same objectives or have the same reasons for outsourcing or not outsourcing. The broad spectrum of outsourcing literature is reflective of many of these objectives and reasons. Taking a typical literary source, the British government’s Market Testing Programme (Rotherby & Robertson 1995) suggests that activities should be outsourced which are:

- resource intensive;
- relatively discrete areas;
- specialist and other support services;
- subject to fluctuating work patterns;
- subject to a rapidly changing market and where it is difficult to hire and train appropriate staff; and,
- affected by rapidly changing technology and require expensive investment.

The extent to which this list is representative of general opinion and research findings is unclear. Consequently, the content analysis of outsourcing literature was conducted primarily in order to garner information on the nature of the objectives of and variables affecting the outsourcing decision.

Method

The content analysis used in the study was an ‘objective, systematic and quantitative description of the manifest content of a communication’ (Cooper & Schindler 1998, p. 417). Data, within a unit framework, were systematically quantified according to frequency of occurrence. This contrasts with more latent and interpretive forms of content analysis, designed to assess images of people, attitudes, and actions by interpreting the meaning of words and phrases contained in verbal messages (Morales 1995), rather than merely counting the frequency with which a particular term or phrase is used (Sarantakos 1993).

Listings, within the literature, of the reasons for, advantages and disadvantages of, and factors considered in outsourcing were content analysed. A similar study was conducted by Altinkemer, Chaturvedi and Gulati (1994) who content analysed
references to Information Systems (IS) outsourcing in the annual reports of 62 multinational and United States (US) companies.

Unlike the content analysis study reported in this thesis, Altinkemer, Chaturvedi and Gulati (1994) did not look for mention of disadvantages or problems of outsourcing in the material they analysed. Of the 62 annual reports analysed by these researchers few reports actually provided the required information, reducing the effective sample size to 17 company reports.

Their sample size was quite small, and a much larger sample needed to be drawn to capture a comprehensive overview of the issues. To achieve this end, a stratified, random sample of pieces of literature was drawn from the literature database specifically compiled for this research. The database included more than 600 research studies, reports, journal articles and monographs, on outsourcing and related topics, as well as several hundred other works from various discipline areas. The sample drawn from the database was selected using Krejcie and Morgan’s (1970) table for statistically determining sample size.¹ Based on the 600 articles in the database, a sample of 234 literary works needed to be drawn. The sample represented approximately 40% of the total outsourcing literature database.

The sample was stratified according to sampling date, topic of paper or article, discipline area of the publication, type of publication, and publisher or sponsor. The stratification technique ensured the content analysis study was conducted using a variety of sampling sources and that the sampled literature was representative of that in the entire database.

The sampling unit for the study was a list within a single literary piece. For the purpose of the study, a list was deemed to comprise mention of at least three or more reasons for, or advantages or disadvantages of outsourcing, presented in:

- a self-contained list within the text; or,
- as a group of paragraph headings within the text; or,
- as a specific, stand-alone, summary paragraph on the topic.

¹ The procedure for using sample size tables and selecting a statistically appropriate sample is discussed in Chapter 3.
Of the literature analysed, 66 (28%) works contained lists of the reasons for, and/or advantages, and/or disadvantages of outsourcing. References for the literature content analysed appear at the end of this Appendix. The characteristics of each list comprising the sample, in terms of the chosen stratification characteristics, are presented in Table A1.1.

<table>
<thead>
<tr>
<th>Table A1.1 Content analysis sample characteristics</th>
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<tbody>
<tr>
<td>Characteristic</td>
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<tr>
<td>Date of publication</td>
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<td>Discipline area</td>
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<td>Publisher/sponsor</td>
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</table>
The lists were analysed both qualitatively and quantitatively. Qualitative analysis of the lists involved determination of whether each list presented positive and/or negative aspects of outsourcing, and a search for thematic similarities between individual items in multiple lists, using a pattern-matching technique. Contents of the lists were matched across individual literary sources to produce quantitative, frequency tables concerning the number of citations of particular reasons for, or advantages and disadvantages of outsourcing.

As discussed in Chapter 3 (Table 3.1), content analyses are normally strong on external validity, but weaker in terms of internal and construct validity due to problems of interpretation (Judd, Smith & Kidder 1991). By adopting a less interpretive approach in the study, these weaknesses were minimised. The selected sampling strategy assisted in maximising external validity, providing patterns of evidence concerning the variables and operationalising the constructs of interest. The opportunity for longitudinal analysis was also present. Threats of unreliability and bias were also reduced by employing the broad-based, sampling strategy previously described.

Of the 66 works content analysed, 38 (58%) listed both advantages and disadvantages of outsourcing, 26 (39%) listed only advantages, and 2 (3%) listed only disadvantages. Therefore, of the 66 articles examined 64 (97%) contained listings of reasons for and advantages of outsourcing \((n = 64)\), and 40 (61%) considered disadvantages or problems of outsourcing \((n = 40)\).

**Results – Reasons for outsourcing**

The results of the analysis of the reasons for or advantages of outsourcing are presented in Table A1.2.
Table A1.2 Reasons for & advantages of outsourcing

<table>
<thead>
<tr>
<th>Frequency rating</th>
<th>Reason/advantage</th>
<th>Number of citations (n = 64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cost savings</td>
<td>61</td>
</tr>
<tr>
<td>2</td>
<td>Provision of complex &amp; technical services</td>
<td>35</td>
</tr>
<tr>
<td>3</td>
<td>Improved service quality &amp; performance</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>Strategic reasons – focus on core business</td>
<td>26</td>
</tr>
<tr>
<td>5</td>
<td>Improvements in competitiveness &amp; contestability</td>
<td>23</td>
</tr>
<tr>
<td>6</td>
<td>Increased flexibility</td>
<td>22</td>
</tr>
<tr>
<td>7</td>
<td>Reduction in or redeployment of assets</td>
<td>20</td>
</tr>
<tr>
<td>8</td>
<td>Access to newer equipment &amp; technology</td>
<td>16</td>
</tr>
<tr>
<td>9</td>
<td>Risk reduction/sharing</td>
<td>13</td>
</tr>
<tr>
<td>10</td>
<td>Workforce reductions/downsizing*</td>
<td>13</td>
</tr>
<tr>
<td>11</td>
<td>Reduction in or redeployment of management’s load</td>
<td>12</td>
</tr>
<tr>
<td>12</td>
<td>Establishment of costs</td>
<td>12</td>
</tr>
<tr>
<td>13</td>
<td>Coping with activity fluctuations</td>
<td>11</td>
</tr>
<tr>
<td>14</td>
<td>Political reasons*</td>
<td>8</td>
</tr>
<tr>
<td>15</td>
<td>Service to consumers</td>
<td>7</td>
</tr>
<tr>
<td>16</td>
<td>Cheaper labour*</td>
<td>7</td>
</tr>
<tr>
<td>17</td>
<td>Greater managerial expertise</td>
<td>6</td>
</tr>
<tr>
<td>18</td>
<td>Improved incentives &amp; performance measurement</td>
<td>6</td>
</tr>
<tr>
<td>19</td>
<td>Increased accountability</td>
<td>6</td>
</tr>
<tr>
<td>20</td>
<td>Encouragement of innovation</td>
<td>5</td>
</tr>
<tr>
<td>21</td>
<td>Tighter financial controls &amp; improved accounting information</td>
<td>4</td>
</tr>
<tr>
<td>22</td>
<td>Avoidance of constraints*</td>
<td>3</td>
</tr>
<tr>
<td>23</td>
<td>Greater control &amp; better management</td>
<td>3</td>
</tr>
<tr>
<td>24</td>
<td>Clearer service standards</td>
<td>3</td>
</tr>
</tbody>
</table>

The qualitative analysis of content produced 24 categories of advantages of, or reasons for, outsourcing. In Table A1.2 several items are marked with an asterisk (*). These marked items are somewhat contentious and were seen by most authors as positive reasons for outsourcing, although some authors viewed these reasons in a negative light. For example, cheaper labour was presented in 7 (11%) works as an important and valid reason for outsourcing. However some authors, while acknowledging that cheaper labour can be a reason for outsourcing, viewed the use of cheaper labour as exploitative and contrary to good industrial relations. Similarly, the ‘political reasons’ category was presented by most authors as resulting from much-needed government structural reform, while some authors saw it as foisting mandated outsourcing upon organisations.

The most frequently cited reason for or advantage of outsourcing, as indicated in Table A1.2, is cost savings. Of the 64 literature sources listing reasons for or advantages of outsourcing 61 (95%) cited cost savings. This finding equates with the argument and numerous citations presented in the literature review of Chapter 2, supporting the case that cost savings are the predominant objective of outsourcing.
The second most frequently cited reason or advantage was the provision of complex and technical services (55%). For various reasons, such as staffing inadequacies, workforce cutbacks, or inability to attract appropriately qualified staff, outsourcing is often seen as a means for providing the staff and specialist expertise necessary to provide complex and technical services.

As a reason for outsourcing, improved service quality is self-explanatory, and was listed in 30 (47%) sources consulted. Some studies, particularly those of Domberger and his research team (see, Domberger, Hall and Li 1995; Hilvert 1994), have found that service quality is often improved with outsourcing.

Adopting a more strategic context for discussing the advantages of outsourcing, 26 (41%) sources maintained that outsourcing allows the organisation to better focus on its core activities by outsourcing peripheral and non-core functions.

Improvements in competitiveness were cited in 23 (36%) lists. Internal to the organisation, competitiveness can be improved by outsourcing unproductive functions, and sometimes merely the threat of outsourcing can lead to improvements in in-house service provision and competitive ability. External to the organisation, outsourcing encourages competition among contractors and can lead to more competitive market pricing for goods and services.

Over 34% of documents content analysed pointed to increased flexibility resulting from outsourcing. In most instances, flexibility referred to the organisation's capacity to provide, modify, restructure or cease certain activities more easily, by virtue of having outsourced those activities. The flexibility gained through outsourcing also enables public sector organisations to more easily redefine requirements over time to keep apace of technological and other changes in the environment (Harris 1996).

Two related categories, both dealing with the use and disposition of assets are reduction in or redeployment of assets, appearing in 20 (31%) lists, and access to newer equipment and technology, cited by 16 (25%) sources. Reduction in or redeployment of assets is enabled through outsourcing because contractors provide the staff and tangible assets, such as equipment, needed for performing a service. Similarly, contractors specialising in providing a particular type of service may be more likely to have newer
equipment and technology to support that service, compared to a public sector organisation providing a much broader range of services with scarce resources. Road resealing or waste collection contractors, for example, often have better equipment and technology for carrying out these tasks than a typical local government organisation which is also charged with providing other services ranging from child health care, to public libraries, to parks and gardens. IT outsourcing also exemplifies the comparative advantage of the specialist contractor over in-house provision. In particular, the specialist contractor is able to spread the cost of newer equipment and technology over the variety of organisations they service, while the in-house provider has to bear the entire cost. The contractor can thus benefit and afford such equipment and technology by enjoying economies of scale, and aggregating uncorrelated demands (Williamson 1981).

Risk reduction, cited by 13 (20%) literature sources, can result from the shifting of risk and liability from the organisation to the contractor, or through sharing risk with the contractor. The ability to reduce or downsize the organisation’s workforce through outsourcing was also stated as a reason for or benefit of outsourcing by 20% of the sample.

Just as physical assets can be reduced or redeployed within the organisation after having outsourced particular functions or services, reductions in or re-allocations of management’s load may also be enabled through outsourcing. This can come about by shifting day to day control of service provision out of the organisation, leaving management additional capacity to concentrate on other areas. This benefit was mentioned in 12 (19%) sources sampled.

Establishment of costs, also cited in 19% of the literature analysed, has a number of dimensions. It referred, in general, to the ability to establish internal or in-house costs for the provision of services. The establishment of such costs can result from consideration of the outsourcing option, which prompts the quantification of existing in-house costs, and enables the determination of benchmark and target costs. Assessment of the potential of outsourcing also results in organisations accessing external market prices, and engaging in market testing (Lapsley, Llewellyn & Mitchell 1994), which provides cost information for comparison with in-house costs.
Coping with activity fluctuations has multiple, related meanings. Firstly, it can refer to coping with seasonal variations in activity. Secondly, it can mean coping with activity levels which vary from time to time, but which might not follow a seasonal pattern. Lastly, it can include outsourcing on an ad hoc, one-off or one-time basis, for example in providing staff and resources to undertake a special project. A little over 17% of sources provided this reason.

Political reasons for outsourcing predominantly relate to government policy, such as that contained in the Hilmer Report (1993), and which encourages or necessitates outsourcing by public sector organisations. Eight sources (12.5%) cited this reason. Sometimes such policy is in the form of recommendations, while at other times it is mandated by legislation.

