

POLICY AND GOVERNANCE

H

ow Effective is Cost-Benefit Analysis in Assisting Decision Making by Public Sector Managers? Case Studies of two Australian Departments

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Abstract

This research uses the public value strategic framework (Moore 1995) as a means and end in analyzing how effective CBA is in assisting public decision making. The research found that the effectiveness of CBA in assisting public decision making is in a paradoxical situation. Conceptually, as agreed by public managers, CBA is a useful tool in assisting public decision making. However, in practice, by looking at two different departments, this study shows that CBA as a decision making tool has been used in pragmatic way to support their decision rather than as a 'rational' decision making tool. This happens and potentially undermines the creation of public value because of a lack of transparency in the use of CBA. This could hold big implications, decreasing public trust which then leads to reducing legitimacy and support of government decision making. Operational capacity, both to undertake and utilize CBA to support decision making, were not convincing. Lack of human resources and also some methodological problems has degraded the ability to undertake CBA. Lack of transparency has potentially de-motivated public managers (decision makers) to learn CBA. This might also be related to lack of incentives or punishments that are able to make public managers (decision makers) comply with the use of CBA.

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Foreword

It is a pleasure to introduce Mr Sudiana's work to a broader audience. This paper has its genesis in research he undertook as part of the Research Project course in the Crawford School of Economics and Government where students are encouraged to undertake applied research relating to their coursework and their professional experience. It was a real pleasure to supervise this project where the author combined intellect, hard work, with new ideas he learned in the Crawford School to produce a novel and interesting contribution to the field.

The paper makes an important contribution to the study of public managers and organisations. In it, the author melds two separate areas of study in the public sector management literature: the public value framework which focuses on strategic management, and cost-benefit analysis, a tool for assessing alternative courses of action. In bringing these together, the author sets up a means for investigating managerial practice as it relates to decision-making and he asks important questions about how and why managers go about this. The findings point to tensions and paradoxes and raise a series of critical areas for further study, and his conceptual work adds in a new way to the debate about the efficacy of the public value approach.

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List of Abbreviations/Acronyms

BITRE	Bureau of Infrastructure, Transport, and Regional Economics
CBA	Cost Benefit Analysis
CEA	Cost Effective Analysis
DEWHA	Department of Environment, Water, Heritage and the Arts
DITRD LG	Department of Infrastructure, Transport, Regional Development and Local Government
EPBC	Environment Protection and Biodiversity Conservation
MCA	Multi Criteria Analysis
NBN	National Broadband Network
OBPR	Office of Best Practice Regulation
RIA	Regulatory Impact Analysis (Assessment)
RIS	Regulatory Impact Statement
WTA	Willingness to Accept
WTP	Willingness to Pay

Introduction

This research intended to study the effectiveness of Cost-Benefit Analysis (CBA) as a tool for assisting public sector decision making. The focus on managerialism, strategic management, and more recently public value have driven a focus on improving decision making capabilities in the public sector. Public managers have access to a broad range of tools to assist them in decision-making for instance CBA, Cost Effective Analysis (CEA), Multi Criteria Analysis (MCA) and there is a well-developed literature examining the merits of each approach.

Of the many available tools, CBA is one that is widely used in practice, especially in relation to regulatory decisions (Hahn and Tetlock, 2008). There are extensive debates in the literature on the use of CBA, both practical and theoretical and existing studies point to ongoing contestability about its value. Recent research also considers the effectiveness of CBA in decision making process by conducting a reviews of Regulatory Impact Assessment (RIA). Existing research focuses on the role of CBA in decision making process by looking at the compliance of public manager/institution to fulfil regulatory body requirements, however it does not consider situations where there is managerial choice over when and how to use CBA (Jacob at al. 2008; Hahn and Dudley 2007; Renda 2006).

In the Australian context, the implementation of CBA is not easily tracked. One way to look at it is by looking at the implementation of Regulatory Impact Analysis/Statement (RIA/RIS)¹ for regulatory decision making as CBA is part of this. Based on the Office of Best Practice Regulation (OBPR) Report 2007-08, compliance levels are high; however, there remain questions over the quality of these analyses (see Harrison 2009, p.43). Since CBA is part of RIA/RIS, the same question about quality can be applied.

¹ RIA or Regulatory Impact Analysis [Assessment] is a process of examining the likely impact of a proposed regulation and alternative policy options to assist the policy development process; RIS or Regulatory Impact Statement is a document that details the regulatory impact assessment process, including the problem requiring government intervention, the proposed regulation and its alternative, the impact of different options, and consultation with stakeholders. RIA/RIS is needed when department/agency would like to propose regulatory decision that has significant impact to society. RIA/RIS should be prepared in order for the decision can be passed to decision makers, i.e. Minister/PM/Cabinet (OBPR 2007, p. xi).

This situation leads to a new question of how useful public managers perceive CBA to be in the decision making process. Therefore, this study aims to determine the role of CBA in assisting public manager decision making in the Australian Federal Government.

The focus on the Australian Federal Government is justified for three reasons. Firstly, the Australian government has extensive history with CBA (Dobes 2008, p.6). Secondly, the role of CBA has risen to prominence because it is required as part of RIS. Thirdly, there is an institution, OBPR that is specifically responsible for supervising and assisting the implementation of CBA (as part of RIS). The study relies on primary and secondary data: primary data gathered from interviews, and secondary data gained from government reports. The study is important because it provides analysis of current practice including adoption and challenges. Secondly, it also provides a basis for comparative studies with other countries that currently use or are considering implementing CBA in regulatory decision making.

The findings inform the theory by showing that CBA is a useful decision making tool in assisting public managers to make a valuable decisions with support and legitimacy and, further, to make decisions that are operationally feasible. However, in practice, it seems that public managers use CBA in a very pragmatic way to support their decisions. There is a lack of transparency in the use of CBA and also operational capacity problems.

This report is divided into several sections. Section one provides an overview of the project. Section two deals with the core theoretical concepts - CBA, public value framework and RIS. Section three provides a discussion of the theoretical and practical debates about CBA in public decision making. Section four deals with analytical framework, research questions and methodology used in this study. Section five presents the analysis of CBA in the two government departments. Section six provides analysis of the project linking the implementation of CBA in Australian government to public value strategic framework. Lastly, section seven contains the final conclusions.

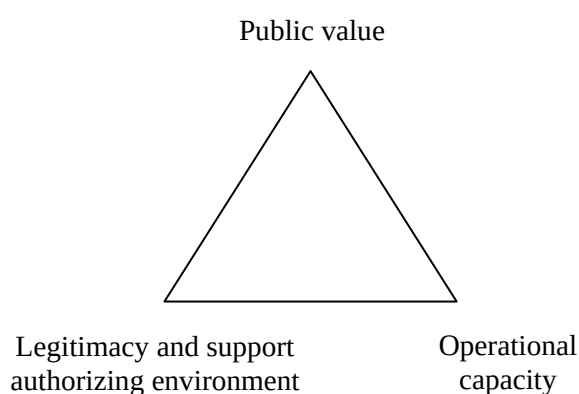
Theoretical Concepts

This section covers the theoretical concepts used in this research. It sets out the public value framework and then links CBA to it. This section concludes by giving an explanation about the link between CBA, the decision making process and RIS (of which CBA is part).

2.1 Public Value Framework

Moore's strategic management framework has attracted lots of attention from scholars and public managers since his book was published in 1995. Debates concerning its merits have emerged in recent times. The framework was developed to answer the question 'what is the goal of public sector managers'? Moore (1995) argues that the goal of public sector managers is creating public value and they can be seen to have done this when their strategy or policy fulfils three key tests: firstly, it should be something substantively valuable to an institution, clients and beneficiaries provided at low cost in terms of money and authority; secondly, it must be legitimate and politically sustainable; and thirdly, it must be operationally and administratively feasible (p.71).

