

UNIVERSITY OF SOUTHERN QUEENSLAND

**THE APPLICATION OF MANAGEMENT
ACCOUNTING FOR ACHIEVING PUBLIC SECTOR
OUTCOMES-BASED PERFORMANCE MANAGEMENT
IN QUEENSLAND – A CASE STUDY**

BY

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Abstract

This research investigates the application of management accounting practices (MAP) for achieving public sector outcomes-based performance management (OBPM) in Queensland under its *Managing for Outcomes* (MFO) policy. It identifies specific principles that support a performance-based environment in which outcomes-based performance is measured and for which costs are determined. This research also investigates whether there is support for the proposed MAP and examines the extent to which MAP is adopted. The research approach provides a complementary view of what should be happening with that which is actually happening in relation to MAP in the agency selected for this research.

An insider research approach was undertaken for this research, drawing on a process of reflexive awareness and careful judgement to reframe, as theoretical knowledge, the tacit knowledge that has become deeply segmented in the Queensland public sector. A mixed-method approach was used to limit the risk of the insider researcher losing objectivity and to ensure the standards of academic rigour. The approach utilised a group of critical practitioners, in a co-operative style of reflective inquiry, to co-create knowledge in the development of the theoretical principles. Document analyses and a case study including interviews with participants from two work units operating within one Queensland Government agency were conducted for the purposes of gaining knowledge of the Queensland Government's MFO policy, the intended-MAP and the MAP-in-use, in particular performance measurement and cost management. An independent interviewer was employed wherever possible with the aim to limit possible insider researcher bias during the interview process.

Findings suggest a significant gap exists between what the objectives of the MFO policy is seeking to achieve and the operational level at which this policy operates. Consultations with the critical group of practitioners and evidence from an analysis of documentation provide support for the theoretical principles. However, evidence from the case study interviews indicates a limited application of these principles. The "performance story" of the agency lacks logical links between the services it delivers and the government outcomes to which it contributes. The use of measures is not uniform throughout the agency. The agency's ability to assess the efficiency and effectiveness to which it delivers services is limited by the fact that it reports mainly output oriented cost information. Thus, any extolments that the agency has improved their cost of delivery are largely rhetoric rather than anything real based on sound costing information. With an apparent compliance focus by the agency, the implication of these findings is that the costing approach adopted is one

that is more likely to be based on its needs to secure sufficient resource allocations through budgeting processes of the Government.

Opportunities exist to examine the broader social, cultural and political contexts within which Queensland government agencies operate. The findings of this study suggest that the technical merits of the proposed MAP that should be adopted by the Queensland government agencies are not sufficient to motivate agencies to adopt them. Future research that gains a fuller understanding of this aspect seems to be a logical progression.

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List of Acronyms and Abbreviations

ABC	Activity Based Costing
ABM	Activity Based Management
AHD	Annual Hours Delivered
CCH	Client Contact Hours
CEO	Chief Executive Officer
CM-1	Cost Management Principle 1
CM-2	Cost Management Principle 2
CMP	Cost Management Practices
DBM	United States Department of Budget and Management
ERP	Enterprise Resource Planning
FTE	Full-time Equivalent Employee
GAO	U.S. General Accounting Office
GPR	Government Performance and Results Act (US)
IFAC	International Federation of Accountants
JCPAA	Joint Committee of Public Accounts
MAP	Management Accounting Practices
MFO	Managing for Outcomes
MPS	Ministerial Portfolio Statement
OBPM	Outcomes-based Performance Management
OECD	Organisation for Economic Co-operation and Development
OESR	Office of Economic and Statistical Research
PIP	Priorities in Progress Report
PM-1	Performance Measurement Principle 1
PM-2	Performance Measurement Principle 2
PMP	Performance Measurement Practices
PPB	Planning-programming-budgeting system
QAO	Queensland Audit Office
QPS	Queensland Public Service
RP-1	Research Problem 1
RP-2	Research Problem 2
RQ-1	Research Question 1
RQ-2	Research Question 2
RQ-3	Research Question 3
RQ-4	Research Question 4
RQ-5	Research Question 5
SCRCSSP	Steering Committee for the Review of Commonwealth/State Service Provision
SDC	Service Delivery Centre
SSC	State Services Commission
FAAA	Financial Administration and Audit Act 1977
VPAEC	Victorian Public Accounts and Estimates Committee

Statement of Original Authorship

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution.