The ‘services to consumers’ category includes citations of benefits and advantages of outsourcing such as being better able to respond to consumers, and providing greater consumer satisfaction. Only 7 (11%) sources mentioned this benefit.

Listed by only 5 – 10% of sources studied, and therefore relatively insignificant, were eight categories, including; greater managerial expertise, improved incentives and performance measurement, increased accountability, encouragement of innovation, tighter financial controls and improved accounting information, avoidance of constraints, greater control and better management, and clearer service standards.

**Discussion**

A number of similarities were noted in comparing the results of this study with the content analysis of IS outsourcing benefits by Altinkemer, Chaturvedi and Gulati (1994). Comparable results for both studies are presented in Table A1.3. Note that Altinkemer, Chaturvedi and Gulati (1994) used only 9 categories, while 24 largely independent categories were developed in the current research.
Table A1.3  Comparison of content analysis study results with prior research

| Reason for or benefit of outsourcing | Altinkemer et al. study  
(n=17) | Current study  
(n=64) |
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Cost reduction/Cost savings</td>
<td>Frequency rating</td>
<td>Frequency rating</td>
</tr>
<tr>
<td>Forefront of technology/Access to newer equipment &amp; technology</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Efficiency/Improved service quality &amp; performance</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Better focus on company's core business/Strategic reasons – focus on core business</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Strategic alliances</td>
<td>4 (eq.)</td>
<td>No equivalent</td>
</tr>
<tr>
<td>Flexibility</td>
<td>5 (eq.)</td>
<td>6</td>
</tr>
<tr>
<td>Unlimited capacity</td>
<td>6 (eq.)</td>
<td>No equivalent</td>
</tr>
<tr>
<td>Technological integration</td>
<td>6 (eq.)</td>
<td>No equivalent</td>
</tr>
<tr>
<td>Transforming fixed costs to variable cost</td>
<td>6 (eq.)</td>
<td>No equivalent</td>
</tr>
</tbody>
</table>

In comparing results between the two studies, it needs to be recognised that some of the categories used by Altinkemer, Chaturvedi & Gulati (1994) are not mutually exclusive. For example, in discussing their results the authors point out that the categories of ‘unlimited capacity’ and ‘technological integration’ likely come under the umbrella of the ‘forefront of technology’ category. Despite the relative differences in sample size of the two studies, the frequency ratings for equivalent categories in the two studies are quite similar. Both studies found cost reduction to be foremost, and both found efficiency/performance factors and strategic reasons to be the third and fourth most frequently cited benefits. The only major difference relates to the frequency rating of technology, which is understandable considering that Altinkemer, Chaturvedi and Gulati (1994) focussed solely on IS outsourcing.

The reasons for or benefits of outsourcing provided in Table A1.2 also accord with the principal findings of the broad-based American Management Association survey of outsourcing (Greenburg & Canzoneri 1997) (n = 619). In that survey, as with the content analysis reported in this Appendix, cost reductions were the most frequently cited rationale for outsourcing, and quality improvements the third most frequently mentioned reason.

Results – Problems of outsourcing

Popularly held views on disadvantages or problems of outsourcing, derived from the current content analysis study are exhibited in Table A1.4.
Table A1.4 Problems & disadvantages of outsourcing

<table>
<thead>
<tr>
<th>Frequency rating</th>
<th>Problem/disadvantage</th>
<th>Number of citations (n = 40)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Increased and/or unexpected costs</td>
<td>36</td>
</tr>
<tr>
<td>2</td>
<td>Personnel considerations</td>
<td>32</td>
</tr>
<tr>
<td>3</td>
<td>Contractor corner-cutting &amp; loss of quality</td>
<td>26</td>
</tr>
<tr>
<td>4</td>
<td>Contract management &amp; monitoring difficulties</td>
<td>22</td>
</tr>
<tr>
<td>5</td>
<td>Less direct control</td>
<td>18</td>
</tr>
<tr>
<td>6</td>
<td>Dependence on a single provider</td>
<td>18</td>
</tr>
<tr>
<td>7</td>
<td>Loss of ability to innovate</td>
<td>13</td>
</tr>
<tr>
<td>8</td>
<td>Increased risk</td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td>Corruption, pay-offs &amp; illegal contracts</td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td>Reduced flexibility</td>
<td>8</td>
</tr>
<tr>
<td>11</td>
<td>Contractor unreliability</td>
<td>8</td>
</tr>
<tr>
<td>12</td>
<td>Less direct accountability</td>
<td>7</td>
</tr>
<tr>
<td>13</td>
<td>Contract specification problems</td>
<td>7</td>
</tr>
<tr>
<td>14</td>
<td>Problems in ensuring contractor performance</td>
<td>6</td>
</tr>
</tbody>
</table>

While cost saving was the most frequently cited reason for or advantage of outsourcing, increased costs, or hidden and unexpected costs is the most popularly cited problem of outsourcing, as revealed in 36 (90%) sources consulted. Cost-related problems mentioned in the literature include; inaccurate assessment of in-house costs, non-inclusion of contract monitoring costs, additional contractor costs for service level alterations, contractor cost overruns, increased costs on re-tendering, and lack of permanence of cost savings (Government Executive 1996; Harper 1997; Mitchell 1999).

The personnel considerations category principally concerns the unemployment (Ferris 1988), industrial relations (Naft 1991), and morale effects which may result when a service is outsourced: as mentioned in 80% of the literature studied.

The third most frequently cited disadvantage of outsourcing was contractor corner-cutting and loss of quality, mentioned by 26 (65%) sources sampled. In many cases, loss of quality may be the product of a cost/quality trade-off.

The management, monitoring and supervision of contracts and contractors were cited as problematic in 22 (55%) sources. Difficulties encountered in contract monitoring for the public sector can include the determination and use of reliable methods of inspection and supervision, and the development of useful performance monitoring indicators and benchmarks (Rehfuss 1990; Hall & Rimmer 1994).
When an activity is outsourced, control of the day to day operation of the activity inevitably shifts to the contractor, thus reducing the control an organisation can exercise. Lack or loss of control also relates to contract management and monitoring difficulties, and can be a cause of loss of quality. The problem of loss of direct control appeared in 18 (45%) sources within the sample.

Dependence on a single provider or contractor can come about from a lack of competition in the market for the provision of a particular good or service, or geographic isolation. Of sources studied, 18 (45%) listed this problem. This contrasts with the finding, discussed earlier, that outsourcing improves contestability and competitiveness.

Loss of ability to innovate in an organisation, once services were contracted-out, was cited in 13 (32.5%) of the articles and reports analysed. Generally this loss comes about through reduction if in-house intellectual capital, skills and specialist expertise.

While the content analysis of reasons for and advantages of outsourcing showed that around 20% of sources contend that outsourcing reduces and shares risk, 25% of literature analysed contended that outsourcing can actually increase risk. Reasons which may explain why risk increases include internal control difficulties arising from the added complication of long term contractual arrangements (ARIMA 1999), vicarious liability for contractors’ actions, and tax risks associated with the application of GST to public sector outsourcing contracts (Barrett 1999). A small scale US study of IT managers (n = 14) supports the proposition that risk increases with outsourcing (Peak 1994). The study reported that while all firms outsourced in an effort to reduce costs, they nevertheless perceived outsourcing to be a net risk increasing activity.

Precisely 20% of sources highlighted the ethical and legal issues that can result from malversation in public office, such as corruption, pay-offs and illegal contracts. In the last decade, lack of probity in Australian public sector outsourcing has been the subject of a number of ICAC reports (1991a, 1991b, 1992, 1993, 1995; O'Keefe 1997).

Also listed in 20% of the literature analysed was the problem of reduced flexibility resulting from the restrictions that apply under outsourcing contracts. The organisation’s flexibility to terminate, alter or upgrade services can be diminished, and
contractors can also lack flexibility in their capacity to accommodate or adapt to changed requirements.

Contractor unreliability, mentioned in 8 (20%) sources, is simply a contractor's inability to provide appropriate services as and when required.

Reduced direct accountability was named as a problem in 7 (17.5%) of the lists consulted. Lessened accountability results from shifting authority, responsibility, and therefore accountability for a service from the organisation to the contractor. While it is possible that outsourcing can enhance accountability (Rimmer 1998), lack of accountability and transparency in Australian public sector outsourcing activities has been raised by commentators and government bodies (see, Botsman 1995; Bromley 1997; Hazell 1997; Mulgan 1997).

Contract specification problems, also mentioned in 17.5% of sources sampled, reflect the difficulties organisations may face in accurately and specifically identifying required services and service standards.

Lastly, problems in ensuring contractor performance, while similar to the category of contractor unreliability, are more generally concerned with inability to assess and measure contractor performance, rather than with the actual performance of the service. This category is therefore more akin to and probably overlaps the contract management and monitoring difficulties problem discussed earlier. The least number of literary sources (15%) cited problems in ensuring contractor performance.

**Findings**

The results of the content analysis of literature accord with general impressions gained from the major literature review described in Chapter 2. In particular, the content analysis study affirmed the predominance of the cost savings objective. The study has also identified a large number of other reasons for or objectives of outsourcing, as well as several disadvantages of outsourcing. In analysing the literature a wide range of variables were discovered, and it was possible to determine the basic nature of many of the constructs underlying these variables. The study produced results and frequency ratings largely consistent with those of other researchers.
Literature content analysed: References


Centre Collected Papers No. 1, (ed.) J. Coulter. University of New South Wales: Kensington, NSW.


Walsh, S. (1997b). Outsourcing your information systems and IT activities. Management Accounting in Focus, 6(3), 4-5.


Appendix 2

Depth interview instrumentation
Questions/Instrumentation for individual depth interviews

Demographic Information
1. Date of Interview
2. Name
3. Age [question is voluntary]
4. Qualifications
5. Current Position
6. Current Employer Organisation
7. Industry
8. Classification of Employer Organisation (GBU, Council etc.) [elaborate & provide examples for participant]
9. Level of Management – Operating/Middle/Executive [define each level]
10. Previous Employment – organisation/industry

Interviewee’s Background in the Public Sector
11. Years working in public sector
12. Years of public sector outsourcing experience in any role and in outsourcing decisions of any type
13. Exposure to outsourcing decisions in current organisation – role & number of years
14. Organisational involvement or personal experience, over the last 5 years, in the following activities:
   • User-pays systems (fees & charges) [elaborate]
   • Load shedding [elaborate]
   • Privatisation [elaborate]
   • Subject to private competition for the first time
   • Alternative delivery of services (other than outsourcing) (eg. community or volunteer operation)
Outsourcing - Basics

15. What do you understand by the term 'outsourcing' or 'contracting out'?  

16. Have you heard of Compulsory Competitive Tendering (CCT)?  
   *If NO, go to Q17.*  
   If YES, go to Q16a.  

16a. What does CCT mean to you?  

16b. Is your organisation currently bound or likely to become bound by  
   CCT legislation?  
   *If NO, go to Q 17.*  
   If YES, go to Q 16 c.  

16c. What effect does, or would, application of CCT have on your  
   organisation? What are the benefits & disadvantages for the  
   organisation from your perspective and from other perspectives?  

17. What do YOU think is the major reason for or benefit/advantage of  
   outsourcing?  

18. What do you think is your organisation's/management's view on the  
   major reason for or benefit/advantage of outsourcing? How are  
   outsourcing decisions made? (Elicit procedural & behavioural  
   descriptions). What documentation is produced within the organisation  
   to support outsourcing decisions before and after the fact? (Eg. feasibility  
   study, contract, transition plan, review audit).  

19. Other than the benefit/s you've just mentioned, look at the following list  
   (Attachment A) of claimed benefits & advantages of outsourcing. Do any  
   of these points concern or interest you? Are there any you strongly  
   agree or disagree with? How important are these factors in making  
   outsourcing decisions for you and in your organisation in general?  
   *(Show Attachment A to participant & clarify item meanings)*  

20. What do YOU think is the major problem or disadvantage of outsourcing?  

21. What do you think is your organisation's/management's view on the  
   major problem or disadvantage of outsourcing?  

22. Other than the disadvantage/s you've just mentioned above, look at the  
   following list (Attachment B) of supposed problems & disadvantages of  
   outsourcing. Do any of these points concern or interest you? Are there  
   any you strongly agree or disagree with? How important are these  
   factors in making outsourcing decisions? How do these factors rank or  
   relate to those discussed earlier (from Q 19)? Are cost factors at least as  
   important or more important alone, than all the other factors you've  
   identified?  
   *(Show Attachment B to participant & clarify item meanings)*
Outsourcing – Issues

Reasons & Aims

23. Which is more important for public sector organisations – achieving social & service objectives or minimising costs? Are there any other important objectives?