Figure 2.1 Strategic Management Framework²



² Source: Moore, MH 1995, *Creating public value: strategic management in government*, Harvard University Press, Cambridge, Massachusetts.

In order to make a valuable decision, public sector managers should meet these three aspects to ensure the triangle (see Figure 2.1) is in strategic alignment.

2.2 Cost Benefit Analysis

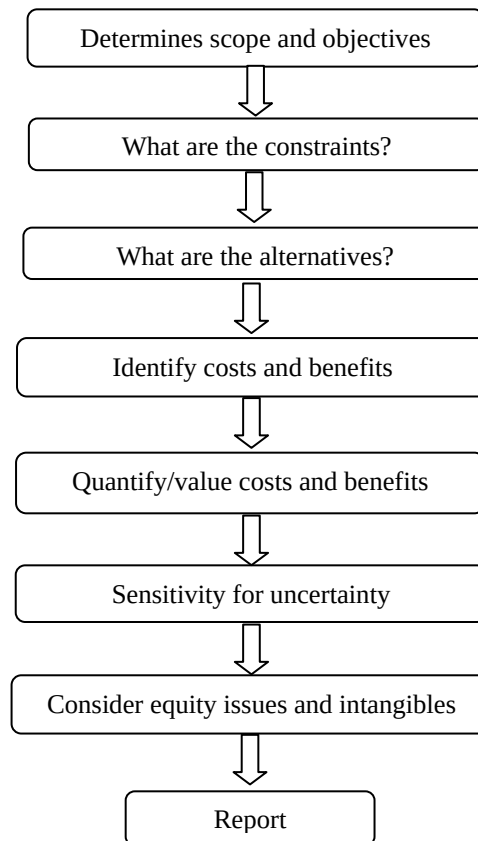
There are many conceptual definitions of CBA. Pearce (1983) defines it as a procedure for measuring gains and losses to individuals using money as a measuring rod, aggregating these and expressing them as net social gains and losses (p.3). Sinden and Thampapillai (1995) define CBA as ‘a method to assess the relative desirability of competing alternatives; where desirability measured as economic worth to society as a whole’ (p.1). Meanwhile Boardman et al. (2006) define CBA as a policy [project] assessment method that [attempts or purports] to quantify in monetary terms the value of all consequences of a policy to all members of society (p.2). In simple terms CBA can be seen as a tool for analyzing alternatives in decision making.

In the Australian Government context CBA is formally described by the Department of Finance and Administration (2006) as ‘a procedure for comparing alternative courses of action by reference to the net social benefits that they produce for the community as a whole’ (p. 2). There are several steps in CBA process as set out in the DoFA Handbook (see Figure 2.2).

2.3 Cost Benefit Analysis and Public Value

As discussed, the goal of public sector managers is to produce something substantively valuable. The question then is how to measure whether that public managers produce something valuable. To help public managers to be able to develop something valuable there are some analytical tools that can be used; one of them is CBA. As argued by Moore (1995) CBA can be used to help recognize value [in terms of economic efficiency] from policy alternatives (p.73). However, it should be noted that tools available are not always able to capture the full range of public value (Kelly et al. 2002, p. 32).

Figure 2.2 Key steps in the Cost Benefit Analysis³



Hills and Sullivan (2006), also state that CBA including contingent valuation could be useful to help public managers in deciding a valuable decision (p.49). Although they recognise that since CBA relies on ‘hard’ numerical inputs and outputs it might need more consideration for public managers to use it, in order to avoid a misleading interpretation of the result. However, they also argue that ‘a good CBA will make uncertainties explicit and express the results as a range of values rather than as a single-point estimate’ (Hills & Sullivan 2006, p.49). Cowling (2006) does not explicitly state CBA can be used to determine what is considered valuable in a public decision. Cowling does however state some approaches usually used in CBA, such as contingent

³ Source: DoFA 2006, Handbook of CBA, Department of Finance and Administration, Australian Government, p. 9

valuation to know people's preference (using Willingness to Pay (WTP) and Willingness to Accept (WTA) as its measures) (p.14).

Based on the previous discussion, it can be seen that CBA, to some extent, is a tool that can be used to help public managers determines what is considered valuable in their decision making.

2.4 Cost-Benefit Analysis, Decision Making Process and Regulatory Impact

Statement

The policy process is 'a sequence of stages in the development and pursuit of this goal, beginning with thought, moving through process and ending with solution' (Colebatch 2002, p. 49). The policy process is complex. There is no single best way of making choices, no method guaranteed to deliver the right answer. Values, interests and resources are involved in the process which is mediated through institutions and negotiated by politics; making the process, in practice, very fluid. Even though, it is believed there is no perfect and easy way of making policy, there are a range of models which attempt to achieve such results. One model widely considered is a rational comprehensive model.⁴

CBA, as an economic analysis tool, has the potential to help public managers make decision, as part of the policy process in a rational way. CBA enables public managers to assess the alternative options available by comparing the benefits and costs of each option. Through this process it is expected public managers will able to decide which

⁴ A rational comprehensive model is introduced by Herbert Simon. This model has six steps, those are: (1) defining the problem, (2) determining the values, goals and objectives, (3) identifying all options for achieving the goal, (4) determining costs and benefits of each option, (5) comparing costs and benefits, and (6) selecting the option that maximises the outcomes which in line with values, goals and objective, (Davis et al. 1993, p. 161). CBA, in this regards, supports rational comprehensive model by providing a rational choice for decision makers. The basic concept of rational choice is action that will be taken is action which provides greater benefits compared to costs (Pearce 1983, p.2). A good decision making about complex issues requires a good analysis. Through analysis the decision makers can develop options and make decision (Bridgman & Davis 1998, p.41). Among many tools, CBA is one of them that can be used to assist decision making process. CBA as an example of rational analysis reduces chance that an important option will be overlooked. It supports the wider search for options, rather than deep search for only a few options (Klein 1998, p.261)

option will generate the highest net benefits (social welfare). CBA will also help public managers to achieve economic efficiency in the essence that it improves allocation of scarce resources (Campbell & Brown 2005, p.24). CBA not only provides 'a justification for strengthening the regulation, but also a suggestion for how to improve its design' (Hahn & Tetlock 2008, p.70).

In practice implementing a rational comprehensive model alone is really difficult. This is because many problems in the public sector are not easily defined, goal and values may be conflicting, time and resources may be limited, techniques for analysing the choice may be improper, and politicians may have other incentives. Such factors combine with the differences between public sector organizations to provide a range of challenges for the use of CBA. This might be because of the different characteristics of each public sector institution. Some institutions are more divergent and strongly contested than others, some may be relatively stable, others may be subject to profound disagreement and others may be lacking a solid information base. These different characteristics of institutions may bring significantly different implication in policy decision making (Head 2008, p.8). In the Australian context, the use of CBA as part of decision making process is more likely to be assessed in relation to Regulatory Impact Statement (RIS)⁵.

This section gave a brief explanation about public value and its creation. It also demonstrated the link between CBA and public value framework as well as the link between CBA and RIS in Australian decision making process. The following section discusses the existing debates about the use of CBA in public decision making.

⁵ RIS is a document prepared by department/agency that would like to propose a regulatory decision. Basically RIS should be prepared when a regulatory proposal is considered likely to significantly impact to business, individual or economy. There are seven key steps that should be conducted to prepare RIS, which conducted by setting out: (1) problems that will be addressed; (2) the objectives that will be achieved; (3) the options/alternatives for achieving the objectives; (4) impact analysis using CBA; (5) consultation with stakeholders; (6) recommended option; and (7) strategy for implementation and review (OBPR 2007, p. 27).

Literature Review

Cost-Benefit Analysis is widely used in decision making; however, the debates about it have been extensive and both opponents and supporters have developed plausible arguments. This study groups the various themes in the debates into three main categories: ethical, political and methodological (Swartzman, 1982). This section ends by looking at the use of CBA in practice so we can examine how CBA has been used to inform decision making.