To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

Signature: _____

Date: _____

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CHAPTER 1 INTRODUCTION

1.0 Background

Contemporary management accounting practices (MAP) are important toolsets for Queensland public sector agencies as they implement the outcomes-based performance management (OBPM) framework under the government's Managing for Outcomes (MFO) policy.

The Queensland public sector, like other public sector agencies both nationally and internationally, is continuing with the implementation of a performance management framework that is outcome-based and which focuses on the services delivered by public sector agencies and to whom those services are delivered. With a focus on performance, the MFO policy aims to improve the efficiency, effectiveness and accountability of government service delivery.

The aim of this research is to investigate the application of management accounting for achieving public sector OBPM in Queensland under its MFO policy. A conceptual framework is developed for implementing the MFO policy within the Queensland public sector environment to which MAP may be applied. The underlying MAP are examined and specific principles are developed that drive a performance-based environment in which outcomes-based performance is measured and for which costs are determined. This research also determines whether there is support within the Queensland Government agency selected for this research for the theoretical principles developed. The extent to which the MAP proposed in this research are adopted and applied by the case study agency in order to achieve the objectives of the "*Managing for Outcomes*" policy is also investigated.

1.1 The Nature of Public Sector Outcomes-Based Performance Management

The National Commission of Audit Report (Commonwealth of Australia, 1996: p 2) identified a number of reasons for the public sector to undertake performance management reforms.

A number of factors have come together to make reform a burning issue. Key among these are: ... a perception that public sector performance was inferior to that of the private sector; ... citizen demands for improved responsiveness, choice and quality of service; ... Put together, these pressures have resulted in a ... re-examination of public sector management and performance.

The effort to improve the quality of public sector management is not new. As early as 1910 the New York Bureau of Municipal Research developed budgetary systems based on performance measures. The Hoover Commission recommended a switch to performance-based budgeting for the national government in 1949. In 1952 the term “alternative budgeting” (Lewis, 1952: p 49) was developed as a means to place a relative value on each of the alternatives for spending government funds (Pitsvada & LoStracco, 2002: p 53). Program outcome measures were integral components of the analyses required by the planning-programming-budgeting system (PPB) in the 1960s. During the late 1970s, performance-based budgeting techniques were revisited through the concept of zero-based budgeting, which involved building a series of alternative budgeting options from zero (Giankis, 2002: p 37). Early performance measurement practices fulfilled two objectives. First, they served to communicate information to management about the nature and status of work completed and how this contributed to improved work productivity. Second, they served to support the budgeting process, by revealing information about needs and program effectiveness (Williams, 2003: p 649).

Public sector performance management matured during the 1990s with several governments, including New Zealand, Australia, United States, and Canada incorporating it into strategic planning and budgeting, in order to achieve better alignment among organisational resources, effort and direction. Osborne & Gaebler (1992) wrote about the need to transform the public sector through the adoption of entrepreneurial techniques. These authors suggested that government should be more “market-like” and that citizens should be regarded as customers. They suggested solutions to improve the public sector through the introduction of concepts such as competition and cost reduction as a means of increasing its efficiency and effectiveness.

From the early beginnings of public sector performance management the concentration has been on the efficiency and effectiveness of government. Public administrators have focussed on “linking resources to intended governmental objectives (what is now called performance budgeting), results of governmental efforts (outcomes), objectively chosen expectations (benchmarks), and fixing the organisation to do better (productivity improvement)” (Williams, 2004: p 133).

The current OBPM concept is an extension of these earlier ideas and centres around the terms “managing for performance”, “managing for results” and “managing for outcomes”. The key ingredients of an OBPM framework are the relationships of the costs of government programs to resources, and the achievement of an approved plan (Pitsvada & LoStracco, 2002: p 69; Williams, 2003: p 654). Governments, both nationally and internationally, are under great pressure to improve the service they provide to the community and to ensure that this service is aligned to achieve their desired outcomes. Furthermore, public sector agencies are being held more accountable for the differences that their programs make to the community. This re-examination of performance has led to the development of a performance management framework which is outcomes-focused. The public sector’s justification for moving in this direction is based on the identified shortfalls associated with the quality of management information produced by cash accounting techniques and in particular the uncertainty about the full costs of outputs (Evans, 1995; Mellor, 1996; Commonwealth of Australia, 1996; Management Advisory Board (MAB), 1997; Webster, 1998).