24. Is it possible to achieve both/all objectives by outsourcing?

TCE

25. Which services or types of services are the best candidates for outsourcing? Why?

26. If assets very specific to a particular service are required, would you consider outsourcing that service? (Asset Specificity) [elaborate]

27. If you have a task or service which is ambiguous or difficult to perform, would you be more or less inclined to consider outsourcing for that task or service? (Performance Ambiguity) [elaborate]

Costing Systems in General

28. How good is your organisation’s costing system in general? Do you know what each of your functions costs? Can you cost your products and services? Can you cost an individual unit of a product or service?

29. Are the discovery costs of getting better costing info high or low? [elaborate]

30. Are the error costs of your costing system high or low? [explain & elaborate]

31. Does your organisation use ABC – does it apply this in making outsourcing decisions? Is it useful?

Costing for Outsourcing Decisions

32. Does your organisation compare the cost of outsourcing to the cost of in-house delivery?

33. Does your organisation use a prescribed method for costing? Departmental policy or internal costing guidelines?

34. What costing base/s are used? Full v. avoidable cost? How is depreciation handled? What about common costs and corporate level overheads and governance costs?

359
35. Does your organisation use short-term or long-term costs in outsourcing calculations?

36. Are DCF or NPV methods ever applied for outsourcing decision-making?

37. Are transaction costs (search, transition & monitoring costs) explicitly considered in the analysis?

**Evaluating Outsourcing Decisions**

38. Do you evaluate the cost effectiveness and cost savings of outsourcing decisions after the fact? If so, how?

39. Have you ever found additional costs attached to outsourcing only after having outsourced ie. cost overruns?

40. Have you ever found that cost saving were not made, but were unable to reverse the decision/s?

**Regional Themes:**

41. Do you have any thoughts about the contribution to regional economies of outsourcing by your organisation or by other public sector organisations?

42. Is outsourcing important or likely to become important, from an economic standpoint, for rural and regional communities?

43. Are the potential cost savings from outsourcing likely to be more or less for regional organisations compared to their metropolitan counterparts?

44. Is there less choice and availability of contractors in regional areas?
Potential Benefits & Advantages of Outsourcing

Cost savings

Flexibility

Greater managerial expertise

Avoidance of managerial & policy constraints

Encourages innovation

Improves competitiveness

Important when complex and technical services are required

Necessary for political reasons

Reduces and shares risk

Services are better quality

Improves incentives and performance measurement

Provides newer equipment & technology

Important for market testing & benchmarking

Provides greater responsiveness to customers & greater customer satisfaction

Service standards are clearer

Reduces management's load

Provides tighter financial controls & improves accounting information

Provides greater management control

Cheaper labour

Enables reduction in investment in physical assets
Potential Problems & Disadvantages of Outsourcing

Unemployment & labour relations problems
Less direct control & accountability for services
Corruption, payoffs & illegal contracts
Costs more – no savings
Contractor corner-cutting & loss of quality
Dependence on a single provider
Loss of ability to innovate
Contractor cost overruns
Problems of ensuring contractor performs appropriately
Less flexibility
Greater business risk
Appendix 3

Survey questionnaire covering letter
1 October 1999

Dear Public Sector Manager,

Following the release of the Australian Industry Commission’s groundbreaking report on *Competitive Tendering and Contracting by Public Sector Agencies*, the Minister for Finance announced that public sector managers would be “required to systematically review their responsibilities and assess the cost and effectiveness of those activities” (December 11, 1996).

I am currently undertaking an academic program of research on outsourcing (contracting-out) in the Australian public sector. The objective of the research is to provide information to public sector managers, such as yourself, on factors relevant in making outsourcing decisions and which will be useful to you in benchmarking your organisation’s outsourcing activities against those of other public sector organisations. In order for this information to be valuable and comprehensive, it is vital that a large number and range of managers respond to the attached, anonymous, survey questionnaire. You can agree to participate in this research by completing the questionnaire.

If you would like to receive a copy of the Executive Summary of results of this survey you can request them via e-mail to jbisman@csu.edu.au or facsimile (02) 63384405.

Your response to the questionnaire will remain strictly confidential. You are not required to provide your name, or that of your organisation, in order to complete the questionnaire and the data collected will be reported only in aggregated form. It should take about 10-15 minutes to complete the questionnaire. Could you please return your response, in the enclosed, reply prepaid envelope, by 29 October, 1999.

![This project has been approved by Charles Sturt University's Ethics in Human Research Committee. If you have any complaints or reservations about the ethical conduct of this project, you may contact: The Executive Officer Ethics in Human Research Committee The Grange Charles Sturt University Bathurst NSW 2795 Tel: (02) 63 384 187 Fax: (02) 63 384 833 Any issues you raise will be treated in confidence and investigated fully and you will be informed of the outcome.](image)

Many thanks for your time and co-operation,

Jayne Bisman
Lecturer in Accounting
Appendix 4

Survey questionnaire follow-up letter
27 October 1999

Dear Public Sector Manager,

Recently, I sent you a survey questionnaire concerning outsourcing in the public sector. If you have already responded to that questionnaire, your input has been appreciated, and you can disregard this letter.

If, however, you have not yet returned the questionnaire, can I ask that you please consider doing so. The more responses that are received, the more valid the data collected, and the more useful the results and findings will be to you, and other public sector managers, in evaluating outsourcing decisions and benchmarking your organisation’s outsourcing activities.

If you did not receive, or have misplaced the questionnaire, please feel free to contact me and a questionnaire will be sent to you. You can contact me to request a survey questionnaire via:

- e-mail to jbisman@csu.edu.au
- phoning Mrs Dale Smith, School of Accounting Secretary, on (02) 63 384 233 or by facsimile (02) 63 384 405
- post to:

  **Jayne Bisman, Lecturer in Accounting**
  School of Accounting C2-1
  Charles Sturt University
  BATHURST NSW 2795

Please note that your response to the questionnaire will remain strictly confidential. You are not required to provide your name, or that of your organisation, in order to complete the questionnaire and the data collected will be reported only in aggregated form. It should take about 10-15 minutes to complete the questionnaire.

I look forward to receiving your response.


Jayne Bisman
Lecturer in Accounting
Appendix 5

Survey questionnaire
Outsourcing Survey Questionnaire

For the purposes of this survey questionnaire, “outsourcing” is defined as: contracting for the provision of a service or good, or execution of a task, which was previously undertaken in-house, to a third party to perform on the organisation’s behalf.

The following questions relate to outsourcing decisions and activities from the perspective of your organisation, rather than your personal point of view. Later in the questionnaire (Questions 13 to 15) you will have an opportunity to express your personal opinions.

1. Does your organisation outsource for services from independent providers or contractors? (Place a tick in the most appropriate box. Select one option only).
   
   Yes (Go to next question)
   
   No (Go to Q. 13)
   
   Don’t know (Go to Q. 13)

2. What types of services does your organisation procure through outsourcing? (Please describe in the space provided).
   
   ………………………………………………………………………………………………………………………………………………………………………
   
   ………………………………………………………………………………………………………………………………………………………………………
   
   ………………………………………………………………………………………………………………………………………………………………………

3. Why does your organisation outsource for these particular types of services? (Please describe in the space provided).
   
   ………………………………………………………………………………………………………………………………………………………………………
   
   ………………………………………………………………………………………………………………………………………………………………………
   
   ………………………………………………………………………………………………………………………………………………………………………

4. What is the importance, in percentage (%) terms, of each of the following factors in making outsourcing decisions in your organisation? (Provide approximate percentage figures in the spaces provided).

<table>
<thead>
<tr>
<th></th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality &amp; other customer-related factors</td>
<td>%</td>
</tr>
<tr>
<td>Cost &amp; financial factors</td>
<td>%</td>
</tr>
<tr>
<td>Contactor control &amp; performance factors</td>
<td>%</td>
</tr>
<tr>
<td>Staffing &amp; labour-related factors</td>
<td>%</td>
</tr>
<tr>
<td>Other factor/s (please specify below)</td>
<td>%</td>
</tr>
<tr>
<td>Total of all factors</td>
<td>100%</td>
</tr>
</tbody>
</table>
5. Listed below are a number of statements concerning the actual practice of costing for outsourcing decisions applied in your organisation. For each statement indicate how often the practice is followed in your organisation, where:

1 = Always  
2 = Often  
3 = Sometimes  
4 = Rarely  
5 = Never  
6 = Don’t Know

(Circle your preferred response for each statement).

<table>
<thead>
<tr>
<th>In making an outsourcing decision in my organisation:</th>
<th>ALWAYS</th>
<th>OFTEN</th>
<th>SOMETIMES</th>
<th>RARELY</th>
<th>NEVER</th>
<th>DONT KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current costs of in-house service provision are compared to contractors' bid prices</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>In-house avoidable costs are compared to contractors' bid prices</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Long-term costs of in-house service provision are compared to current and future costs of using contractors</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>An allocation of general organisation overhead and governance costs is added to the in-house, direct cost of continued service provision</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>The cost of continued in-house provision of a service is determined using an accrual accounting basis</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>The full cost of continued in-house provision of a service is compared to contractors' bid prices</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>The cost of continued in-house provision of a service is determined using a cash basis</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>A discounted cash flow (DCF) or net present value (NPV) technique is used</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>The cost of continued in-house provision of a service is determined using activity-based costing (ABC)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>The costs of searching for appropriate contractors are explicitly considered</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Potential transition costs in shifting from in-house provision of a service to outsourcing for the service are determined and formally considered</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>The future costs of monitoring contractors' performance and compliance with contract specifications are determined and formally considered</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
6. After having outsourced for services, how often does you organisation make formal evaluations of the cost effectiveness (cost savings or cost increases) of those outsourcing decisions? (Place a tick in the most appropriate box. Select one option only).

Always (Go to next question)
Often (Go to next question)
Sometimes (Go to next question)
Rarely (Go to next question)
Never (Go to Q. 8)
Don’t Know (Go to Q. 8)

7. Which of the following most frequently reflects the outcome of the formal evaluations of cost effectiveness of outsourcing decisions in your organisation? (Place a tick in the most appropriate box. Select one option only).

Costs increased after outsourcing
Costs decreased after outsourcing
Costs remained the same after outsourcing

8. What kinds of evidence does your organisation produce to prove if outsourcing decreases costs and/or improves efficiency for your organisation? (Please describe in the space provided).

..............................................................................................................................
..............................................................................................................................
..............................................................................................................................

9. Overall, which of the following best describes your current employer organisation’s adoption of outsourcing? (Place a tick in the most appropriate box. Select one option only).

Active
Neutral
Reluctant
10. Listed below are a number of statements concerning costing systems as applied to your organisation. For each statement indicate your level of agreement where:

1 = Very Strongly Agree (VSA)  
2 = Strongly Agree (SA)  
3 = Agree (A)  
4 = Neutral (N)  
5 = Disagree (D)  
6 = Strongly Disagree (SD)  
7 = Very Strongly Disagree (VSD)

(Circle your preferred response for each statement).

<table>
<thead>
<tr>
<th>My organisation's costing system:</th>
<th>V</th>
<th>S</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>S</th>
<th>D</th>
<th>V</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can be relied upon to provide adequate and appropriate</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>information for making decisions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Can be relied upon to provide adequate and appropriate</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>information for making outsourcing decisions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would be inexpensive to improve</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11. Listed below are a number of statements concerning circumstances that might surround an outsourcing decision. For each statement indicate your level of agreement where:

1 = Very Strongly Agree (VSA)  
2 = Strongly Agree (SA)  
3 = Agree (A)  
4 = Neutral (N)  
5 = Disagree (D)  
6 = Strongly Disagree (SD)  
7 = Very Strongly Disagree (VSD)

(Circle your preferred response for each statement).

<table>
<thead>
<tr>
<th>In my organisation:</th>
<th>V</th>
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<th>A</th>
<th>N</th>
<th>D</th>
<th>S</th>
<th>D</th>
<th>V</th>
<th>S</th>
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</thead>
<tbody>
<tr>
<td>Continued in-house provision of a service is preferable to</td>
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<td>2</td>
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<td>4</td>
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<td>outsourcing when the organisation possesses assets (eg.</td>
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<td>equipment) very specific to the provision of that service</td>
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<tr>
<td>Outsourcing is preferable to continued in-house provision of a</td>
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<td>service when the service is complex or difficult to perform and</td>
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<td>Outsourcing is preferable to continued in-house provision of a</td>
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<td>service when a high degree of human technical expertise is</td>
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<td>Outsourcing is preferable to continued in-house provision of a</td>
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<td>service when there is a large number of potential contractors</td>
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<td>from which to choose</td>
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<td>Outsourcing is preferable to continued in-house provision of a</td>
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<tr>
<td>service when there is a high level of uncertainty about the</td>
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<td>future in the organisation or its environment</td>
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</tbody>
</table>
12. Does your organisation use a prescribed method of costing for outsourcing decision making? (Place a tick in the most appropriate box. Select as many options as appropriate).