3.1 Cost Benefit Analysis and Ethical Issues

The supporters of CBA in decision making process argue that a policy developed based on CBA is ethical because it is grounded in utilitarianism ethic. According to Fuguitt and Wilcox (1999) utilitarianism considers policy to be morally correct if it generates more good [benefits] than bad [costs] (p.41), as this will maximize happiness in society. This argument is similar to Beatley (1994) who argued, ‘what is right is what will maximize what is good [benefits]’ (p.24). From this perspective, public policy is ethical or not based on its consequences or policy outcomes with utilitarianism associated with notion that ‘the ends justify the means’.

On the other hand, Ackerman (2008) argues CBA contains many problems from deep ethical issues and continual logical contradictions, towards forecasting errors and partisan abuse (p.2). The key ethical concern here is the notion that not all things can be monetized in dollar values; there are things that are ‘priceless’ especially in relation to human health, the natural environment and its sustainability (Ackerman 2008, p. 31). This rejection of CBA is related to a deontological ethic, with deontologists arguing that there are some actions that are unethical regardless their consequences. This approach is associated with the notion that ‘the means must justify the ends’.

Further there have been ethical issues arisen relating to the link between CBA and redistribution, with CBA seen as deficient in terms of the redistribution of welfare (Dunn 2007, p.235). Problems of distributional welfare are both intra and inter generations. Intra generation problem occurs for instance because resources available

should be given to the people who can produce products and services more efficiently. In reality this becomes an ethical dilemma when for instance people who are more efficient are rich people because they have better technology and knowledge compared to poor people. Meanwhile inter generation problems happen because of an inability to equally distribute benefits and costs that burden current or future generations. The current generations gain higher benefits at the expense of future generations. This can be seen on the issues of environmental resources. If these issues are ignored then this is unjust (Richardson 2000, p. 972).

Based on the above analysis, the ethical debate about the use of CBA in public decision making is not easily resolved. Therefore, it is worthwhile to see the third view which argues that CBA is not grounded in ethical principles; it is instead close to value free. According to Sugden and Williams (1978) CBA is 'a way of organizing thought through 'scientific' technique, which is used to compare alternatives' (p. 236). Pearce (1983) has a similar argument arguing 'CBA makes no claim to produce morally correct decisions', it is just a tool for decision makers (p.3). Those arguments position CBA as a neutral tool, with ethical issues caused by users. As argued by Blamey and Common (1999), the rightness or wrongness of action depends on the motivation behind the action rather than the tool (p.809). In the context of public decision making, the ethical issue does not lie in CBA but in public managers' interest.

3.2 Cost Benefit Analysis and Political Issues

It is argued that CBA as an economic analysis tool contributes to better decisions. This is because CBA can be an effective way to force public managers to be clear about the basis of their decisions and the use of CBA will facilitate other parties monitoring of the decision making process (Adler & Posner 2000, p 1141). It is believed that both these reasons will lead to accountability improvement. A similar argument is also raised by Campen (1986) who argues CBA does not seek to replace political process with technocratic rationality, instead to increase rational input to decision making, in the forms of better concern for the consequences of each option available (p.83). Further Pearce (1983) argued that CBA is an 'input', an 'aid', an 'ingredient' of decision making [and] it does not supplant political judgement (p.3).

On the other side, there is argument that CBA cannot be used in public decision making when the decision is made as a political decision. The market-type 'voting' behaviour captured by economic analysis is fundamentally different from the political voting behaviour (Swartzman 1982, p. 63). CBA in essence is more 'individualistic' while politics is 'communalistic'. A preference of a person as an individual could be different from the preference when the person thinks as part of society. Amongst others, problems associated with decision making driven by individual preferences are that the individual may not be fully informed, may conduct insufficient analysis and may lack relevant knowledge in relation to the consequences of each alternative to their preferences. Added to that the individuals choice may be influenced by socialisation and advertisement effect, thus may not reflect the vested interests of society (Blamey & Common 1999, p.810)

It is a concern that the use of CBA will limit the focus of decision maker only for benefits and costs and forget other aspects that also should be considered. For instance by focusing on the issue of economic efficiency, it less attention is given to equity or distributional aspects. However, as mentioned before CBA does not provide policy decision making. Its only gives information about economic efficiency on allocating 'limited' resources. Therefore, in this context, public managers should also consider other analysis. Another worry is that the use of CBA can be abused by decision makers. It can be used as political weapon for supporting (or rejecting) favourite regulatory targets (Swartzman 1982, p. 67).

3.3 Cost Benefit Analysis and Methodological Issues

There are many methodological issues in the debate about the use of CBA in public sector decision making. In this section I will discuss three important ones.

First, incommensurability concerns. This criticism relates to the use of CBA in public decisions about environment, health and public safety. The problem mainly rests on two aspects: errors in estimating physical effects and errors in estimating the weight (usually in terms of dollars) to be attached to physical effects (Hurter et al. 1982, p.90). For instance, how do we determine the physical effect of clean air, water, etc? How can we know precisely and how can we attach dollar values?

It is believed that for some projects it is difficult to measure the benefits and costs. However, trying to measure as much as possible will allow decision makers to learn more about positives (benefits) and negatives (costs) of alternatives. This is better than a complete absence of quantification (Ergas 2009, p.35, OBPR 2007, p.124). Presenting the non-monetized part together with monetized part will better inform decision makers.

*Second, **discounting*** benefits and costs of a project to the present value is very much reliant on the level of discount rate chosen. Analysts might ‘play’ with alternatives of discount rates to suit their purposes (Hurter et al. 1982, p. 98). The use of discount rates is inherent in intergenerational and ethical problems because it determines and affects future lives (Pablo 2006, np.) There are two possibilities of discounting which can degrade the environmental quality: underestimating future benefits of environmental protection and undercutting future costs of negative environmental consequences (Omura 2004, p.49).

On the other hand, without the discounting system there is another dilemma. The value of something now is equal to value of it in the future. This creates problems for current generations because the lower discount rates drop, the more future consumption matters and the more current generations should sacrifice (Pearce et al. 2003, p.124). This condition brings dilemma about what is the appropriate level of discount rate to balance the need of current and future generations. There are some proposed approaches to determine the appropriate discount rate; for example, declining discount rate (Newell & Pizer 2003, p.69; Li & Lofgren 2000, p. 248). This might help but it does not completely resolve the controversy (Atkinson & Mourato 2008, p.337).

*Third, **data availability*** is important to be able to conduct CBA properly. Given the complexities of public policy it is doubtful that government has reliable data to be able to conduct proper CBA (Swartzman 1982, p.60). According to Heinzerling & Ackerman (2002) the limitation of time and resource [data] will mean CBA is unable to quantify many benefits and costs of a project, which will lead CBA to ‘shoot in the dark’ (p. 2). Due to lack of data, CBA is often done based on preferences and seldom based on full scientific evidence. However, this condition does not mean the analysis does not have any objectivity; the more important thing is to acknowledge the limitation of the analysis. CBA should be accompanied by open disclosure about data sources

and assumptions that have been used to conduct CBA. The uncertainty about some part of analysis should be appreciated and presented honestly (Hansen & Gilberg 2003, p.68).

3.4 Cost Benefit Analysis and Its Practicalities

Apart from the academic debate about the usefulness of CBA, this study will consider the effectiveness of CBA in decision making through an analysis of the implementation of RIA. This is because CBA is a required part of RIA process. The quality of RIA is dependent on the quality of CBA carried out. Some scholars have researched the implementation of CBA in public decision making and have assessed the compliance of agencies [public managers] in doing CBA in their decision making, as part of RIA requirement (Jacob et al. 2008; Hahn & Dudley 2007; Boyfield 2007; Hahn & Tetlock 2007; Renda 2006; Wilkinson 2001). Referring to Hahn and Dudley (2007) who conducted research in the USA, it can be seen that fundamental economic information was not reported (including information on relevant policy alternatives and net benefits [CBA]) in many of the RIAs (p. 209).