Significant contributions to understanding the OBPM process have come from studies undertaken in the areas of (i) the adoption of an outcomes-focused approach to improving the accountability of government in delivering services that meet government goals (Friedman, 1996; Wholey, 1999; Caudle, 2001; Behn, 2003; Modell, 2005; Moynihan, 2006); (ii) the challenges and solutions in implementing OBPM (Wholey, Hatry & Newcomer, 1994; Poole et al., 2001; Campbell, 2002); and, (iii) the organisational or contextual factors influencing the implementation of the OBPM (Burns, Ezzamel & Scapens, 1999; Chua & Petty, 1999; Radin, 2000; Dittenhofer, 2001; Hussain & Gunasekaran, 2002; Modell, 2004).

These studies, which are discussed in Chapter 2, are of importance to this research in that they provide detail of prior research on public sector performance management focusing on the purpose of OBPM. These studies also contribute to an enhanced understanding of the objectives of the MFO policy and the relevant issues within the public sector in Queensland. They assist in identifying those principles and factors that contribute to adoption of MAP which support the objectives of the MFO policy.

Several contributions to cost accounting have come from studies undertaken in areas that (i) identify, measure and analyse costs associated with producing products or services as well as the costs that are generated by processes or activities undertaken in the production of products or the provision of services (Goddard & Ooi, 1998; Greasley, 2001); (ii) the comparisons of the traditional costing approaches and contemporary activity-based costing (ABC) method (Kaplan, 1984; Cooper & Kaplan, 1987; Cooper 1988); and, (iii) the potential benefits and possible reasons for failure of ABC implementations (Kennedy & Affleck-Graves, 2001; Kiani & Sangeladji, 2003; Pierce & Brown, 2006).

Much of the research surrounding costing methodologies, particularly ABC, has been conducted in the private sector and primarily in the manufacturing industry (Cooper & Kaplan, 1987; Cooper, 1988; Anderson, 1995). While there are a number of studies conducted in the service or government sector (Rotch, 1990; Antos, 1992; Goddard & Ooi, 1998) there is a limited number that examine costing approaches within an OBPM environment.

These studies are examined in Chapter 3. They are of importance to this research because they provide detail of the models that may be appropriate for calculating the cost of products and services delivered by public sector agencies. Furthermore, they contribute to an enhanced understanding of how costing information may assist agencies in assessing the efficiency and effectiveness of their service delivery.

1.2 The Queensland Model – Managing for Outcomes

The *Constitution of Queensland 2001* provides that Cabinet, consisting of the Premier and a number of Ministers of Parliament, is collectively responsible to the Parliament of Queensland for the performance of the government. Administrative

arrangements allocate portfolio responsibilities to Ministers of Parliament and by and large the structure of government agencies mirrors the core portfolio responsibilities of these Ministers. The ultimate responsibility for the management of an agency rests with the Minister who is assigned the particular portfolio.

The principles of the MFO policy are embedded in Queensland legislation through provisions of the *Financial Administration and Audit Act 1977* (FAAA). The FAAA provides that for each financial year, the Treasurer of Queensland must present an Appropriation Bill to the Queensland Parliament. This Bill provides for appropriation for a financial year to fund the cost of delivering agency outputs in that year. The *Charter of Social and Fiscal Responsibility* (the Charter) sets out the Government's social commitments to the Queensland public, and how the Government will report to the public on the outcomes of its activities pursuant to the provisions of the FAAA. This Charter also sets out the measures against which its performance in achieving these objectives can be measured (Queensland Government, 2004). The Priorities in Progress Report (PIP) is published annually by the Government in accordance with the Charter. The Government regularly publishes PIP to support this Charter and to ensure accountability and transparency for the outcomes of government decisions. PIP is used to inform the community about the impact of the Government's policies and initiatives towards meeting its key policy priorities, and outlines the Queensland Government's commitment to delivering improved outcomes for the community. In particular, PIP discusses performance across a range of qualitative and quantitative performance indicators relating to outcomes experienced by Queensland's communities.

The contributions of each agency's outputs to the achievement of these outcomes are provided for through the development of Ministerial Portfolio Statements (MPS). The MPS, or commonly referred to as Budget Papers, are prepared on a portfolio basis by the individual agencies reporting to each Minister. These statements set out the priorities, plans, output details and financial statements of those agencies. Full details for each agency's output performance plans are also provided in these statements, including published output measures of the quantity, quality, cost, timeliness and, where appropriate, location of services.