Yes, as prescribed by management or internal costing guidelines
Yes, as prescribed by departmental/agency policy
Yes, as prescribed by another department/agency
Yes, as prescribed by legislation
No
Don’t know
Other (please specify)...........................................................................

The following questions relate to your personal opinions concerning outsourcing.

13. Listed below are a number of statements concerning the claimed benefits of, or reasons for, outsourcing by the public sector. For each statement indicate your level of agreement where:

1 = Very Strongly Agree (VSA)  5 = Disagree (D)
2 = Strongly Agree (SA)  6 = Strongly Disagree (SD)
3 = Agree (A)  7 = Very Strongly Disagree (VSD)
4 = Neutral (N)  (Circle your preferred response for each statement).

<table>
<thead>
<tr>
<th>For public sector organisations, outsourcing:</th>
<th>V</th>
<th>S</th>
<th>A</th>
<th>N</th>
<th>D</th>
<th>S</th>
<th>V</th>
<th>S</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improves control over the provision of services</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
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</tr>
<tr>
<td>Provides greater customer satisfaction</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>6</td>
<td>7</td>
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<tr>
<td>Enables clearer standards for service provision to be set</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Reduces cost overruns</td>
<td>1</td>
<td>2</td>
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<td>4</td>
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<td>6</td>
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<tr>
<td>Enables the benchmarking of performance against the market</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Allows for market testing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<td>6</td>
<td>7</td>
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<tr>
<td>Reduces labour relations problems</td>
<td>1</td>
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<td>6</td>
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<tr>
<td>Is useful when complex and technical services are required</td>
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<td>2</td>
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<td>6</td>
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<tr>
<td>Decreases the costs of providing services</td>
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<tr>
<td>Increases accountability</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Improves the organisation’s competitiveness</td>
<td>1</td>
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<tr>
<td>Reduces business risk</td>
<td>1</td>
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<td>Reduces management’s load</td>
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<tr>
<td>Reduces opportunities for corruption and pay-offs</td>
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<tr>
<td>Improves the ability to measure the performance of services</td>
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<tr>
<td>Provides tighter financial controls</td>
<td>1</td>
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<tr>
<td>Provides better accounting information</td>
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<tr>
<td>Increases the ability to restructure operations</td>
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<tr>
<td>Enables reduction of investment in physical assets</td>
<td>1</td>
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<td>6</td>
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<td>Enables workforce reductions</td>
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<td>Improves service quality</td>
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<tr>
<td>Provides access to better specialist expertise</td>
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<tr>
<td>Is essential for organisational development</td>
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<td>6</td>
<td>7</td>
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<tr>
<td>Is necessary to satisfy government policy</td>
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<td>6</td>
<td>7</td>
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<tr>
<td>Improves ability to innovate</td>
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<td>6</td>
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</tbody>
</table>
14. Please list what you consider to be the major problems or disadvantages of outsourcing? (Please describe in the space provided).

........................................................................................................................................
........................................................................................................................................
........................................................................................................................................

15. Overall how would you describe your personal attitude toward outsourcing? (Place a tick in the most appropriate box. Select one option only).

Positive
Neutral
Negative

16. Approximately how long, in total, have you been working in the public sector? (Specify years and/or months in the spaces provided).

............Years ........Months

17. Approximately how many years and/or months of public sector outsourcing experience have you had in any public sector organisation, in any role? (Specify years and/or months in the spaces provided).

............Years ........Months

18. What is the title (or a brief description) of your current position in your employer organisation? (Please specify in the space provided).

........................................................................................................................................

19. How would you best classify your current position in terms of level of management? (Place a tick in the most appropriate box. Select one option only).

Executive manager (responsible for establishing organisational goals, overall strategy and operating policies)
Middle manager (responsible for implementing the policies and plans of executive managers and for supervising operating managers)
Operating manager (responsible for supervision and co-ordination of the activities of operating employees)

20. In what industry is your current employer organisation? (Please specify in the space provided).

........................................................................................................................................
21. What level of government best describes your employer organisation? (Place a tick in the most appropriate box. Select one option only).

   Local government (Go to Q. 23)
   State/Territory government (Go to next question)
   Federal government (Go to next question)

22. What is your employer organisation classified as? (Place a tick in the most appropriate box. Select one option only).

   A government trading/business enterprise (GTE/GBE)
   A statutory corporation
   A self-funding organisation (other than a GTE/GTB or statutory corporation)
   A publicly or budget-funded organisation
   Other (please specify) ...........................................

23. In what state or territory is your employer organisation workplace? (Place a tick in the most appropriate box. Select one option only).

   New South Wales  Western Australia
   Victoria  Tasmania
   Queensland  Australian Capital Territory
   South Australia  Northern Territory

24. What is the approximate total annual budget for your organisation? (Please specify in the space provided).

   $..........................

25. Approximately how many people are employed in your organisation?

   ............... persons

Finally, do you have any general comments you wish to make about outsourcing and/or costing in your employer organisation, or in the public sector in general? (Please discuss in the space provided).

   ........................................................................................................
   ........................................................................................................
   ........................................................................................................
   ........................................................................................................
   ........................................................................................................

MANY THANKS FOR YOUR CO-OPERATION. YOUR ASSISTANCE WITH THIS RESEARCH IS VERY MUCH APPRECIATED.
Appendix 6

Survey questionnaire coding schema
Outsourcing Survey Questionnaire Coding Sheet

for

SPSS & Qualitative Analysis Databases

Special codes:

- Assign each completed questionnaire a Respondent Identification Number
  Variable title:
  ID

- Record missing values for relevant questions as 30, except for Qs 16 & 17, where
  missing value code is 100, and Q 25 where missing value code is 10,000.

- Record survey distribution type as 1, 2 or 3, where:
  1 Postal questionnaire
  2 E-mailed questionnaire
  3 Postal questionnaire received as follow-up to questionnaire originally e-mailed
  Variable title:
  DISTRIB

- Record week response received as 1, 2, 3, 4, OR 5, where:
  1 Week 1
  2 Week 2
  3 Week 3
  4 Week 4
  5 Week 5 or later
  Variable title:
  WEEK

Question 1 – All respondents to answer
Record answer as 1, 2, OR 3, where:
1 Yes
2 No
3 Don't know

Variable title:
OUTSOURC

Questions 2 to 12 – Only outsourcers to answer.

Question 2
In SPSS record answers as numeral (1 to 10) representing number of services
mentioned in response. A code of 10 equals ten or more service types.

Variable title:
SERVTYPE
Then code as service types and record verbatim responses in database for qualitative analysis using the CTC Consultants (1996) Questionnaire categories and codes. See Coding Attachment 1.

Variable title:
SERVT1 to SERVT19. Note that multiple responses, per case, are applicable.

**Question 3**
Using SPSS, record answers as numeral (1 to 10) which represents the number of reasons given by the respondent.

Variable title:
REASON

Record verbatim responses in database for qualitative analysis and code reasons as:

Variable title:
REAS1 to REAS26. Note that multiple responses, per case, are applicable.

See Coding Attachment 2 for details of the categories and codes.

**Question 4**
Record % figures from zero to 100 (as decimals) for each factor & record nature of each OTHEFACT

Variable titles:
QUALFACT Quality & other customer-related factors
COSTFACT Cost & financial factors
CONTFACT Contractor control & performance factors
STAFFFACT Staffing & labour-related factors
OTHEFACT Other factors

**Question 5**
Record answers as 1, 2, 3, 4, 5 OR 6 for each statement, where:
1 Always
2 Often
3 Sometimes
4 Rarely
5 Never
6 Don't know

Variable titles:
CURRCOST
AVOICOST
LONGCOST
ALLOCOST
ACCRBASE
FULLCOST
CASHBASE
DCFTECH
ABCCOST
SRCHCOST
TRANCOST
MONCOST
**Question 6**
Record answer as 1, 2, 3, 4, 5 OR 6, where:
1. Always
2. Often
3. Sometimes
4. Rarely
5. Never
6. Don't know

Variable title:
FORMEVAL

**Question 7**
Record answer as 1, 2 OR 3, where:
1. Costs increased after outsourcing
2. Costs decreased after outsourcing
3. Costs remained the same after outsourcing

Variable title:
EVALOUTC

**Question 8**
In SPSS, record answer as numeral (0 to 10) representing the number of items of evidence mentioned by the respondent. A code of 0 represents a specific response of 'Nil', 'No' or 'None' and not a missing value. A code of 10 equals ten or more items of evidence. Codes 1 through to 9 equal one through to nine items of evidence.

Variable title:
EVIDENCE

Record verbatim answers in the database for qualitative analysis and code responses as:

Variable title:
EVID1 to EVID13. Note that multiple responses, per case, are applicable.

See Coding Attachment 3 for details of the categories and codes.

**Question 9**
Record answer as 1, 2 OR 3, where:
1. Active
2. Neutral
3. Reluctant

Variable title:
ORGADOPT
Question 10
Record answers as 1, 2, 3, 4, 5, 6 OR 7 for each statement, where:
1 Very strongly agree
2 Strongly agree
3 Agree
4 Neutral
5 Disagree
6 Strongly disagree
7 Very strongly disagree

Variable titles:
COSTINFO
OUTSINFO
INEXINFO

Question 11
Record answers as 1, 2, 3, 4, 5, 6 OR 7 for each statement, where:
1 Very strongly agree
2 Strongly agree
3 Agree
4 Neutral
5 Disagree
6 Strongly disagree
7 Very strongly disagree

Variable titles:
ASPECIF
COMPLEX
HSPECIF
NUMBERS
UNCERT

Question 12
Record answers as 1, 2, 3, 4, 5, 6 OR 7, & record nature of each 'other' response, where:
1 Yes, as prescribed by management or internal costing guidelines
2 Yes, as prescribed by departmental/agency policy
3 Yes, as prescribed by another department/agency
4 Yes, as prescribed by legislation
5 No
6 Don’t know
7 Other

Variable title:
PREMETH
Questions 13 to 25 – All respondents to answer

Question 13
Record answers as 1, 2, 3, 4, 5, 6 OR 7 for each statement, where:
1 Very strongly agree
2 Strongly agree
3 Agree
4 Neutral
5 Disagree
6 Strongly disagree
7 Very strongly disagree

Variable titles:
CONTROL
SATISFAC
STDS
OVERRUN
BENCH
MKTTTEST
LABOUR
COMPTech
REDUCOST
ACCOUNT
COMPETIT
RISK
MGTLOAD
CORRUPT
MEASPERF
FINCTRLS
ACCINFO
RESTRUCT
PHYSICAL
WORKREDU
EXPERT
DEVELOP
POLICY
INNOVATE

Question 14
Using SPSS, record the number (0 to 10) of problems provided by the respondent. A code of 0 is only recorded when a respondent specifically states there are no problems. If left blank, a missing value code is applied. A code of 10 equals ten or more problems. Codes 1 through to 9 equal one through to nine problems.

Variable title:
PROBLEM

Record responses verbatim in qualitative analysis database and code as:

Variable title:
PROB1 to PROB19. Note that multiple responses, per case, are applicable.

See Coding Attachment 4 for details of the categories and codes.
Question 15
Record answer as 1, 2 OR 3, where:
1 Positive
2 Neutral
3 Negative

Variable title:
PERSATT

Question 16
Record answer in years & months, with months expressed in decimal form, where:
1 mth 0.08
2 mths 0.17
3 mths 0.25
4 mths 0.33
5 mths 0.42
6 mths 0.50
7 mths 0.58
8 mths 0.67
9 mths 0.75
10 mths 0.83
11 mths 0.92

Variable title:
PSEMP  Note that missing value code for this question = 100.

Question 17
Record answer in years & months, with months expressed in decimal form as given for previous question.