Looking at the experience of European countries, Renda (2006) discussed the compliance of agencies in using CBA in their decision making process. The research was conducted using a scorecard approach⁶ to assess the quality of impact assessment. Renda (2006) finds that many important components are frequently not fulfilled by agencies. The quality of analysis has been consistently declining (p.70). Looking at practicalities, it seems that the implementation of CBA, as part of RIA, does not meet with the requirement both in the USA and Europe (Hahn & Tetlock 2007, p. 20). Jacob et al. (2008), who researched impact assessment procedure and practices, reveal that there is a big gap between the assessment impact required in the regulation and what happened in practical implementation (p.2). They found that the assessment impact conducted by agencies was narrow, partial and done at a late stage of decision making (p.2).

⁶ Scorecard approach for analysing regulatory impact analysis/assessment was introduced by Robert Hahn (Renda 2006, p.62). Scorecard approach is a method to analysis the quality of decision by assessing whether a decision fulfils a list of essential elements of a good RIA. The scorecard consists of a series of yes/no questions (Hahn & Dudley 2004, p.7).

In the UK, a similar pattern occurs; the implementation of CBA does not match the requirement. The compliance of agencies [public managers] in conducting proper CBA is low (Boyfield 2007, p.10). Looking at New Zealand, there is a similar situation. The RIAs taken are too brief and have poor quality (Wilkinson 2001, p.96). Australia also has quality issues related to RIA. Harrison (2009), who considered the impact of RIA, argues that even though there is an increase in compliance to best practise regulation requirement, from 8 percent for period 1996-1997 to 74 percent on average for period 1997-2006, this does not address the issue of quality. Harrison (2009) argues that high compliance could be produced through low standards of adequacy and requirements (p. 6). Questioning the quality of the RIA process, also means questioning how CBA has been carried out in the process. This is because CBA is part of RIA.

Looking at the above explanation, it seems that the debates will not be easily resolved. Although there are some potential reductions on methodological controversies, controversies around ethical issues will remain because sometimes these are grounded in very different philosophical approaches, such as debates around deontological versus utilitarianism ethics. In terms of political debates, these are difficult to handle because it is not a problem of CBA as a tool, rather a problem of the users of CBA. However, in practice, the use of CBA as part RIA/RIS has shown unconvincing results.

In summary, the debates about the effectiveness of CBA in assisting public decision making remain. However, as argued by Sen (2000), CBA, as a general discipline, which is grounded in theoretical perspectives, is not entirely controversial (p.931). Therefore, it is interesting to study the effectiveness of the tool in public sector decision making in practice, by examining the Australian government context, in section 5. The following section will outline the fundamental framework of this research.

Analytical Framework, Research Questions and Methodology

This section discusses the analytical framework of the research, followed by an explanation of how public value strategic framework is used to analyse the effectiveness of CBA in assisting public decision making. This section also covers research questions of this project which are framed under strategic management framework. The section ends by explaining the methodological aspects of the research.

4.1 Analytical Framework

Public managers in their daily activities face many problems that require them to make decisions about serious courses of action. These link into political decision making processes. However, there are competing interests that feed into the mix surrounding policy alternatives. Public managers are usually constrained by limited resources, but decisions must be made. CBA offers a reasonable framework to help decision makers prioritize the policy alternatives available.

For the purpose of analysing existing literature this study has framed the debate into the ethical, political and methodological [technical] issues of Swartzman (1982) as discussed in section 3. This project links the debate on ethical issues of CBA to the question of public value creation. For political debate, the use of CBA is linked to legitimacy/support from authorizing environment, and the methodological (technical) concerns of CBA are linked to operational capacity.

To analyse the role of CBA in assisting decision making, this study uses Moore's public value framework (1995). Moore's strategic management framework sets out the dimensions that public managers need to consider when making decisions and includes: authorizing or political environment; operational capacity and public value (strategic goal). As discussed in section 2, model argues that decisions made by public managers should be something valuable for the citizenry, it must gain legitimacy and support from authorizing environment and it must be operationally feasible.

This research tries to look at whether or not CBA is an effective decision making tool in assisting public decision making to achieve three aspects of public value framework. Moore (1994) linked CBA as an evaluation tool for public value creation and found technical problems have dominated the effectiveness of CBA in assisting public decision making (p. 299). This research tries to look at the link between CBA and each section of the public value framework as a whole. It analyses how CBA supports public decision making in relation to public value creation. Public value, according to Kelly et al. (2002), can be created through ‘services, laws regulation and other actions by the government [public decision makers]’ (p.4).

This project links CBA as a decision making tool with public value framework as **means** and **ends** of decision making to consider the following conceptual question. *How effective is CBA in assisting public decision makers in developing public decision making which enables the creation of public value?*

4.2 Research Questions

Looking at the theoretical debate and practicalities, the effectiveness of CBA in decision making which creates public value remains unclear. In terms of practicalities, looking at specific examples of regulatory decision making, research consistently shows low compliance of completing CBA. The Australian situation has similar conditions. In terms of compliance on regulatory impact assessment, it is quite high, but it did not show compelling evidence that it is in line with the quality of RIA that has been conducted by agencies. When the implementation of CBA for regulatory decision making (required as part of best practice regulation requirement) is not effective, then public decision making on a wider scale might be questionable.

This raises important questions. How do public managers perceive the value of CBA in their decision making? More specifically do public managers perceive CBA as a useful tool in assisting their decision making? Therefore, this study aims to examine the usefulness of CBA in assisting decision making process by public managers. In doing this research, there are three questions that will be assessed. These are: (1) Does CBA help public managers develop a valuable public decision? (2) Is CBA an effective tool for managers in gaining legitimacy/support from the authorizing environment? and (3) Does CBA enhance operational capacity? This study tries to answer the research

questions about the effectiveness of CBA in public decision making using public value framework which will be linked to ethical, political and methodological issues. It also recognises challenges in practice.

4.3 Research Methodology

This study uses qualitative research in the form of a case study. Case study is chosen because it is valuable for 'refining theory and suggesting complexities for further investigation' about CBA and public value framework and helping to 'establish the limits of generalization' about the use of CBA in public decision making (Stake 2003, p.156). Furthermore, case study is considered an indispensable method for in-depth viewing of social life (Hessler 1992, p. 195). The data used in this study are both primary and secondary. Primary data was gathered through interviewing selected respondents (current practitioners), and secondary data was collected from relevant reports and documents.

The reason for choosing interviews is because an interview allows understanding of the meaning and mechanism of social and human behaviours and phenomena. Hessler (1992) argues that gathering data through interviewing will be 'a means of observing social action or subjectively meaningful behaviour' (p.136). The interviews were performed in person using a semi-structured approach as this gives flexibility to add questions that seem appropriate or omit unnecessary questions in response to actual conditions of respondents in each institution. Interviews capture what respondents (public managers, professional) think about the effectiveness of CBA in public decision making.

The respondents of this study were selected from departments of the Australian Federal Government that are required to prepare RIS (OBPR 2008, p.26). The number of respondents from each department differed accordingly to availability and willingness to be interviewed. In addition I collected and analysed relevant reports and documents made available by the OBPR either via its website or provided in hard-copy.

Looking at the Australian Federal Government, it is not easy to discover how extensively CBA is used in decision making processes. Therefore, to start with, this project tries to look at the implementation of RIS. CBA is part of RIS; however, there

have not been many RIS conducted, and not all of them use CBA. Conducting research at each department would be very difficult given the constraints of this project, and is not feasible given the differences in use of the tool. Therefore, just two departments were chosen: the Department of Infrastructure, Transport, Regional Development and Local Government (DITRDLG) and the Department of Environment, Water, Heritage and the Arts (DEWHA). These two departments are also interesting as their areas of policy are those most analysed in the literature. Infrastructure is usually considered an area in which CBA is most likely to be suitable, but this is not the case in environmental decision making. Therefore, focusing on these departments would allow important themes identified in the literature to be considered.