The Queensland Government performance management framework is described as an “accountability framework for public sector service delivery ... It represents the whole delivery process - inputs, outputs and outcomes. It defines community outcomes to focus effort across the public sector in delivering services and appropriate results. It identifies the strategic points at which performance is measured and reported to Government and the community” (Queensland Treasury, 2002b: p 1). Under the MFO framework, the Government identifies key areas for particular policy focus. These priorities, which highlight key areas where improved outcomes are sought, set the key direction for government action, which support a set of outcomes and which “set the broad frame for government decision making and funding determinations”. Outcomes represent the dimensions of wellbeing (social, economic and environmental). Outcome indicators and key outcome measures are developed which attach to each outcome and define the parameters within which success in achieving the outcomes will be determined.

Under this framework, Queensland government agencies are required to relate their outputs to a set of agreed government outcomes. “The mapping of outputs to outcomes results in “clusters of outputs” delivered by several agencies and which contribute to a particular outcome” (Queensland Treasury, 2002a: p 1). Links between agency inputs to outputs complete the framework, which assist decision makers in their assessment of whether government services and resources are aligned with the Government’s desired outcomes. The Queensland MFO model provides for the specification of outputs for its agencies such that it (i) describes the type of service to be delivered; (ii) identifies the recipients of the service or activity; and (iii) states the intended result of the activity (Queensland Treasury, 2002a). Output measures are established to assist in the monitoring of output performance.

In the Queensland model, the cause and effect between an agency’s output and its ultimate impact is tracked through performance measures. Queensland Treasury (2002a) has established a hierarchical arrangement of indicators that aim to provide evidence of the impact of outputs on outcomes. It also aims to establish how efficiently and effectively agency outputs are delivered.

1.3 The Research Problem

The aim of this research is firstly to propose the contemporary MAP that should be utilised by agencies to meet the Government's objectives for its MFO policy. A conceptual framework is developed, along with specific theoretical principles that drive a performance-based environment in which outcomes-based performance is measured and for which costs are determined. These principles set out what the researcher expects the findings of the research to be. This research seeks support and possible refinement for the proposed MAP using a mixed-method approach involving:

- Briefings, consultations and feedback with a critical group of practitioners in the development and refinement of the theoretical principles; and
- Analysis of documents relating to the Government's MFO policy, guidelines and legislation.

Secondly, this research gathered evidence of the adoption and application of MAP by one Queensland Government agency. This evidence was collected by conducting:

- An analysis of documents relating to the agency's planning and annual reporting, MPS, costing and performance reports; and
- A case study of the agency and interviews with participants from two work units within the agency.

The research approach provides a complementary view of what should be happening with that which is actually happening in relation to MAP in the agency selected for this research. The implications of the MAP-in-use for the agency are also examined.

It has been more than 11 years since the Queensland Government first implemented its MFO policy as the means to adopt OBPM. The strategy adopted to implement MFO by the Government was to call upon the central agency to persuade rather than coerce the concerned agencies to adopt MFO. Such persuasion focuses on addressing the question of how OBPM can be a better framework that could be used in the assessment of government policies and programs. Agencies are encouraged to document what they are delivering in terms of program outcomes and to document

the methods they use for determining the cost of their programs. The goal to be achieved from implementing MFO is to enhance the accountability of government, as well as to build trust with the Queensland community. Agencies are persuaded to demonstrate a strong interest in having information in which the cost of their programs and services are clearly linked with the stated results of the agency. The researcher was recruited by a central agency in a senior role to influence, assist and advise agencies on their implementation processes. It is implicit in such a role that the researcher is to become a driver of change.

As an employee of the Queensland public service, the researcher soon recognised that agencies tend to view the MFO policy as just one of continual efforts to implement government reform in several forms. As a consequence of these views some agencies behaved somewhat pessimistically about the workability of the MFO policy; while in other agencies various optimistic individuals espoused the positive results their efforts had achieved to date. Consequently, undertaking a research in one's own working environment where there are diverse views concerning the MFO implementation process requires the researcher to maintain credibility while at the same time being an astute political player.

From a theoretical perspective, the researcher (as an employee) originally believed the implementation process to be a reasonably simple one. After all the private sector has been dealing with these concepts for a long time. Agencies would need to consider questions such as what is the purpose of the agency; what services does the agency deliver; and how much do these services cost? How will these services contribute to the achievement of government outcomes? If the service disappears, who in the community is likely to suffer? A broader set of issues facing agencies in implementing the MFO objectives is best described through the following scenario.