Variable title:
OUTEMP  Note that missing value code for this question = 100.
Question 18
Use the following categories and codes (Table A6.1), developed based on information provided in completed questionnaires:

<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Finance Manager</td>
<td>Chief Financial Officer, Finance Director, Financial Controller</td>
</tr>
<tr>
<td>2</td>
<td>CEO/GM</td>
<td>Chief Executive Officer, General Manager, Deputy Chief Executive Officer, Acting General Manager</td>
</tr>
<tr>
<td>3</td>
<td>Corporate Services Manager</td>
<td>Business Manager, Corporate Services Manager, Corporate Development Manager, Economic Development Manager, Corporate Affairs Executive</td>
</tr>
<tr>
<td>4</td>
<td>Competition/Contracts Manager</td>
<td>Competition Manager, Contracting Manager, Procurement/Inventory Manager, CCT Manager</td>
</tr>
<tr>
<td>5</td>
<td>Technical Services Manager</td>
<td>Technical Services Manager, Town Planner, Engineering Manager</td>
</tr>
<tr>
<td>6</td>
<td>Human Resources Manager</td>
<td>Human Resources Manager, Human Resources Director</td>
</tr>
<tr>
<td>7</td>
<td>Other</td>
<td>Manager, Team Leader, Administration Officer, Administration Manager</td>
</tr>
</tbody>
</table>

Variable title: JOBTITLE

Question 19
Record answer as 1, 2 OR 3, where:
1   Executive manager
2   Middle manager
3   Operating manager

Variable title: MGTLEVEL
Question 20
Use the following categories and codes (Table A6.2) developed from information provided in completed questionnaires:

<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Local government</td>
</tr>
<tr>
<td>2</td>
<td>Finance, insurance &amp; associated regulation</td>
</tr>
<tr>
<td>3</td>
<td>Education &amp; training</td>
</tr>
<tr>
<td>4</td>
<td>Health &amp; welfare</td>
</tr>
<tr>
<td>5</td>
<td>Agriculture &amp; primary industries</td>
</tr>
<tr>
<td>6</td>
<td>Corrective services, justice &amp; legal</td>
</tr>
<tr>
<td>7</td>
<td>Culture</td>
</tr>
<tr>
<td>8</td>
<td>Transport</td>
</tr>
<tr>
<td>9</td>
<td>Energy/Electricity</td>
</tr>
<tr>
<td>10</td>
<td>Tourism, sport &amp; recreation</td>
</tr>
<tr>
<td>11</td>
<td>Consulting (Business &amp; management)</td>
</tr>
<tr>
<td>12</td>
<td>Maritime</td>
</tr>
<tr>
<td>13</td>
<td>Water &amp; sewerage</td>
</tr>
<tr>
<td>14</td>
<td>Infrastructure/Construction &amp; building</td>
</tr>
<tr>
<td>15</td>
<td>Information &amp; registry</td>
</tr>
<tr>
<td>16</td>
<td>Information technology &amp; telecommunications</td>
</tr>
<tr>
<td>17</td>
<td>Storage &amp; warehousing</td>
</tr>
</tbody>
</table>

Variable title: INDUSTRY

Question 21
Record answer as 1, 2 OR 3, where:
1    Local government
2    State/Territory government
3    Federal government

Variable title: GOVLEVEL

Question 22
Information from this question and the first option of Question 21 to be recorded in a number of forms.

Step 1: Record answer to Question 22 as 1, 2, 3, 4 or 5, where:
1    GTE/GTB
2    Statutory corporation
3    Self-funding organisation (other than 1 or 2 above)
4    Publicly or budget-funded organisation
5    Other
6    Local government (from Q 21)

Step 2: Record nature of each “Other” organisation type, or if sufficient information provided reclassify into appropriate category

Variable title: ORGFORM
Step 3: Record answer to Questions 21 & 22 as 1, 2, 3 or 4, where:
1   Local government
2   GTE/GTB, statutory corporation, & other self-funding organisations
3   Publicly or budget-funded organisation
4   Other, which cannot be reclassified into appropriate category

Variable title: ORGTYPE

**Question 23**
Record answer as 1, 2, 3, 4, 5, 6, 7 OR 8, where:

1   NSW
2   VIC
3   QLD
4   SA
5   WA
6   TAS
7   ACT
8   NT

Variable title: STATE

**Question 24**
Record answer in dollars (no decimal places)

Variable title: TOTBUDG

**Question 25**
Record answer in number of persons. Allow decimal places, as some respondents will provide full-time equivalent (FTE) staff numbers.

Variable title: STAFFNO

**Comments** (Question 26)
In SPSS record answer as 0 OR 1, where:

0   no response
1   response

Record actual responses verbatim in database and analyse text of these responses.

Variable title: COMM
Coding Attachment 1

Table A6.3 on the following page lists the codes, service categories and service examples provided and used in the CTC Consultants (1996) Annual Contracting Survey Questionnaire. The table also includes service examples developed and derived from responses to survey questionnaires forming part of the research reported in this PhD thesis.

In the instructions for the CTC Consultants (1996) questionnaire, respondents were advised that management services relating to a particular industry should be classified in that industry's category. However, if the management services were of a generic nature, respondents were requested to categorise them as 'Business Services' (Code 2). Presumably, in the absence of further instructions, management services relating to, say, health and welfare services, would be categorised as 'Health & Welfare Services' (Code 7), rather than 'Business Services' (Code 2).

The CTC Consultants' service categories have been utilised for the purposes of analysing data presented in this thesis. However, there are some distinct differences, on a general level, and in terms of specific categorisations between the CTC Consultants research and the current research.

Firstly, for the current research, while all of the CTC Consultants' categories were used, some specific service types were not utilised, as there were no responses received relating to these types of services.

Secondly, the CTC Consultants (1996) questionnaire was aimed at obtaining data concerning competitive tendering and contracting in the NSW government. The focus of the current research is wider, including all levels of government, in all states and territories, and for all types of public sector organisations. Some new service types and categories had to be added to account for the broader ambit of the current research. In total, three (3) new categories were added; being water provision services, construction services, and an 'other' category for very infrequently mentioned services. The CTC questionnaire specifically excluded construction services. However, these have been added in for the purposes of the current research for two major reasons. Firstly, many local governments, which previously engaged in road and building construction, appear to be outsourcing for these projects. As the relevant CTC studies do not concern local government, it was necessary to add this category. Water provision services also concerned the local government sample. Secondly, the introduction of Public/Private Sector Infrastructure Arrangements (PPS) for the financing, construction and/or operation of major infrastructure assets (such as hospitals and motorways) involve a form of outsourcing by the government in relation to major construction projects (Peirson & McBride 1996). A number of agencies and authorities comprising the survey sample let contracts to the private sector under such arrangements.

Thirdly, the CTC Consultant's (1996) questionnaire does not define or delineate what is meant by the terms 'competitive tendering and contracting', as used in the questionnaire. While the results of the CTC research are written in such a way as to indicate that contracting is for tasks or services previously conducted in-house, this is not made clear in the questionnaire. It would therefore not be unexpected to find that organisations responding to that survey had included details of contracts for tasks and services that had never been conducted in-house. To remedy this oversight, the questionnaire used in the current research commenced with a definition of the term 'outsourcing' (as defined in Chapter 1 – also see the Survey Questionnaire reproduced in Appendix 5). This definition was provided to inform respondents that 'outsourcing' is not synonymous simply with 'contracting' or purchasing, and therefore to ensure that responses were relevant.
Fourthly, the CTC Consultants (1996) questionnaire required survey participants to code service categories, as well as provide some written details on the types of services being contracted. For the purposes of the research reported in this thesis, classification of services has been made by the researcher on the basis of written, open-ended responses provided by survey participants to Question 2. For greater control and consistency in the assignment of codes, respondents were not required to code services.

Lastly, the CTC Consultants (1996) questionnaire excluded a number of contract types from data collection. The questionnaire instructions require participants to exclude small dollar value contracts, for example contracts or groups of contracts worth less than $50,000 over the contract term. The questionnaire also asks that respondents not include contracts for consultancy services. These consultancy services are excluded, according to the questionnaire instructions, for no other reason than because the NSW Public Employment Office conducts an annual survey of such contracts. The questionnaire used for the research reported in this thesis, did not contain this exclusion requirement.

<table>
<thead>
<tr>
<th>Code</th>
<th>Service Category</th>
<th>CTC (1996) Examples</th>
<th>Examples from the thesis research</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Administrative support services</td>
<td>Court reporting, Data entry, Form processing, General administrative support, Payroll, Secretarial support</td>
<td>Cheque &amp; Invoice printing, Data processing, Payroll, Receipting, Reception, Secretarial</td>
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<tr>
<td>2</td>
<td>Business services</td>
<td>Economic studies, Employee counselling, Human resource management, Management reviews, Personnel services, Project management, Total Quality Management</td>
<td>Business planning, Business re-engineering, Consulting services (nec)*, Human resources services, Project management, Recruitment &amp; selection, Strategy development</td>
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<tr>
<td>3</td>
<td>Equipment maintenance &amp; works related services</td>
<td>Demolition, Dredging service, Drilling services, Overhaul/maintenance, Fencing, Hire of plant &amp; operator</td>
<td>Bitumen sealing, Drainage, Earthmoving, Fencing, Hire of plant &amp; operator, Road maintenance</td>
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<td>4</td>
<td>Financial services</td>
<td>Asset review, Audit, Claims analysis, Debt collection, Funds management, Insurance broking, Stock registry, Valuation services</td>
<td>Accounting, Actuarial services, Asset management, Audit, Banking, Debt management, Financial advice, Financial analysis &amp; modelling, Insurance, Investment management, Liability management, Stock registry, Valuing</td>
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<td>Food &amp; laundry services</td>
<td>Canteen services, Catering, Domestic services</td>
<td>Cafeteria, Catering</td>
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<td>6</td>
<td>Forestry services (Farming services were added)</td>
<td>Harvest &amp; delivery of service, Trail maintenance</td>
<td>Shearing, Trees management</td>
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<td>Health &amp; welfare services</td>
<td>Child care services, Medical services, Occupational health &amp; safety, Physician services, Physiotherapy, Rehabilitation</td>
<td>Aged care, Disability service provision, Half-way houses management, Home &amp; community care, Outreach services, Pathology tasks</td>
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<td>Information technology services</td>
<td>Residential care</td>
<td>Youth &amp; child services</td>
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<td>Services to grounds, reserves &amp; other public areas</td>
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</tr>
</tbody>
</table>

* nec = not elsewhere classified
Question 3 of the survey questionnaire required participants to provide written, open-ended responses concerning the reasons why their organisations outsource. The codes and categories provided in Table A6.4 below were developed on the basis of a content analysis of the literature (reported in Appendix 1), and on the basis of analysis of case study and depth interview data (see Chapter 4). Some categories were added to the findings emerging from prior steps in the research if survey respondents mentioned reasons not previously revealed. The examples for provided, for each category, were drawn directly from responses to the survey questionnaire. In addition to these examples, all responses were recorded verbatim in a database.

**Table A6.4**

<table>
<thead>
<tr>
<th>Code</th>
<th>Reason category</th>
<th>Examples from this research (verbatim)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Improvement in service provision control</td>
<td>N/A</td>
</tr>
<tr>
<td>2</td>
<td>Improvement in customer satisfaction</td>
<td>To meet community requirements</td>
</tr>
<tr>
<td>3</td>
<td>Specification of clearer service standards</td>
<td>Service definition</td>
</tr>
<tr>
<td>4</td>
<td>Reduction of cost overruns</td>
<td>N/A</td>
</tr>
<tr>
<td>5</td>
<td>Benchmarking of performance</td>
<td>N/A</td>
</tr>
<tr>
<td>6</td>
<td>Market testing</td>
<td>Market testing of services</td>
</tr>
<tr>
<td>7</td>
<td>Avoidance of labour relations problems</td>
<td>N/A</td>
</tr>
<tr>
<td>8</td>
<td>Specialist technical &amp; professional expertise required</td>
<td>Lack of internal experts</td>
</tr>
<tr>
<td>9</td>
<td>Reduction of costs/cost effectiveness</td>
<td>Price competitive</td>
</tr>
<tr>
<td>10</td>
<td>Increased accountability</td>
<td>Transparency of operations</td>
</tr>
<tr>
<td>11</td>
<td>Improvement in competitiveness</td>
<td>Generate competition</td>
</tr>
<tr>
<td>12</td>
<td>Reduction of business risk</td>
<td>Risk management</td>
</tr>
<tr>
<td>13</td>
<td>Reduction of management's load</td>
<td>N/A</td>
</tr>
<tr>
<td>14</td>
<td>Reduction in corruption &amp; pay-offs</td>
<td>N/A</td>
</tr>
<tr>
<td>15</td>
<td>Improvement in measurability of service performance</td>
<td>N/A</td>
</tr>
<tr>
<td>16</td>
<td>Tighter financial controls</td>
<td>N/A</td>
</tr>
<tr>
<td>17</td>
<td>Improved accounting information</td>
<td>N/A</td>
</tr>
<tr>
<td>18</td>
<td>Improved capacity to restructure operations</td>
<td>N/A</td>
</tr>
<tr>
<td>19</td>
<td>Reduction in or lack of physical assets</td>
<td>Reduced capital investment</td>
</tr>
<tr>
<td>20</td>
<td>Reduction of workforce</td>
<td>To reduce staff numbers</td>
</tr>
<tr>
<td>21</td>
<td>Improvement of service quality</td>
<td>Better service provision</td>
</tr>
<tr>
<td>22</td>
<td>Staffing inadequacies</td>
<td>Inability to consistently recruit</td>
</tr>
<tr>
<td>23</td>
<td>Necessity for organisation development</td>
<td>N/A</td>
</tr>
<tr>
<td>24</td>
<td>Necessity for satisfying government policy</td>
<td>CCT compliance</td>
</tr>
<tr>
<td>25</td>
<td>Innovative ability</td>
<td>Gain access to innovation</td>
</tr>
<tr>
<td>26</td>
<td>Efficiency improvement</td>
<td>Optimum utilisation, value for money</td>
</tr>
<tr>
<td>27</td>
<td>Seasonality/activity fluctuations/one-off needs</td>
<td>Needs basis hire</td>
</tr>
<tr>
<td>28</td>
<td>Focus on core business</td>
<td>Allow concentration of resources on core business</td>
</tr>
<tr>
<td>29</td>
<td>Flexibility</td>
<td>Flexibility</td>
</tr>
<tr>
<td>30</td>
<td>Other</td>
<td>Convenience, O H &amp; S issues, partnering</td>
</tr>
</tbody>
</table>
Coding Attachment 3

Question 8 of the survey questionnaire required participants to provide open-ended responses concerning the nature of evidence produced to prove if outsourcing decreases costs and/or improves efficiency. Codes and categories were developed from analysis of survey responses. The examples provided in Table A6.5 were taken directly from survey data and all responses recorded verbatim in a database.