To gain a better understanding of the context of the research, I undertook interviews with public managers in the OBPR as the regulatory body which supervises the implementation of best practice regulation requirements. To provide some insurance against current practitioners' potential unwillingness to critique the tool and current approach, I also interviewed ex-public servants/retired practitioners.

This section has explained the link between CBA and public value strategic framework. The analytical framework shows that CBA has been used to measure the public value creation but it has technical problems in the implementation. This research broadened its scope, by looking at the link between CBA and each aspect of public value strategic framework.

Case Study: Cost Benefit Analysis in Australian Context

As discussed in section 4, this project will look at the use of CBA in two departments: Department of Infrastructure, Transport, Regional Development and Local Government (DITRDLG) and Department of Environment, Water, Heritage and the Arts (DEWHA). Prior to the interviews in these departments, I undertook interviews at OBPR to gain a clear understanding about the purpose and implementation of CBA as part of RIS. I also interviewed some professionals who had work experience with or as public managers. There were nine interviewees: two from OBPR, two from DITRDLG, one from DEWHA, one non-government economist, and three professionals who had experience work with or as public managers.

5.1 The Office of Best Practice Regulation (OBPR)

OBPR is a regulatory body which has two main roles (1) assisting the department and agencies to meet best practice regulation requirements and (2) monitoring and reporting on compliance of departments and agencies with best practice regulation requirements (OBPR 2007, p.12). In support of these roles, OBPR provides training and technical advice to departments and agencies about CBA to assist them to fulfil RIS requirement. RIS documents should be prepared by departments and agencies when they plan to propose a regulatory decision. RIS contains seven steps as explained in section two.

OBPR's staff (11 September 2009) state that the benefit of conducting CBA analysis is fulfilling best practice regulation requirement, otherwise regulatory proposal cannot proceed to decision makers.⁷ It is also a source of evidence. By doing CBA the department will be able to provide evidence that their proposal is worthwhile and will produce net benefit for society. Government will also benefit because it need only focus on a policy which brings greater net benefit to society, enabling them to pursue allocative efficiency. From OBPR's perspective a sense of challenge emerges related to

⁷ In Australian context, decision makers refer to Cabinet, the Prime Minister, Australian Government ministers or other delegated decision makers (OBPR 2007, p. xii).

problems that might usually occur about the availability of data which then influences the quality of analysis.

...CBA should be looked as a tool...and can be used in various places in policy development... CBA to me is not a full blind formal CBA, but as a CBA framework... if they [public managers] are not an economist, they might do formal CBA a little bit in combination with non-formal ...it is a sort of structural approach to thinking about how to analyze problems.... also another problem that we face is data constraint that policy officers might not have... [OBPR1 – 11 September 2009].

Despite many problems faced by departments, it is argued that CBA in itself is a valuable process. By examining what determines the costs and benefits, decision makers are encouraged to consider different approaches to achieve the objectives. OBPR (2007) argues that ‘even qualitative descriptions of the pros and cons associated with a contemplated action can be helpful’ (p. 124)

5.2 The Department of Infrastructure, Transport, Regional Development and Local Government

The DITRDLG has a role in providing advice to the Minister and delivers a variety of programs on behalf of the Australian Government. In providing policy advice, program and regulations, DITRDLG is responsible for a wide range of areas including: infrastructure, transportation security and safety, aviations and airports, maritime, regional development and local government (DITRDLG’s website 2009).

Looking at the scope of DITRDLG, it seems that the department is likely to use CBA for their decision making through the Bureau of Infrastructure, Transport and Regional Economics (BITRE). BITRE is a division which is responsible for helping other divisions to provide analysis including CBA. Based on OBPR Report 2007-08 (p.27-8), it is evident that DITRDLG is also one of the departments that routinely implements RIS/RIA (see Appendix 1). It is not the purpose of this research to investigate how the CBA has been conducted or the quality of analysis. However, using that information, and considering that CBA is part of RIS, it can be inferred that DITRDLG is familiar with the process of implementing CBA.

DITRDLG's staff repeated that (14 September 2009) the use of CBA is also part of a requirement to comply with National Guidelines for Transport System Management in Australia (2006) for appraisal initiatives. In the guidelines, CBA is required as a tool for project appraisal. The respondents indicated that their departments use CBA (to some extent) in their decision making process, especially for regulatory decisions which have significant impact on social welfare. It is also required by OBPR.

In terms of public value creation, respondents agreed that, to some extent, CBA helps in pursuing institutional objectives, especially in terms of economic efficiency. CBA has made the choices available more explicit. As the departments use tax as their source of funding for their projects, they have to be able to ensure that the use of tax-payers money is efficient. However, in practice they cannot ignore the fact that public decision making is in the political sphere, often dominated by conflicting interests. In some cases, the authority that is responsible in decision making overrides CBA recommendation.

[CBA] indicates the economic efficiency impact of a project improve resource allocation...also it is considered as structured approach. It is a discipline in which people think about what the impact of a project... even if the decision is to implement a project with poor benefit-cost ratio...at least they gone through this process...and there is a decision of a project made which is poor in terms of benefit-cost ratio [but it is conducted] because [it] achieves other objectives...[DITRDLG Manager1 – 14 September 2009].

In terms of operational capacity, respondents mentioned that the department is limited in doing CBA internally due to lack of capacity. This is because CBA needs specific knowledge and skills. However, this problem can be solved through outsourcing, and the role then involves only assessing/analyzing the CBA report that has been prepared by consultant. Resolving competing analysis that occurs is usually done by the decision makers and become a political concern.

In terms of ability to gain legitimacy and support, respondents argued that if they at least fulfill the requirement, the proposal will gain legitimacy and support from OBPR as being best practice. Therefore, a regulatory decision making proposal can proceed to decision makers.

In relation to other departments it is also easier to gain support and legitimacy when they can provide evidence that their proposal is worthwhile implementing. For instance, the proposal will provide high social net benefit to society. CBA is used mainly for internal purposes and not necessarily published. Respondents argued that when the proposal has gone to OBPR and is discussed in Parliament, it will be open to public and stakeholders can then raise their concerns.

5.3 The Department of Environment, Water, Heritage and the Arts

The DEWHA is responsible to develop and implement national policy, program and legislation to protect and conserve Australia's environment and heritage as well as promote Australia art and culture. However, this research mainly focuses on the environmental area.

DEWHA is an interesting case because in the literature scholars argue that CBA is not an appropriate tool for public decision making especially for environment, health, and public safety. However, DEWHA appears to see this differently. Based on OBPR Report 2007-08, DEWHA has implemented RIS for one proposal (see Appendix 1).

During the interview (25 September 2009), the respondent said that DEWHA implements CBA as part of best practice regulation requirement. The Department on occasions also uses CBA when assessing individual policies and programs. As part of Environment Protection and Biodiversity Conservation (EPBC) Act requirements, proponents will often submit a CBA for various aspects of the proposed project. This is assessed by the Department which then provides advice on the whole proposal. From the interview it is clear that public managers in DEWHA think CBA is a useful tool. This is not just because CBA is part of best practice regulation requirement, but also because it provides a model of rationality for decision making.

In DEWHA, public managers use CBA in their decision making process for more practical reasons: CBA provides evidence in negotiations.

We are aware the debate and also arguments about ... and environment is something 'priceless'. However, this brings difficulties when we negotiate with other departments ...we cannot provide compelling evidence ... and often when we cannot provide value for environmental impact [of a₂₁

proposed policy], ...other departments will value it zero [DEWHA Manager – 25 September 2009].

A similar argument was raised by Macdonald, Director of Heritage Office, New South Wales Department of Planning (n.d.) who stated ‘CBA will remain an important tool for heritage managers...as an accompaniment to funding request’.