Scenario

The safety and wellbeing of children and young people are of significant importance to the Queensland Government. A well managed child protection service contributes significantly to the Government's desired outcomes in protecting children and enhancing community safety.

In recent times the Queensland community has expressed concerns with the child protection system itself in delivering the support and the services required to protect children who are at risk of abuse. In Queensland in 2002–03 there were over 31 000 notified cases of child abuse and neglect. In response to these concerns, the Government has focused on increasing the provision of resources, the development of a new culture of service to children within the agency responsible for delivering services, and the better targeting of existing resources across all relevant agencies to support and protect children.

With community expectations and a government commitment to delivering demonstrable community outcomes, the responsible agency must ensure that its services contribute to the Government's desired outcomes for protecting children and enhancing community safety. The responsible agency is under pressure to demonstrate efficiency and effectiveness in protecting children from harm and efficiency in the use of public funds to help children and families.

The difficulty in doing this is founded in the definition of outcomes in delivering child protection services. Defining outcomes is a difficult endeavour. The range of issues and concerns is immense, including (i) defining what an outcome is; (ii) identifying the outcomes that are important; (iii) identifying those in the community for whom the outcomes are achieved; and (iv) assigning responsibility for particular outcomes.

Difficulty is exacerbated by the reality that stakeholders often hold different views about service effectiveness. Stakeholders are not homogeneous. Children who have been harmed or who are at risk and their families, foster carers, and people who report concerns about children may hold different perspectives (Tilbury, 2002: p 139)

Child protection services, to be effective, must produce positive changes for the community. In achieving this, however, consideration is given to finding new efficient service delivery arrangements from a range of options. For example, services such as screening and monitoring processes in respect to carers and specialised investigative services are required to enforce child protection

legislation. Strategies for children experiencing educational and behavioural difficulties; therapeutic treatment programs for children with severe psychological problems associated with harm, abuse and neglect; and responses requiring alternative care arrangements for children at risk are required. The range of services focused on improving outcomes must be prioritised and resourced adequately to meet identified needs. Making good service delivery choices requires identification and evaluations of various approaches and how the delivery approaches impact on efficiencies and effectiveness.

The agency responsible for managing the child protection system needs to adjust its programs and interventions to reflect the available funding. Agencies operating within the MFO environment require knowledge of costs of service delivery as well as knowledge of what each alternative contributes to achieving the Government's outcomes desired for the community, if assessments of alternatives are to be undertaken.

Quantitatively identifying the service level impacts on the child protection system and more precisely identifying the costs and achievement levels of service options enables the agency to advise the Government appropriately.

The shift in public sector service delivery from a focus on inputs to outputs and outcomes requires the agency to continually assess and refine the processes it uses to allocate available funds. This shift requires it to work continually on translating the Government's desired outcomes into measurable criteria to assess its business. Performance measurement is fundamental to knowing how well the agency is achieving its objectives. A coherent set of performance measures for child protection provides the basis for the assessment of effectiveness in meeting the Government's outcomes for Queenslanders. Mechanisms for costing services and products provide the basis for the assessment of efficiencies in providing child protection.

Source: Department of Child Safety (2004a), Annual Report 2004-05, Queensland Government; Department of Child Safety (2004b), Strategic Plan 2006-10, Queensland Government, Tilbury, 2002.

This scenario raises some significant issues of relevance to the research, including the following:

- In relation to the government's aspirations, for example, to enhance community safety, how do public sector agencies demonstrate that their services contribute to this outcome? A number of public sector agencies jointly contribute to the protection of children at risk from harm. For example, the Police Department is

responsible for providing specialised investigative services to enforce child protection legislation. The Education Department provides services for children experiencing educational and behavioural difficulties; while the Health Department provides therapeutic treatment programs for children with severe psychological problems associated with harm. This implies that the responsibility for ensuring that children are protected from harm is shared. On what basis, therefore, is this shared responsibility distributed amongst these agencies such that each can demonstrate positive changes over time for these children?

- On what basis does the government prioritise those changes which are important to a community who may have varying views of what would be beneficial to the community?
- On what basis may a public sector agency, which is identified as one that provides critical services, demonstrate that these services produce positive changes for children at risk of harm? Do these changes occur over time? For example, it seems reasonable to assume that the psychological health of children, who have suffered harm or abuse, will improve over time from therapeutic treatment programs. How will the agency identify these changes, measure these impacts and demonstrate that the services it delivers contributes to the government's outcomes for protecting children and for ensuring safer communities?
- Where the focus for the agency is on ensuring positive changes for the community, how should the agency prioritise and resource the various service options that it may have for delivering these changes?
- How should agencies demonstrate efficiency in the delivery of child protection services, for example, and the effectiveness of these services in meeting the goal for protecting children from harm?
- On what basis should the agency find and evaluate service delivery options?