**Table A6.5**

<table>
<thead>
<tr>
<th>Code</th>
<th>Evidence category</th>
<th>Examples from this research</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>None</td>
<td>No evidence is produced. Unaware of any evidence.</td>
</tr>
<tr>
<td>2</td>
<td>Actual outsource cost compared to prior in-house cost</td>
<td>Reporting of actual cost reductions. Actual costs in-house vs. actual outsourcing costs. Past vs. current expenditure.</td>
</tr>
<tr>
<td>3</td>
<td><em>Actual or budgeted</em> outsource cost compared to prior in-house labour cost</td>
<td>Last year's day labour cost vs current year's contract cost. Payments to contractors compared to cost of employee. Cost of outsourcing vs. cost of staff full-time.</td>
</tr>
<tr>
<td>4</td>
<td><em>Actual</em> outsource cost compared to <em>budgeted</em> outsource cost</td>
<td>Cost compliance with terms of contract. Compare outsourcing cost against tender. Cost of outsourcing compared before &amp; after. Cost comparisons to budget.</td>
</tr>
<tr>
<td>5</td>
<td><em>Budgeted</em> outsource cost compared with prior in-house cost</td>
<td>Cost comparisons prior to outsourcing. Full cost of in-house service compared to tender. Cost comparison at the time of letting.</td>
</tr>
<tr>
<td>6</td>
<td><em>Current</em> outsource cost compared with <em>future</em> outsource cost</td>
<td>Lower costs when re-tendering. Contract costs compared to new market rates.</td>
</tr>
<tr>
<td>8</td>
<td>Staffing analysis</td>
<td>Labour utilisation figures. Reduction in staff numbers.</td>
</tr>
<tr>
<td>9</td>
<td>Physical assets analysis</td>
<td>Capital items assessment. Infrastructure cost avoidance.</td>
</tr>
<tr>
<td>10</td>
<td>Comparison with benchmarking studies</td>
<td>Benchmarking with similar service providers. Benchmarking across state &amp; interstate by service category. State benchmarks. Comparisons with other councils.</td>
</tr>
<tr>
<td>11</td>
<td>Basic cost-related measures</td>
<td>Ad-hoc cost comparisons, informal, infrequent, minimal or simplistic cost analyses, financial accounting info only, audit reviews.</td>
</tr>
<tr>
<td>12</td>
<td><em>Non-cost</em> measures</td>
<td>Adherence to contract specifications, customer feedback surveys, quality assessment, productivity, delivery time analysis, absenteeism, Number of client complaints, staff surveys.</td>
</tr>
</tbody>
</table>

Coding Attachment 4

Question 14 of the survey questionnaire required participants to provide written, open-ended responses concerning their opinions on the major problems or disadvantages of outsourcing. The codes and categories provided in Table A6.6 were developed on the basis of a content analysis of the literature (reported in Appendix 1), and on the basis of analysis of interview data (see Chapter 4 and Appendix 2 for details). The categories were expanded to allow for survey respondents who mentioned problems and disadvantages not previously considered in the literature content and interview analyses. The examples provided were drawn directly from responses to the survey questionnaire. In addition to the examples, all responses were recorded verbatim in a database.
<table>
<thead>
<tr>
<th>Code</th>
<th>Problem category</th>
<th>Examples from this research</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Service provision control</td>
<td>• Outsourcing administration difficulties&lt;br&gt;• Limited control over work performance&lt;br&gt;• Loss of day to day control</td>
</tr>
<tr>
<td>2</td>
<td>Customer satisfaction/customer service</td>
<td>• Diminished ability to meet customer service obligations&lt;br&gt;• Loss of role in ensuring public interest</td>
</tr>
<tr>
<td>3</td>
<td>Specifying service standards</td>
<td>• Contract definition difficulties&lt;br&gt;• Problems of getting agreement provisions right first time</td>
</tr>
<tr>
<td>4</td>
<td>Cost overruns</td>
<td>• Potential for major cost overruns&lt;br&gt;• Extra costs</td>
</tr>
<tr>
<td>5</td>
<td>Labour relations &amp; local employment problems</td>
<td>• Reduced employment conditions&lt;br&gt;• Causes of local unemployment for rural areas</td>
</tr>
<tr>
<td>6</td>
<td>Costs</td>
<td>• High costs&lt;br&gt;• Costs go up over time&lt;br&gt;• Cost savings not sustainable</td>
</tr>
<tr>
<td>7</td>
<td>Reduction in accountability</td>
<td>• Accountability problems</td>
</tr>
<tr>
<td>8</td>
<td>Risk</td>
<td>• Risks &amp; liabilities retained in-house&lt;br&gt;• Risk if not delivered correctly</td>
</tr>
<tr>
<td>9</td>
<td>Increased management load</td>
<td>• Executive management become overworked</td>
</tr>
<tr>
<td>10</td>
<td>Corruption &amp; pay-offs</td>
<td>• Lack of business integrity&lt;br&gt;• Increased opportunities for corruption</td>
</tr>
<tr>
<td>11</td>
<td>Measurability of service performance</td>
<td>• Difficult to judge performance</td>
</tr>
<tr>
<td>12</td>
<td>Slacker financial controls</td>
<td>• Lack of cost control</td>
</tr>
<tr>
<td>13</td>
<td>Poorer accounting information</td>
<td>• Inability to calculate costs</td>
</tr>
<tr>
<td>14</td>
<td>Reduced capacity to restructure operations</td>
<td>• Long term problems because plant has been sold</td>
</tr>
<tr>
<td>15</td>
<td>Service quality</td>
<td>• Quality reduction&lt;br&gt;• Can lead to reduction in service quality</td>
</tr>
<tr>
<td>16</td>
<td>Reduced innovative ability</td>
<td>• Loss of innovative expertise</td>
</tr>
<tr>
<td>17</td>
<td>Contract management &amp; monitoring</td>
<td>• Problem ensuring contractor can meet demands&lt;br&gt;• Inadequate experience in contract management</td>
</tr>
<tr>
<td>18</td>
<td>Reduced flexibility</td>
<td>• Loss of flexibility&lt;br&gt;• Inflexibility when changes needed</td>
</tr>
<tr>
<td>19</td>
<td>Reassuming in-house provision</td>
<td>• Once decision made, ability to perform in-house is lost&lt;br&gt;• Unable to re-enter service provision</td>
</tr>
<tr>
<td>20</td>
<td>Reduction in-house expertise/knowledge</td>
<td>• Deskilling government workforce&lt;br&gt;• Loss of corporate knowledge</td>
</tr>
<tr>
<td>21</td>
<td>[unused]</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Rural/regional issues</td>
<td>• Destroys rural towns&lt;br&gt;• Problems in remote areas</td>
</tr>
<tr>
<td>23</td>
<td>Retendering difficulties</td>
<td>• Lack of continuity&lt;br&gt;• Predatory bidding</td>
</tr>
<tr>
<td>24</td>
<td>Contractors unavailable/lack of competition</td>
<td>• Monopolies through contractor buy-outs&lt;br&gt;• Lack of pool of potential contractors</td>
</tr>
<tr>
<td>25</td>
<td>Legal problems</td>
<td>• Contract termination difficulties&lt;br&gt;• Legal hassles&lt;br&gt;• No &quot;easy out&quot;</td>
</tr>
<tr>
<td>26</td>
<td>Politics/government policy &amp; legislation</td>
<td>• Governments changing goalposts&lt;br&gt;• More because of government initiative than for business reasons&lt;br&gt;• Political concerns</td>
</tr>
<tr>
<td>27-29</td>
<td>[unused]</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Other</td>
<td>• Handling unanticipated problems&lt;br&gt;• Time&lt;br&gt;• Determining what to outsource</td>
</tr>
</tbody>
</table>

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Pattern matching codes for Comment response to Outsourcing Survey Questionnaire

for

Qualitative Analysis Database

The final component of the outsourcing survey questionnaire was an optional question which asked:

‘do you have any general comments you wish to make about outsourcing and/or costing systems in your employer organisation, or in the public sector in general?’

Examining the responses, a number of common themes emerged. In general the comments made related to:

- advantages of outsourcing;
- disadvantages of outsourcing; and,
- conditions or circumstances under which outsourcing should or should not be considered.

In many cases, comments related strongly to survey questions 3, 4, 8, 13 and 14, and this was recorded where appropriate.

A series of codes were developed to help match recurrent themes or patterns in respondents’ comments. In addition to assigning comments applicable code numbers relating to themes raised, each issue was also coded and categorised as positive (+) or negative (-) (ie. favourable or unfavourable to outsourcing) based on the nature and tenor of the response. The codes used are described in Tables A6.7 & A6.8 below.

<table>
<thead>
<tr>
<th>Prime Code</th>
<th>Theme category</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Advantages of outsourcing</td>
</tr>
<tr>
<td>D</td>
<td>Disadvantages of outsourcing</td>
</tr>
<tr>
<td>C+</td>
<td>Conditions &amp; circumstances when outsourcing should be considered</td>
</tr>
<tr>
<td>C-</td>
<td>Conditions &amp; circumstances when outsourcing should not be considered</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secondary Code</th>
<th>Issue category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1+ or -</td>
<td>Control issues</td>
</tr>
<tr>
<td>2+ or -</td>
<td>Customer satisfaction/service issues</td>
</tr>
<tr>
<td>3+ or -</td>
<td>Service standard specification issues</td>
</tr>
<tr>
<td>4+ or -</td>
<td>Benchmarking issues</td>
</tr>
<tr>
<td>5+ or -</td>
<td>Market testing issues</td>
</tr>
<tr>
<td>6+ or -</td>
<td>Employment &amp; labour relations issues</td>
</tr>
<tr>
<td>7+ or -</td>
<td>Expertise issues</td>
</tr>
<tr>
<td>8+ or -</td>
<td>Cost &amp; financial issues</td>
</tr>
<tr>
<td>9+ or -</td>
<td>Accountability issues</td>
</tr>
<tr>
<td>10+ or -</td>
<td>Competition &amp; contestability issues</td>
</tr>
<tr>
<td>11+ or -</td>
<td>Risk issues</td>
</tr>
<tr>
<td>12+ or -</td>
<td>Management workload issues</td>
</tr>
<tr>
<td>13+ or -</td>
<td>Corruption &amp; probity issues</td>
</tr>
<tr>
<td>14+ or -</td>
<td>Service &amp; contractor performance measurement issues</td>
</tr>
<tr>
<td>15+ or -</td>
<td>Financial control issues</td>
</tr>
<tr>
<td>16+ or -</td>
<td>Accounting &amp; accounting information issues</td>
</tr>
<tr>
<td>17+ or -</td>
<td>Physical assets issues</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>18+ or -</td>
<td>Workforce reduction issues</td>
</tr>
<tr>
<td>19+ or -</td>
<td>Service quality issues</td>
</tr>
<tr>
<td>20+ or -</td>
<td>Staff workload issues</td>
</tr>
<tr>
<td>21+ or -</td>
<td>Government policy issues</td>
</tr>
<tr>
<td>22+ or -</td>
<td>Innovation issues</td>
</tr>
<tr>
<td>24+ or -</td>
<td>Efficiency issues</td>
</tr>
<tr>
<td>25+ or -</td>
<td>Seasonality &amp; variable workload issues</td>
</tr>
<tr>
<td>26+ or -</td>
<td>Core &amp; non-core issues</td>
</tr>
<tr>
<td>27+ or -</td>
<td>Flexibility issues</td>
</tr>
<tr>
<td>28+ or -</td>
<td>In-house resumption of service issues</td>
</tr>
<tr>
<td>29+ or -</td>
<td>Organisational knowledge issues</td>
</tr>
<tr>
<td>30+ or -</td>
<td>Rural &amp; regional issues</td>
</tr>
<tr>
<td>31+ or -</td>
<td>Retendering issues</td>
</tr>
<tr>
<td>32+ or -</td>
<td>Legal issues</td>
</tr>
<tr>
<td>33+ or -</td>
<td>Avoidance issues</td>
</tr>
<tr>
<td>34+ or -</td>
<td>Contract management issues</td>
</tr>
<tr>
<td>35+ or -</td>
<td>Balance issues</td>
</tr>
</tbody>
</table>
Appendix 7

Ethics approval documentation
Ms J Bisman  
School of Accounting  
Building C2-1  
CSU-Mitchell  

24 October 1997  

Dear Ms Bisman  

Thank you for your letter of 22 October. I’m not sure how we managed to ask you for information you had already provided, and I apologise for any inconvenience. The Ethics in Human Research Committee has approved your proposal "The role of costs in outsourcing decisions: Selected studies of public sector organisations" for the period October 1997 to November 2000.  