In terms of public value creation, respondent argued that CBA helps in pursuing institutional objectives. This is because, to some extent, a decision made by DEWHA should consider economic benefits for social welfare. It is difficult to find a policy which is not purely related to economic benefits for society as one of their objectives. Therefore, CBA as an economic analysis is useful in helping decision makers analyze alternative decisions that will be made which can contribute to social welfare improvement.

If we look at [Australian] Federal Government objectives ...economic objective almost always is one of priority ... [DEWHA Manager – 25 September 2009].

However, in practice, many interests influence decision making since public decision making cannot ignore political issues. In some cases, CBA can be overridden by decision makers.

In terms of operational capacity, the respondent stated that DEWHA has lack of human resources capable of undertaking CBA; therefore, DEWHA usually relies on external consultants and only assesses/analyses the CBA report prepared by consultant. When competing analysis occurs the final selection is up to the political decision maker.

In terms of ability to gain legitimacy and support, respondent agreed that CBA is a useful tool. As respondent argued, in relation to other departments, it is easier for DEWHA to gain support and legitimacy when they can provide evidence that shows a proposal is worth implementing; for instance, the proposal will provide high social net benefit to society. Often CBA is used for internal purposes only when dealing with policies and specific programs or projects. However, if CBA is required as part of RIS then it will be made public when the legislation is tabled in parliament.

5.4 Views from the outside

To avoid biased information due to position constraint, interviews with four people with extensive work experience as or with public managers in the Australian government were useful to balance this study.

All respondents, had a common view that even though in theory CBA is useful and it is required by OBPR, the implementation of CBA is still limited (Interviews 29 September, 2 October, 6 October 2009). It is difficult for people outside the government to know whether public managers (decision makers) conduct CBA as part of their decision making or not. This is the case even for regulations that might bring significant impact to society and use significant taxpayer funding. For instance, in the case of National Broadband Network (NBN) when the government has stated that no CBA has been, or will be, undertaken of this decision (Ergas & Robson 2009, p. 4).

[In Australia] there is very little transparency...those are published... often do not tell you very much. How they [public managers] come up with costs and benefits. They [public managers] don't disclose CBA of projects that are not accepted. So you do not know whether the projects that are accepted have higher net benefit compared to project that not accepted. There is very... very little transparency. ...RIS statement is a type of CBA but very few RIS contain CBA. ...most are general description of options and some assessments of why government preferred one option. [It] is often very bias...[listed unbalance between strengths and weaknesses] ... written after decision is taken ... [Professional1 – 29 September 2009].

One respondent argued that it seems the use of CBA by public managers is utilized when they would like to reject a project. If they think they have to make a policy decision, they do not consider the use of CBA. Even under best practice regulation the use of CBA is not clear. A project can still proceed without proper RIS (including CBA) if the government wants it to. The government may argue that the project will have ex post evaluation. However, in practice there is no clear evidence that the government/department will do the ex post evaluation. Even though the government did the evaluation, it cannot be criticized because there were no comparison standards (ex ante analysis) for the actual performance.

A respondent (interview 2 October 2009) said that based on his experience and understanding, in public decision making decision makers do not usually pay much

attention to complex analysis. They are more likely to focus on how to 'sell' the policy decision to the public. In order to convince public, they do not necessarily need a complex analysis (such as CBA). This is because, people might not really understand about the analysis itself.

Looking at all the interview results, this research found a wide range of information that needs further analysis. The information gathered also represents a balanced source of information as it draws on perspectives from within and outside departments. In the next section, information gathered from interviews will be combined with information from documents and reports that are related to each department for a comprehensive analysis.

Analysis

This section analyses the effectiveness of CBA in assisting public decision making in the Australian government. The section begins by analyzing the implementation of CBA in the Department of Infrastructure, Transport, Regional Development and Local Government (DITRD LG) and the Department of Environment, Water Heritage and the Arts (DEWHA). It continues by analysing the effectiveness of CBA in assisting public decision making using public value framework.

6.1 The implementation of CBA in Australian public decision making

As indicated previously, it is not easy to identify the role of CBA in public decision making. One possible way is through analysing the implementation of RIS. This is because CBA is part of RIS. RIS is a document prepared by a department/agency responsible for a regulatory proposal, especially those that have significant impacts on business, individuals or the economy. RIS documents contain evidence that [seven] key steps have been taken as part of best practice regulation requirement. It includes assessment of the costs and benefits of each alternative decision (OBPR 2007, p.27).

As stated by Minister of Finance and Deregulation to the Parliament in the House of Representatives on 17 March 2008, the implementation of best practice regulation requirement remains mandatory for all Australian government departments/agencies (OBPR 2008, p.2).

6.1.1 The Department of Infrastructure, Transport, Regional Development and Local Government (DITRD LG)

Based on interviews and information gathered from the DITRD LG website, it seems that this is a department likely to use CBA extensively in decision making process. This is also indicated in OBPR Report 2007-08. DITRD LG has prepared nine adequate RIS, the highest among governments departments. The existence of BITRE, which is responsible for assisting departments in preparing analysis, including CBA, supports this. The implementation of CBA within DITRD LG is also part of compliance to the

Australian Transport Council which released National Guidelines for Transport System Management in Australia. In the guidelines, CBA is considered as a tool for project evaluation. CBA is a useful tool because it helps public managers to improve resource allocation and achieve economic efficiency from their decision making.

Even though public managers acknowledge that CBA has limitations; for instance, in terms of valuing environmental implication or lack of focus on distributional income; it does help public managers to do structural thinking and use discipline to analyse likely consequences of a proposed decision. Therefore, for DITRDLG it seems there is no ethical problem in implementing CBA as a decision making tool. The use of CBA is also beneficial in gaining support from OBPR and helps to provide evidence for decision makers. However, whether a decision is made based on CBA or other analysis, it becomes a subjective decision of decision makers.

In terms of operational capacity, research is divided into (1) operational capacity to undertake CBA and (2) operational capacity to use CBA in decision making. In terms of the former, DITRDLG can rely on BITRE. However, looking at the wide range of areas covered by DITRDLG and also based on interviews (14 September 2009) it seems that there is a problem concerning staff who able to do CBA. In addition, there is methodological problem; for instance, in selecting discount rate. BITRE argues that the appropriate discount rate is long-term government bond rate, the risk free rate (interview 14 September 2009; BITRE 2005, p.15). Treasury or OBPR presents different argument about the appropriate discount rate. To overcome this BITRE usually uses sensitivity analysis to include all possible discount rates. Data availability might also be another concern in policy decisions related to environmental aspect (i.e. building road passing through endanger species area). In terms of capacity to use CBA in decision making, very little information can be gained from interviewing public managers. It seems they are reluctant to comment. However, it is acknowledged that sometimes decision makers can override proposed decision based on CBA.

6.1.2 The Department of Environment, Water, Heritage and the Arts (DEWHA)

The implementation of CBA in DEWHA is an interesting example. It shows a different perspective compared to the literature where objections on the implementation of CBA mainly come from environmental, health and the human safety area. In DEWHA, the use of CBA, in addition to fulfilling requirements from OBPR is considered a useful tool because it provides a model of rationality in decision making and a more transparent methodology for assessing different policies or projects.

DEWHA is aware of ethical debates about the use of CBA in environmental area. However, DEWHA uses CBA because it is a useful tool to show the importance (in monetary terms) of their policy, especially in relation to funding requests. When DEWHA cannot provide 'explicit' value on their proposal, another department usually values it zero. From this argument it seems that the use of CBA is for more practical (operational) rather than conceptual reasons. CBA is a useful tool for gaining legitimacy and support from OBPR and other departments. Similarly with DITRDLG, the use of CBA is mainly for internal purposes of DEWHA.

Looking at the ability to undertake CBA, it seems that DEWHA has more problems than DITRDLG. DEWHA have a lack of human resources able to undertake CBA, therefore they rely heavily on external consultants. In addition, incommensurability problems and other methodological problems, such as discount rates and data availability are more likely to exist in DEWHA. In terms of using CBA to assist decision making, this is the role of decision makers who were inaccessible.