These questions point to the need to find ways by which the agency is able to:

- Translate the Government's desired outcomes for community safety and its priorities for protecting children at risk from harm into measurable criteria;

- Understand how the agency may produce positive changes over time for at-risk children and decide on how these changes will be measured;
- Develop a coherent set of performance measures for child protection which will provide the basis for the assessment of effectiveness in meeting the Government's desired outcomes for Queenslanders;
- Determine how each alternative contributes to achieving the Government's desired outcomes; and
- Develop mechanisms for costing services and products to provide the basis for the assessment of efficiencies in providing its services.

The ability to cost government services accurately and measure progress towards achieving objectives requires the application of MAP. In this regard the research problem is stated as:

RP-1	To what extent can contemporary MAP contribute to achieving the objectives of the Queensland Government's "<i>Managing for Outcomes</i>" policy?
RP-2	In the selected case study, involving one Queensland Government agency, what support can be found for the MAP proposed by this research? To what extent are these proposed MAP adopted and applied in order to achieve the objectives of the "<i>Managing for Outcomes</i>" policy?

To add clarity to research problem, RP-1, and to assist in the understanding of the issues to be resolved, the following research questions were formulated.

RQ-1	What contemporary MAP should be applied to an OBPM environment?
RQ-2	Under the MFO policy, what type of outcomes-based performance information should be reported by public sector agencies?
RQ-3	What approach should public sector agencies adopt to establish linkages between its strategic direction and its programs or interventions so that the agency may explain its contribution to desired changes in conditions of the community and its residents and ultimately to the Government's desired outcomes?
RQ-4	What type of costing information is required to be reported under the MFO policy?
RQ-5	Is activity-based costing an appropriate costing model for agencies to use in calculating the cost of its products and services and in assessing the efficiency and effectiveness of service delivery?

1.4 The Motivation for this Research

Traditionally, public sector managers have not been concerned with issues such as costing of services or measuring agency performance in delivering services because information of this type was rarely requested. The traditional public sector financial management platform gave a vertical view of each agency: a view that focused on divisional or departmental blocks of expenditure. This meant that agencies reported only on the resources consumed by work units within the agency. For accountability purposes, managers were held responsible for deviations between actual and budgeted expenditure. The emphasis therefore was on controlling the level of spending of the various work units. The gathering of performance information was rarely considered. The idea of demonstrating an agency's contribution to the achievement of the Government's desired outcomes was not considered. Consequently, accountability for performance lagged behind fiscal accountability (Foltin, 1999: p 45).

The MFO policy is designed to change this emphasis. It is said that “necessity is the mother of invention”¹ and under the MFO policy there is a sense of urgency by government in placing a much greater emphasis on holding managers accountable for both the efficiency and effectiveness by which they achieve their program objectives. Indeed, the emphasis of MFO is to gather performance information, including costs, about the services delivered by agencies in order to better inform resource allocation decisions. The application of MAP is a critical success factor in meeting these requirements (Geiger, 1998; Cunningham & Harris, 2000; Fahy, 2001). Such applications, however, should be theory based [Andrews, 2002 in Frank & D’Souza, 2004: p 206) and as such, plans for implementing MFO cannot be fully developed without due consideration for MAP that agencies should use to support this environment.

Theories of management accounting have evolved from a narrow concentration on providing accurate measures of costs to a broader examination that places greater focus on meeting the information and decision-making demands of management (Birnberg, 2000; Clarke & Tagoe, 2002). MAP, such as performance measurement and costing, has developed to enable the production and use of strategy-related information (Kaplan, 1984; Johnson & Kaplan, 1987; Chenhall & Langfield-Smith, 1999). As such MAP may be applied to determine whether the agency’s objectives have and are being met and the extent to which performance accountability has been achieved, including accountability for the costs of service delivery. The experience or otherwise that an organisation may encounter in adopting contemporary MAP is dependent on how it identifies and accommodates the issues that it faces.