The protocol number issued with respect to this project is 97/086.  

You must notify the Committee immediately should your research differ in any way from that proposed.  

You are also required to complete the attached Report form and return it on completion of your research or by 31 October 1998 if your research has not been completed by that date.  

Please don’t hesitate to contact Mrs Kaye Price on telephone (02) 6338 4200 if you have any enquiries about this matter.  

Yours sincerely  

[Signature]  

Ross Chambers  
Presiding Officer  
Ethics in Human Research Committee
Appendix 8

Organisational consent proforma
INFORMATION STATEMENT FOR RESEARCH PARTICIPANTS

Researcher/Investigator: Jayne Elizabeth BISMAN
Lecturer in Accounting & Doctor of Philosophy (PhD) degree candidate

Host Institution: Charles Sturt University
Panorama Avenue
BATHURST NSW 2795

Research Project Title: The role of costs in outsourcing decisions: Selected studies of public sector organisations

Research Purposes: The research aims to investigate the factors which are important in making outsourcing (contracting-out) decisions in Australian public sector organisations. In particular, the research will attempt to explain the role of costs and costing information as a factor in making these outsourcing decisions.

Research Procedures: The research is based on case studies of outsourcing decision making in real-world Australian public sector organisations. There are a number of procedures to be followed in the research. These procedures include:

- individual and/or group interviews with personnel of public sector organisations who are involved in making outsourcing decisions;
- the review of publicly available and/or other documents from the case study organisation and which concern outsourcing activities; and,
- the observation of formal discussions and meetings which take place in the organisation and which concern outsourcing decisions.

Participant Requirements: The case study organisation will be researched on a part-time. During that time the researcher will make a number of visits (up to eighty (80) hours in total) to the organisation at mutually convenient times. Subject to the express consent of the organisation and relevant individuals, the researcher will:

- interview organisational personnel individually and/or in groups;
- collect or view, and take notes from relevant documents provided to the researcher by the organisation; and,
- be an observer at designated formal discussions and meetings.

(continued on next page)
Interviews will normally take around one to one and one half (1 to 1.5) hours of participants' time. Some individuals may be interviewed on more than one occasion. Where the express consent of an individual is obtained to do so, interviews may be audio taped.

Risks:
The nature of the research is such that participants are unlikely to suffer any risks or side effects. Participants are assured of confidentiality and anonymity (confidentiality provisions are discussed later in this Statement).

Usage of Data
The data collected during the course of the research will be used only for academic purposes. The primary purpose of the research is to provide the data necessary for writing my PhD thesis. The secondary purpose of the research is to provide the data necessary for me to write other papers suitable for presentation at conferences and publication in scholarly and professional books and journals. The data is not intended for any other use, nor will it be used for any other purpose.

Confidentiality:
Neither the organisation nor any individual participants in the research will be named, nor will be they be readily identifiable through other means in the thesis or any papers or publications resulting from the research. The anonymity of individuals and organisations will be preserved. Participating organisations may consent (expressly and in writing) to be named if they so desire.

Agreement to Participate:
Participation by organisations and individuals is voluntary, and participants are free to withdraw from the project at any time. You can agree to participate in this project by reading and signing the Consent Form attached.

NOTE: This project has been approved by Charles Sturt University’s Ethics in Human Research Committee. If you have any complaints or reservations about the ethical conduct of this project, you may contact the Committee through the Executive Officer:
The Executive Officer
Ethics in Human Research Committee
The Grange
Charles Sturt University
Bathurst NSW 2795

Tel: (02) 63 384 187
Fax: (02) 63 384 833

Any issues you raise will be treated in confidence and investigated fully and you will be informed of the outcome.
ORGANISATION CONSENT FORM

Name of Research Project: The role of costs in outsourcing decisions:
Selected studies of public sector organisations

Name, Address and Phone No of Principal Investigator:
Jayne Elizabeth BISMAN
School of Accounting
Charles Sturt University
Bathurst NSW 2795
Phone: (02) 6338 4101 Fax: (02) 6338 4405

1. On behalf of .................................................................(name of organisation),
I/we ..............................................................................(name/s of duly
authorised officer/s of the organisation),

consent to the participation of the organisation in the research project titled “The
role of costs in outsourcing decisions: Selected studies of public sector
organisations”.

2. I/we understand that the organisation’s participation in the project can be freely
withdrawn at any time.

3. The purpose of the research has been explained to me/us and I/we have read and
understood the Information Statement for Research Participants given to me/us.

4. I/we understand that any information or details gathered in the course of this
research about the organisation are confidential and will be used only for
academic purposes, and that neither the organisation’s name nor any other
identifying information will be used or published without my/our written
permission.

5. This study has been approved by Charles Sturt University’s Ethics in Human
Research Committee. I/we understand that if I/we have any complaints or
concerns about this research I/we can contact:

Mr Barry Yau
Executive Officer
Ethics in Human Research Committee
The Grange
Charles Sturt University
Bathurst NSW 2795
Phone: (02) 6338 4187 Fax: (02) 6338 4833

Signed by: .................................................................
Date .................................................................
Appendix 9

Individual consent proforma
INDIVIDUAL CONSENT FORM

Name of Research Project: The role of costs in outsourcing decisions: Selected studies of public sector organisations

Name, Address and Phone No of Principal Investigator: Jayne Elizabeth BISMAN
School of Accounting
Charles Sturt University
Bathurst NSW 2795
Phone: (02) 6338 4101 Fax: (02) 6338 4405

1. I, ..............................................................(your name), consent to my participation in the research project titled “The role of costs in outsourcing decisions: Selected studies of public sector organisations”.

2. I understand that I am free to withdraw my participation in the research at any time.

3. The purpose of the research has been explained to me and I have read and understood the Information Statement for Research Participants given to me.

4. I do/do not (strike out whichever is inapplicable) permit the investigator to audio tape record my interview/s as part of this project.

5. I understand that any information or personal details gathered in the course of this research about me are confidential and will be used only for academic purposes, and that neither my name nor any other identifying information will be used or published without my written permission.

6. This study has been approved by Charles Sturt University’s Ethics in Human Research Committee. I understand that if I have any complaints or concerns about this research I can contract:

Mr Barry Yau
Executive Officer
Ethics in Human Research Committee
The Grange
Charles Sturt University
Bathurst NSW 2795
Phone: (02) 6338 4187 Fax: (02) 6338 4833

Signed by: ................................................
Date .............................................
Appendix 10

Assumption testing
The following pages of this Appendix present sample output of the assumption testing of variables described in Chapter 5.

The variable appearing in the sample output for normality tests is survey respondents' public sector employment experience, expressed in years. The output relates only to respondents from outsourcing organisations (n = 116). The output produced by using SPSS computer software includes the case processing summary, descriptive statistics for the variable (including measures of skewness and kurtosis), details of extreme values within the data set, and tests of normality based on the Kolmogorov-Smirnov technique with Lilliefors correction. The Shapiro-Wilks statistic has not been calculated since the sample size is greater than 50. These statistics are followed by a number of graphs pertaining to the variable, including a histogram, stem and leaf plot, normal and detrended normal Q-Q plots, and box plot.

The statistics and graphs show that respondents' public sector employment experience in years is a non-normally distributed variable. The distribution is positively skewed and the negative value for kurtosis indicates that the distribution of the variable is flatter (platykurtic) than a standard normal distribution.

Output is also included in this Appendix for Levene's tests of homogeneity of variances for a number of other variables.
Sample output for normality tests of survey respondents’ public sector employment experience (in years)

### Case Processing Summary

<table>
<thead>
<tr>
<th>Cases</th>
<th>Valid</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Percent</td>
<td>N</td>
<td>Percent</td>
</tr>
<tr>
<td>Public Sector Employment</td>
<td>115</td>
<td>99.1%</td>
<td>1</td>
</tr>
</tbody>
</table>

### Descriptives

<table>
<thead>
<tr>
<th>Public Sector Employment</th>
<th>Statistic</th>
<th>Std. Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>17.0110</td>
<td>.9729</td>
</tr>
<tr>
<td>95% Confidence Interval for Mean</td>
<td>Lower Bound</td>
<td>15.0836</td>
</tr>
<tr>
<td></td>
<td>Upper Bound</td>
<td>18.9383</td>
</tr>
<tr>
<td>5% Trimmed Mean</td>
<td>16.7742</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>15.0000</td>
<td></td>
</tr>
<tr>
<td>Variance</td>
<td>108.853</td>
<td></td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>10.4332</td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>.42</td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>43.92</td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>43.50</td>
<td></td>
</tr>
<tr>
<td>Interquartile Range</td>
<td>17.5900</td>
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<tr>
<td>Skewness</td>
<td>.283</td>
<td>.226</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>-.937</td>
<td>.447</td>
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</table>

### Extreme Values

<table>
<thead>
<tr>
<th>Public Sector Employment</th>
<th>Case Number</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>2</td>
<td>30</td>
<td>38.50</td>
</tr>
<tr>
<td>3</td>
<td>26</td>
<td>36.00</td>
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<tr>
<td>4</td>
<td>2</td>
<td>35.00</td>
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<tr>
<td>5</td>
<td>62</td>
<td>a</td>
</tr>
<tr>
<td>Lowest</td>
<td>1</td>
<td>80</td>
</tr>
<tr>
<td>2</td>
<td>130</td>
<td>.75</td>
</tr>
<tr>
<td>3</td>
<td>71</td>
<td>1.00</td>
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<tr>
<td>4</td>
<td>28</td>
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<tr>
<td>5</td>
<td>117</td>
<td>1.17</td>
</tr>
</tbody>
</table>

a. Only a partial list of cases with the value 35 are shown in the table of upper extremes.