It seems that both departments consider CBA a useful tool for assisting public managers in their decision making. DITRDLG seems relatively more able to undertake CBA internally because they had less difficulty compared to DEWHA. However, it also seems that in both departments is used mainly for internal purpose and used less for engaging legitimacy and support from society.

6.2 The effectiveness of CBA in assisting public decision making based on public value framework

To analyze the effectiveness of CBA in assisting public decision makers, this section uses public value framework by Moore (1995). Firstly, it assesses the effectiveness of CBA in developing public decision which is substantively valuable for citizens. Second, it assesses the effectiveness of CBA in helping public managers gain legitimacy/support from authorizing environment. Third, it assesses effectiveness of CBA to develop operational capacity for decision making.

6.2.1 Does CBA help public managers develop a valuable public decision?

In relation to public value, conceptually, as supported by respondents, it can be argued that CBA is a useful tool in public decision making. It helps public managers to achieve economic efficiency because it will help to allocate scarce resources to a decision that brings highest net benefits (welfare) to society. Looking at the Australian experience, the use of CBA in public decision making is not controversial. There is no open rejection of the use of CBA. Public managers consider it a useful tool to help them achieve organisational objective (public value creation). This supports the argument from Sen (2000) who states 'CBA is a general discipline which is developed based on some foundational principles, which are not all together controversial' (p. 931).

This is also evidenced by the use of CBA as part of RIS for best practice regulation requirement. Ethical problems mainly occur in areas of environment, health and public safety, but looking at DEWHA it seems they fully understand that CBA is just a tool which is neutral in terms of ethics. Finally, decision makers should weigh up ethical issues and other values separately. This would be a fair decision as expecting CBA to move beyond economic efficiency would be unfair.

However, in practice whether the use of CBA will be able to provide 'valuable decision making' is also related to other aspects of public value framework. As argued by Gains and Stoker (2009), to know whether public managers deliver public value requires a political engagement between all stakeholders and public managers at all stages of policy process (p.440). This is because in order to make a valuable decision, decision

makers should not only consider that 'they are doing the right thing', but also need to consider having 'to do it in the right way' (Kelly et al. 2002, p.6).

Therefore, to ensure that a public policy made by decision makers is the same as what citizens want, they need to communicate through open process. This is because public value cannot be developed and may be destroyed when decision makers make wrong choices about: the need to be satisfied, the strategies taken to satisfy the selected needs and the process taken to produce and deliver the services (Spano 2009, p.335).

6.2.2 Is CBA an effective tool for public managers in gaining legitimacy and support from the authorizing environment?

From the perspective of gaining legitimacy and support, CBA theoretically, as agreed by respondents, can support public managers because it provides evidence and justification for public decisions. This is in line with the Australian condition where public managers are required to provide explicit justification (evidence) for their public decision. As noted by some scholars, evidence-based policy is in high demand in Australian public policy (Banks 2009b, p.1; Banks 2009a, p.2; Neylan 2008, p.12; Head 2008, p.1).

However, since the implementation of CBA is mainly for internal purposes (inter/intra department and OBPR) it is hard to judge whether it is able to gain legitimacy and support from society. It could be argued that the decision has been tabled in Parliament; therefore, it is open to public. However, in fact it is difficult to find documents about RIS (including CBA). As pointed out by Productivity Commission (2009) that transparency is still a problem as it is difficult to get access to get RIS [including CBA] from departments (p.338; Ergas & Robson 2009, p.42).

This contradicts government promises that a policy decision will be made based on rigorous CBA to ensure the highest economic and social benefits to the nation as well as the promise that decision making will be conducted with transparent process at all stages (AG 2008-09, p.15). Lack of transparency has increased scepticism from society indicated by some respondents (interview 29 September 2009). It seems that public managers only use CBA when the analysis can support policy decisions that they

want to produce. This is in line with some arguments that CBA is used to justify a decision that has already been made (Banks 2005, p.10; Serpell 2007, p.14).

Therefore, in Australian context, it seems that the implementation of CBA has been used to gain support within government (departments and OBPR), but has not been used to gain legitimacy and support from society. The use of CBA has not been transparent to the public; this might decrease public trust. As Kelly et al. (2002) argued 'trust is at the heart of the relationship between citizens and government' (p.17). Decreasing trust might be detrimental for the legitimacy and support in the long run. In addition, 'individuals in a society were the only ones who could decide whether public policy results were valuable or not' (Moore 2006, p.94).

6.2.3 Does CBA enhance operational capacity of public decision making?

Conceptually, as agreed by respondents, CBA can improve operational capacity for public decision making. By using CBA, public managers will be able to allocate public resources to public policy (project) which produces highest net benefits to society. CBA is also a discipline which shows strengths and weaknesses of policy alternatives. However, to make a good CBA requires time and hard work (Hahn & Tetlock 2008, p.78). Therefore, to be able to improve operational capacity in decision making the use of CBA should be treated not just as ticking a box, but as a real process facilitating knowledge of the advantages and disadvantages of each alternative policy available (Ergas & Robson 2009, p.5).

Comparing the Australian context with the above conceptual explanation, it is difficult to make a strong argument that CBA enhances operational capacity in public decision making. This is because, in fact, the implementation of CBA in public decision making might be limited and it is difficult to know how public managers use CBA in decision making process publically. Therefore, this section's analysis focuses more on operational capacity to undertake CBA rather than operational capacity to utilize it. However, it can be argued that operational capacity to undertake CBA influences the capacity to use it for decision making process.

Looking at DITRDLG and DEWHA, both departments acknowledge there are limited public managers who have capability to undertake CBA. Even though they can outsource to private consultants, this leads to other potential problems, in terms of independence of the consultant, to CBA result. Lack of available people capable of understanding CBA might have serious consequences for the use of CBA as a decision making tool. This is because decision makers might be trapped into following a CBA result without seeking further meaning about the assumption behind that result. Apart from lack of human capability, there is also problem related to methodological (technical) difficulties. DEWHA, because of its characteristic, (it is responsible for environment, water, heritage and art areas) faces incommensurability problems in valuing costs and benefits. Both DITRDLG and DEWHA have methodological (technical) problems in terms of deciding appropriate discount rate and also problems on data availability. OBPR, as regulatory body, acknowledges these problems.

The operational capacity problems to undertake CBA properly might be because of a lack of transparency and because there is no incentive or punishment that can discipline the implementation of CBA as part of RIS. This condition encourages public managers (decision makers) to take pragmatic action. Therefore, CBA is just ‘pseudo-scientific authority [tool]’ to rationalize justification (Davies 1997, p.209). Even worse, CBA is used to justify predetermined decision rather than analyse alternative decisions in decision making process.

Using the public value framework, conceptually CBA is an effective tool in supporting decision making. It can help public managers achieve organization objectives (develop something valuable: economic efficiency, use taxpayers money wisely). However, the effectiveness of CBA in supporting decision making to make something valuable is related to other aspects: gaining legitimacy and support from the authorizing environment as well as support from good operational capacity.

In the Australian context, the effectiveness of CBA in assisting public decision making is questionable. This is because public managers ignore transparency by keeping the use of CBA internal. In the short term, this might not have major implications; however, in the long run it will be detriment to public value creation because lack of transparency might decrease public trust. In addition, methodological (technical) problems also

contribute to ineffectiveness of CBA in assisting public decision making. Lack of people who are able to undertake CBA has weakened the effectiveness of CBA in enhancing operational capacity for public decision making. Unless serious attention is given to these problems, there might be serious consequences for public value.