The aim of this research is to determine the contemporary MAP that should be applied to meet the objectives of the Queensland Government’s MFO policy. The aim is to develop a conceptual framework for implementing the MFO policy within the context of the Queensland public sector environment to which MAP may be applied. This research aims to identify specific principles that support a performance-based environment in which outcomes-based performance is measured

¹ An old adage often attributed to Plato, *The Republic*, Greek author & philosopher in Athens (427 BC - 347 BC) refer to <http://www.quotationspage.com/quote/33942.html>

and for which costs are determined. This research also investigates whether there is support for the proposed MAP and to examine the extent to which MAP is adopted.

In examining this, the connectivity between the nature of public sector OBPM and the MAP underpinning the objectives of MFO are examined. The organisational or contextual factors are also identified to determine those factors critical to the adoption and application of MAP to achieve the objectives of the MFO policy. How these concepts are connected provides motivation for this research, and Figure 1.1 shows how these concepts are conceptually connected.

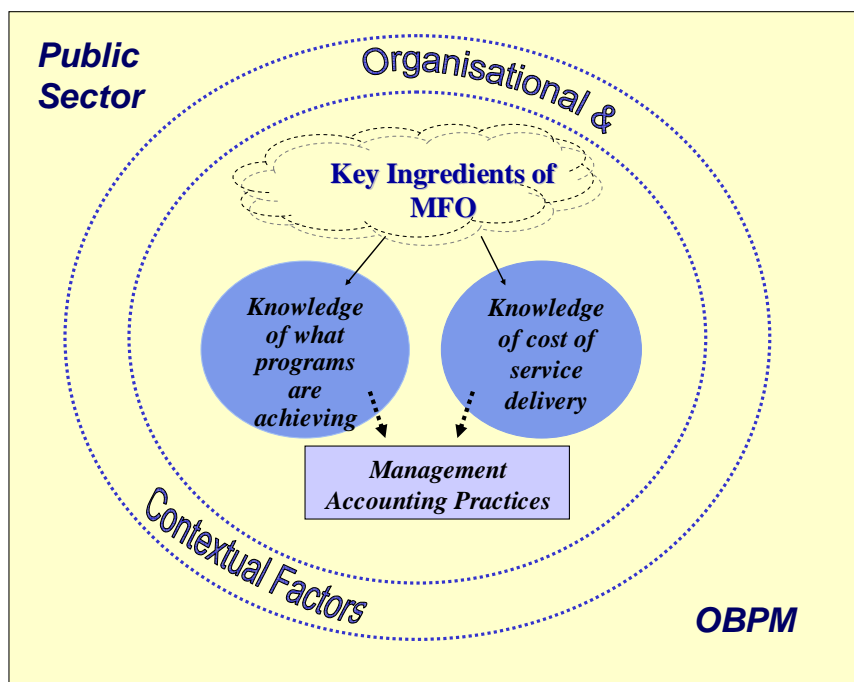


Figure 1-1 Conceptual view of the connectedness between MFO and MAP

The majority of studies in the area of management accounting have been conducted within the private sector. For example, a body of research focuses on implementation success of activity based costing (Shields, 1995; McGowan & Klammer, 1997; Chenhall & Langfield-Smith, 1999). Other research focuses on the perceived benefits for organisations associated with the use of information (Swenson, 1995; Franco & Bourne, 2003; Cavalluzzo & Ittner, 2004) and the extent to which systems provide information (Mia & Chenhall, 1994).

While there is demand in the public sector to adopt the best practices, procedures and approaches of the private sector to ensure they contribute to more effective performance and service delivery (Osborne & Gaebler, 1992), the implicit

assumption that these are transferable to the public sector may be questionable. There is an apparent lack of fit between private sector and the public sector notions of performance measurement and accountability (Ittner & Larcker, 1998; Dixon, Kouzmin & Korac-Kakabadse, 1998; Barton, 1999; Rocheleau, 2000). This research provides an opportunity to test these theories in a different organisational context and investigate the application of principles contributed by previous studies to determine their level of usefulness for the Queensland public sector.