### Tests of Normality

<table>
<thead>
<tr>
<th>Public Sector Employment</th>
<th>Kolmogorov-Smirnov&lt;sup&gt;a&lt;/sup&gt;</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Statistic</td>
</tr>
<tr>
<td></td>
<td>.102</td>
</tr>
</tbody>
</table>

<sup>a</sup> Lilliefors Significance Correction
Histogram

Stem-and-Leaf Plot

Frequency  Stem &  Leaf
15.00      0 .  00111112344444
19.00      0 .  5566666677778889999
18.00      1 .  00000011112222344
13.00      1 .  555555666667
15.00      2 .  000000011222233
17.00      2 .  5555556777788999
12.00      3 .  000000011233
 5.00      3 .  55568
 1.00      4 .  3

Stem width: 10.00
Each leaf: 1 case(s)

Normal Q-Q Plot

Detrended Normal Q-Q Plot

Observed Value
Sample output Levene’s tests of homogeneity of variances

For factors important in outsourcing decision making (Survey Question 4) for outsourcing organisations, based on level of government (Question 21):

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality &amp; Customer Factors</td>
<td>1.769</td>
<td>2</td>
<td>111</td>
</tr>
<tr>
<td>Cost &amp; Financial Factors</td>
<td>.784</td>
<td>2</td>
<td>111</td>
</tr>
<tr>
<td>Contractor Factors</td>
<td>.634</td>
<td>2</td>
<td>111</td>
</tr>
<tr>
<td>Staffing &amp; Labour Factors</td>
<td>.542</td>
<td>2</td>
<td>111</td>
</tr>
<tr>
<td>Other Factors</td>
<td>1.696</td>
<td>2</td>
<td>111</td>
</tr>
</tbody>
</table>

For selected costing methods (Survey Question 5), based on organisation type (Question 22) (ignoring ‘Don’t know’ responses)

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Costs</td>
<td>1.219</td>
<td>2</td>
<td>107</td>
</tr>
<tr>
<td>Long-term Costs</td>
<td>2.683</td>
<td>2</td>
<td>108</td>
</tr>
<tr>
<td>Accrual Basis</td>
<td>.476</td>
<td>2</td>
<td>107</td>
</tr>
<tr>
<td>Full Costs</td>
<td>.828</td>
<td>2</td>
<td>107</td>
</tr>
<tr>
<td>DCF &amp; NPV Techniques</td>
<td>.905</td>
<td>2</td>
<td>107</td>
</tr>
<tr>
<td>ABC Costs</td>
<td>.565</td>
<td>2</td>
<td>104</td>
</tr>
<tr>
<td>Search Costs</td>
<td>2.297</td>
<td>2</td>
<td>107</td>
</tr>
<tr>
<td>Transition Costs</td>
<td>.666</td>
<td>2</td>
<td>106</td>
</tr>
</tbody>
</table>
Appendix 11

Output for factor analysis & calculation of Cronbach's alpha coefficients
The following pages of Appendix 11 present sample output of the factor analyses reported in Chapter 5. The sample concerns factor analyses run for responses to aspects of Question 5 of the outsourcing survey questionnaire. In addition to the factor analysis output, output for several Cronbach's alpha coefficients is also provided. The factor analysis output concerns the conceptual distinctiveness of transaction costs compared to inappropriate production costing methods, and the conceptual cohesiveness of transaction costs and production costs determined using appropriate costing methods. The output for the factor and reliability analyses was produced by using SPSS computer software.
**Factor Analysis – final round**

Correlation matrix\(^a\) – Transaction costs & *inappropriate* production cost methods

<table>
<thead>
<tr>
<th></th>
<th>Search Costs</th>
<th>Transition Costs</th>
<th>Monitoring Costs</th>
<th>Current Costs</th>
<th>Allocated Costs</th>
<th>Full Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search Costs</td>
<td>1.000</td>
<td>.540</td>
<td>.391</td>
<td>.286</td>
<td>.108</td>
<td>.221</td>
</tr>
<tr>
<td>Transition Costs</td>
<td>.540</td>
<td>1.000</td>
<td>.548</td>
<td>.396</td>
<td>.367</td>
<td>.424</td>
</tr>
<tr>
<td>Monitoring Costs</td>
<td>.391</td>
<td>.548</td>
<td>1.000</td>
<td>.358</td>
<td>.277</td>
<td>.334</td>
</tr>
<tr>
<td>Current Costs</td>
<td>.286</td>
<td>.396</td>
<td>.548</td>
<td>1.000</td>
<td>.458</td>
<td>.456</td>
</tr>
<tr>
<td>Allocated Costs</td>
<td>.108</td>
<td>.367</td>
<td>.277</td>
<td>.458</td>
<td>1.000</td>
<td>.483</td>
</tr>
<tr>
<td>Full Costs</td>
<td>.221</td>
<td>.424</td>
<td>.334</td>
<td>.456</td>
<td>.483</td>
<td>1.000</td>
</tr>
</tbody>
</table>

**Correlation matrix\(^a\) (significance) – Transaction costs & *inappropriate* production cost methods**

<table>
<thead>
<tr>
<th></th>
<th>Search Costs</th>
<th>Transition Costs</th>
<th>Monitoring Costs</th>
<th>Current Costs</th>
<th>Allocated Costs</th>
<th>Full Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search Costs</td>
<td>.000</td>
<td>.000</td>
<td>.001</td>
<td>.134</td>
<td>.011</td>
<td>.000</td>
</tr>
<tr>
<td>Transition Costs</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Monitoring Costs</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.002</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Current Costs</td>
<td>.134</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Allocated Costs</td>
<td>.011</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

\(^a\) Determinant = .188

**KMO & Bartlett’s Test**

<table>
<thead>
<tr>
<th></th>
<th>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</th>
<th>.784</th>
<th>Bartlett’s Test of Sphericity</th>
<th>Approx. Chi-Square</th>
<th>174.160</th>
<th>df</th>
<th>15</th>
<th>Sig.</th>
<th>.000</th>
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</thead>
</table>

**Communalities**

<table>
<thead>
<tr>
<th></th>
<th>Initial</th>
<th>Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search Costs</td>
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<td>.471</td>
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<tr>
<td>Transition Costs</td>
<td>.495</td>
<td>.691</td>
</tr>
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<td>Monitoring Costs</td>
<td>.339</td>
<td>.413</td>
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<td>Current Costs</td>
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<td>.426</td>
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<td>Allocated Costs</td>
<td>.335</td>
<td>.554</td>
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<td>Full Costs</td>
<td>.346</td>
<td>.465</td>
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</table>

Extraction Method: Principal Axis Factoring

**Total Variance Explained**

*Initial Eigenvalues*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Total</th>
<th>% of Variance</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.903</td>
<td>48.378</td>
<td>48.378</td>
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<tr>
<td>2</td>
<td>1.088</td>
<td>18.139</td>
<td>66.516</td>
</tr>
<tr>
<td>3</td>
<td>.595</td>
<td>9.911</td>
<td>76.428</td>
</tr>
<tr>
<td>4</td>
<td>.549</td>
<td>9.155</td>
<td>85.583</td>
</tr>
<tr>
<td>5</td>
<td>.503</td>
<td>8.387</td>
<td>93.970</td>
</tr>
<tr>
<td>6</td>
<td>.362</td>
<td>6.030</td>
<td>100.000</td>
</tr>
</tbody>
</table>
**Extraction Sums of Squared Loadings  Rotation Sums of Squared Loadings**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Total</th>
<th>% of Variance</th>
<th>Cumulative %</th>
<th>Total</th>
<th>% of Variance</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.419</td>
<td>40.325</td>
<td>40.325</td>
<td>1.511</td>
<td>25.184</td>
<td>25.184</td>
</tr>
<tr>
<td>2</td>
<td>0.599</td>
<td>9.989</td>
<td>50.313</td>
<td>1.508</td>
<td>25.130</td>
<td>50.313</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
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<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Extraction Method: Principal Axis Factoring

**Factor Matrix**

<table>
<thead>
<tr>
<th>Factor</th>
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</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Full Costs</td>
<td>.628</td>
<td>.265</td>
</tr>
<tr>
<td>Current Costs</td>
<td>.623</td>
<td>.192</td>
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<tr>
<td>Monitoring Costs</td>
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<td>-.180</td>
</tr>
<tr>
<td>Allocated Costs</td>
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<td>Search Costs</td>
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</tr>
</tbody>
</table>

Extraction Method: Principal Axis Factoring
2 factors extracted. 15 iterations required.

**Rotated Factor Matrix**

<table>
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<tr>
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<th>2</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Search Costs</td>
<td>.682</td>
<td>7.690E-02</td>
</tr>
<tr>
<td>Monitoring Costs</td>
<td>.563</td>
<td>.308</td>
</tr>
<tr>
<td>Allocated Costs</td>
<td>.101</td>
<td>.737</td>
</tr>
<tr>
<td>Full Costs</td>
<td>.257</td>
<td>.632</td>
</tr>
<tr>
<td>Current Costs</td>
<td>.305</td>
<td>.577</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Axis Factoring
Rotation Method: Varimax with Kaiser Normalization
Rotation converged in 3 iterations.

**Factor Transformation Matrix**

<table>
<thead>
<tr>
<th>Factor</th>
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</tr>
</thead>
<tbody>
<tr>
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<td>.708</td>
<td>.706</td>
</tr>
<tr>
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<td>-.706</td>
<td>.708</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Axis Factoring
Rotation Method: Varimax with Kaiser Normalization
## Factor Analysis – final round

Correlation matrix – Transaction costs & appropriate production cost methods

<table>
<thead>
<tr>
<th></th>
<th>Avoid Costs</th>
<th>L-term Costs</th>
<th>Accrual Basis</th>
<th>DCF/NPV</th>
<th>ABC Costs</th>
<th>Search Costs</th>
<th>Trans Costs</th>
<th>Monitor Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoidable Costs</td>
<td>1.000</td>
<td>.549</td>
<td>.346</td>
<td>.298</td>
<td>.336</td>
<td>.271</td>
<td>.432</td>
<td>.358</td>
</tr>
<tr>
<td>Long-term Costs</td>
<td>.549</td>
<td>1.000</td>
<td>.294</td>
<td>.245</td>
<td>.252</td>
<td>.248</td>
<td>.391</td>
<td>.367</td>
</tr>
<tr>
<td>Accrual Basis</td>
<td>.346</td>
<td>.294</td>
<td>1.000</td>
<td>.386</td>
<td>.309</td>
<td>.260</td>
<td>.434</td>
<td>.329</td>
</tr>
<tr>
<td>DCF/NPV</td>
<td>.298</td>
<td>.245</td>
<td>.386</td>
<td>1.000</td>
<td>.310</td>
<td>.207</td>
<td>.394</td>
<td>.301</td>
</tr>
<tr>
<td>ABC Costs</td>
<td>.336</td>
<td>.252</td>
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<td>.310</td>
<td>1.000</td>
<td>.172</td>
<td>.251</td>
<td>.235</td>
</tr>
<tr>
<td>Search Costs</td>
<td>.271</td>
<td>.248</td>
<td>.260</td>
<td>.207</td>
<td>.172</td>
<td>1.000</td>
<td>.534</td>
<td>.371</td>
</tr>
<tr>
<td>Transition Costs</td>
<td>.432</td>
<td>.391</td>
<td>.434</td>
<td>.394</td>
<td>.251</td>
<td>.534</td>
<td>1.000</td>
<td>.540</td>
</tr>
<tr>
<td>Monitoring Costs</td>
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<td>.367</td>
<td>.329</td>
<td>.301</td>
<td>.235</td>
<td>.371</td>
<td>.540</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Correlation matrix* (significance) – Transaction costs & appropriate production cost methods

<table>
<thead>
<tr>
<th></th>
<th>Avoid Costs</th>
<th>L-term Costs</th>
<th>Accrual Basis</th>
<th>DCF/NPV</th>
<th>ABC Costs</th>
<th>Search Costs</th>
<th>Trans Costs</th>
<th>Monitor Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoidable Costs</td>
<td>.000</td>
<td>.000</td>
<td>.001</td>
<td>.000</td>
<td>.002</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Long-term Costs</td>
<td>.000</td>
<td>.001</td>
<td>.006</td>
<td>.005</td>
<td>.005</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Accrual Basis</td>
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</tr>
<tr>
<td>DCF/NPV</td>
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<td>.005</td>
<td>.001</td>
<td>.001</td>
<td>.001</td>
<td>.000</td>
<td>.000</td>
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<td>.001</td>
<td>.005</td>
<td>.039</td>
<td>.000</td>
<td>.003</td>
<td>.008</td>
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<tr>
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<td>.005</td>
<td>.001</td>
<td>.005</td>
<td>.039</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Transition Costs</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.005</td>
<td>.000</td>
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<td>.000</td>
</tr>
<tr>
<td>Monitoring Costs</td>
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<td>.001</td>
<td>.008</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

* Determinant = .126

### KMO & Bartlett’s Test

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | .836      |
| Bartlett’s Test of Sphericity                 | Approx. Chi-Square | 210.436 |
|                                               | df        | 28     |
|                                               | Sig.      | .000   |

### Communalities

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Extraction Method: Principal Axis Factoring
### Total Variance Explained

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<th>Cumulative %</th>
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Extraction Method: Principal Axis Factoring

No rotated Sums of Squared Loadings as rotation not required – only one factor extracted.

### Factor Matrix

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Extraction Method: Principal Axis Factoring

1 factor extracted. 5 iterations required.
RELIABILITY ANALYSIS - SCALE (ALPHA)
Method 2 (covariance matrix) will be used for this analysis

Correlation Matrix - Transaction Costs only

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<th>MONCOST</th>
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N of Cases = 109.0

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N of Variables = 3

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Reliability Coefficients

Alpha = .7515
Standardized item alpha = .7516
Correlation Matrix - Both significant appropriate & inappropriate production costs, & transaction costs

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N of Cases = 105.0

Statistics for Scale Mean Variance Std Dev Variables

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Item-total Statistics

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Reliability Coefficients

11 items

Alpha = .8528 Standardized alpha = .8558
Reliability summary for appropriate production costs & transaction costs

N of
Statistics for
SCALE

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Item-total Statistics

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Reliability Coefficients

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Alpha = .7970