Conclusion

Looking back to the research question, this study intended to reveal the effectiveness of CBA in assisting public decision making. In analysing the effectiveness of CBA in assisting public decision process, this research has used public value framework. Conceptually, CBA is a useful tool for assisting public decision making because it helps public managers determine a valuable decision, in terms of economic efficiency. This tool is also beneficial to provide evidence which is useful for gaining legitimacy and support from an authorizing environment. CBA is also effective in helping public managers consider their operational capacity to deliver a decision. This is because CBA helps to show strengths/advantages and weaknesses/disadvantages of each policy alternative.

In practice, by looking at Australian experience, the effectiveness of CBA for assisting public decision making has been shaped in a pragmatic way. The tool has been limited for the purpose of passing best practice regulation requirements and for internal purposes only. From public value framework, keeping the result of CBA for internal purpose only does not help public managers gain legitimacy and support from external stakeholder (society). In the long run, hiding CBA from public scrutiny will decrease trust and legitimacy. This problem has arisen in situation when researchers have conducted CBA which disagrees with government decision, but then published it. Public managers might not be able to develop a valuable decision when public trust is absent.

In terms of helping public managers improve operational capacity, there are two aspects that have been demonstrated. First is the ability to undertake CBA. In practice, to be able to conduct CBA properly there are methodological problems that should be solved. Another problem related to the ability to undertake CBA is lack of qualified people. This condition cannot be separated from problem of transparency which leaves public managers free from public scrutiny and might lead to less motivation to learn. In addition, there is lack of incentives or punishment in place which encourage public managers to comply with best practice regulation requirement, of which CBA is a part. Lack of transparency also makes it difficult for this research to analyse the second

aspect of operational capacity, the ability of public managers to use CBA in assisting their decision making.

This research outlined the two significant elements: conceptual and practical. From conceptual perspective, this study has extended the relationship between CBA and public decision making using public value framework. This research shows that CBA conceptually is a useful tool in assisting public decision making. It also shows that public value framework can be used to analyse the effectiveness of CBA in decision making. This study is able to separate problem of CBA as a tool and public managers as users of CBA. From practical perspective, this research shows potential problems with the implementation of CBA as decision making tool for assisting public managers. Due to this finding, the Australian government could take appropriate action to improve the implementation of CBA in public decision making. This research brings an early warning about potential problems that might occur when CBA is used in pragmatic way.

CBA is a useful and powerful tool, but the users should be aware of its limitations. Each department has different characteristics and capacity which also brings different limitations to using CBA. In using CBA as a decision making tool, more attention should be paid to how the tool is used properly rather than continuing the debate about whether CBA is a proper tool, or not, for public decision making. As argued by Hanley and Shogren (2005) 'CBA was never meant by most economists to be a stand-alone decision making tool' (p. 27). CBA is just a tool which helps decision makers consider one important aspect of public decision making - efficient allocation of resources.

CBA as a decision making tool is useful to increase the degree of rationality in content and process of decision making. However, this might not guarantee freedom from political intervention in policy process. As argued by Carroll (2008), 'policy making - whether or not it is referred to as regulation making- is an intensely political process' (p.61). Making the use of CBA transparent to public scrutiny will avoid the abuse of it. This research puts CBA in a context, recognizing the usefulness of CBA in supporting public value creation while understanding that improper use of CBA might be detrimental to public value.

This study was conducted by looking at two departments at Federal level. Future research could be conducted by expanding the number of departments assessed. In order to obtain clearer picture about the effectiveness of CBA in assisting public decision making, it would also be useful to conduct similar research at State level in Australia.

Appendices

Appendix 1: List of RIA/RIS prepared by DITRDLG and DEWHA for the period of 2007/2008

RIA/RIS Prepared by DITRDLG for the period 2007-08

No	Title regulatory proposal (Bill/Legislative Instrument)	Description of regulatory proposal	Decision
1	Aviation Legislation Amendment (International Airline Licences and Carriers' Liability and Insurance) Bill 2008	Reform of licensing arrangements for international airlines operating in Australia	RIS adequate
2	Vehicle Standard (Australian Design Rule 21/00 – Instrument Panel) 2006 Amendment 1	TTMRA/ADR review –TTVS No.21 –Standards for instrument panels	RIS adequate
3	Vehicle Standard (Australian Design Rule 42/04 – General Safety Requirements) 2005 Amendment 1	Exhaust outlets and wheel guards	RIS adequate
4	Vehicle Standard (Australian Design Rule 23/02 – Passenger Car Tyres) 2007	Amendment to specify requirements for new pneumatic tyres	RIS adequate
5	Vehicle Standard (Australian Design Rule 33/00 – Brake Systems for Motorcycles and Mopeds) 2007	Brake systems for motorcycles and mopeds	RIS adequate
6	Vehicle Standard (Australian Design Rule 46/00 – Headlamps) 2006	Amendment to allow the use of light emitting diodes headlamps	RIS adequate
7	Vehicle Standard (Australian Design Rule – Definition and Vehicle Categories) 2005 Amendment 3	New definition for twinned wheels	RIS adequate
8	Vehicle Standard (Australian Design Rule 59/00) 2007	Standard for omnibus rollover strength	RIS adequate
9	Vehicle Standard (Australian Design 43/04 – Vehicle Configuration and Dimensions) 2006 Amendment 1	Ground clearances	RIS adequate

RIA/RIS Prepared by DEWHA for the period 2007-08

No	Title regulatory proposal (Bill/Legislative Instrument)	Description of regulatory proposal	Decision
1	South-east Commonwealth Marine Reserve Network	Proclamation of 1 Commonwealth reserves, including the Apollo Marine Reserve	RIS adequate

Source: OBPR 2008, Best Practice Regulation Report 2007-08, the Office of Best Practice Regulation, Department of Finance and Deregulation, Australia

Appendix 2: List of Interview Questions

Interview questions to the OBPR's Public Managers

1. How important is Regulatory Impact Statement (RIS) in decision making for departments/agencies? Why?
2. What are the relationships between Cost-Benefit Analysis and Regulatory Impact Statement (RIS)?
3. What are benefits of conducting Regulatory Impact Statement and what are consequences for not conducting Regulatory Impact Statement for departments/agencies?
4. What are the objectives of using CBA in decision making process for departments/agencies?
5. What are the benefits and limitations of using CBA in decision making process for departments/agencies?
6. Does CBA improve decision making for managers in each department/agency? How/why? How do we know this?
7. Does the OBPR take into account the different characteristics of different departments when using CBA? Does this impact on the implementation of CBA?
8. Under what circumstances is CBA not used? Why?
9. What happens if the department/agencies do not comply with best practice regulation requirement?
10. Why did the number of RIS decrease based on OBPR Report 2007-08)?
11. Does the implementation of RIS/CBA is mandatory?
12. How should we put CBA in decision making process?
13. Does the RIS publically accessible?

Interview questions to DITRDLG and DEWHA Public Managers

General questions

1. Does your institution uses CBA for decision making? Why?
2. What are the benefits of using CBA in the decision making process?
3. What are the limitations of using CBA in the decision making process?

Public value (strategic goal)

1. Does CBA better enable decision making linked to project strategic objectives/ departmental objectives?
2. As CBA mainly focuses on economic efficiency, how do you consider other values (e.g. equity, effectiveness, adequacy, responsiveness, appropriateness) in your decision making?
3. How do you weigh up CBA (as economic analysis) with other analysis (considerations: e.g. political, social, environmental etc) in decision making?

Legitimacy and support

1. Do you use CBA voluntarily or are you required to? By whom?
2. Is CBA helpful or not helpful for gaining support in decision making? i.e. does it help in building a case for managerial actions? How?
3. Do you publish the findings of CBA? Why or why not?
Where is it published?

Operational capacity

1. Is CBA undertaken by internal staff or by external consultants?
2. How useful is CBA in assisting the decision making process?
3. How are competing analyses reconciled e.g. if differences emerge between CBA and other decision making tools?

Notes:

The questions asked to people outside government who had experience work with or as public managers is modified from this list of questions. However, the substance is similar to this list of questions.

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