There have been a significant number of studies conducted in the areas of public sector OBPM (Franklin, 1999; Mwita, 2000; Radin, 2000; Hoque & Moll, 2001; Weinstock, 2002; Modell, 2005; Moynihan, 2006) and management accounting (Geiger, 1998; Foltin, 1999; Geiger, 1999a & 1999b; Fabian, 2000; Behn, 2002; Carlin & Guthrie, 2001; Geiger 2001; Martinson, 2002; Williams, 2004; Pizzarella, 2004). Theories about the nature of the public sector OBPM have significant application to the implementation of MFO within the Queensland Government. Studies identifying issues surrounding the implementation of OBPM within several public sector jurisdictions are of importance to this study in that they contribute to an understanding of factors critical to its successful implementation. Such public sector OBPM theories also suggest strong linkages with MAP through the identified need for measuring the performance of the public sector. Studies of the nature of cost accounting are also important because of the identified need for accurate costing of government services. However, the connectivity of OBPM and MAP has rarely been addressed. The bridging of this gap provides the motivation for this research.

This research provides an opportunity to contribute to an enhanced understanding of these issues within the public sector in Queensland and identify those principles of management accounting necessary to find solutions for the Government in the implementation of the MFO policy. An enhanced understanding of the issues is made possible by virtue of the fact that the researcher is an insider and as such a member of the organisational systems and communities in the Queensland public service. The researcher has insights from her experiences of implementing MFO. As the researcher is close to the research topic and knows it well, she has a high stake in the research outcomes (Brannick & Coghlan, 2007). The researcher can also follow

through the work beyond the end of the dissertation to ensure a commitment from agencies to self-learning from the research (Coglan & Brannick, 2005).

1.5 Contribution of the Research

This research makes the following contributions to literature relating to the application of MAP in the public sector that supports the objectives of OBPM and in particular, the Queensland Government's MFO policy:

- Researchers who adopt a more traditional positivist approach to describe and explain a particular social phenomenon usually do so with the researcher taking the role of a detached observer. There are extremely limited situations where positivists' do research from an insider position. The contribution that this research provides stems from the fact that the insider researcher has knowledge of Queensland public sector's everyday life; the everyday jargon; and is able to see beyond the objectives that are merely window dressing. This insider researcher approach contributes to the literature by affirming its theoretical academic value within the different research methods. It contributes to the literature by recognising the subtlety and critical potential of a 'practical' agenda in research.
- This research provides normative statements of what should be happening with a positivism approach on that which is actually happening in relation to MAP in the agency selected for this research. The research contributes to the literature by its assessment of a complex subject material that calls for creative solutions to common problems. Studies of such reforms have tended to fall into two camps: the pessimistic literature and the more optimistic literature (Moynihan, 2005: 214). Pessimistic literature suggests little or no success (Wildavsky, 1984; Radin, 2000; Downs, & Larkey, 1986; each in Moynihan, 2005). More optimistic literature cites the possibility of success from case studies and an appealing theory of how the public sector can become more results focused (Aristigueta, 1999 in Moynihan, 2005). This research contributes to the more optimistic literature by delving into the organisational issues that might inhibit success. This research provides opportunities for practitioners to adopt sound theoretical principles in successfully implementing OBPM.

- It contributes towards a general theory of management accounting by investigating its application to the public sector. Much of the research in management accounting relates to the private sector. This research provides the opportunity for future research to test the theory in a different organisational context.
- It provides a foundation for public sector agencies to assess the extent to which the Government's MFO policy is being operationalised according to the identified need to measure public sector performance and to accurately cost services.
- As applied research, it contributes to the further implementation of the Queensland Government's MFO policy by providing a basis by which agencies may adopt and apply MAP.

1.6 Structure of the Thesis

The researcher employed a structured approach to presenting the thesis.

Chapter 2 provides a comprehensive literature review of earlier contributions on OBPM and performance measurement in particular. This chapter also discusses the technical and methodological aspects of OBPM and examines performance management frameworks developed by various public sector jurisdictions. Chapter 2 also focuses on principles and practices related to performance measurement.

Chapter 3 presents the theory underpinning contemporary costing with specific focus on principles and practices related to relevant cost concepts, the bases for cost allocations and methods of cost measurement. Chapter 3 also considers the technical issues facing agencies in their efforts to demonstrate the efficiency and the effectiveness of its services. Prior research that investigates the context within which cost management is adopted and applied by the public sector is also explored.

Chapters 2 and 3 identify MAP best suited for public sector agencies operating within an OBPM environment. Jointly, Chapters 2 and 3 investigate the research questions relating to the research problem, RP-1 and inform the examination of the extent to which MAP should contribute to achieving the objectives of the Queensland Government's MFO policy. A conceptual framework is developed for

implementing the MFO policy within the Queensland public sector environment to which MAP may be applied. These chapters identify specific principles that drive a performance-based environment in which outcomes-based performance is measured and for which costs are determined. These principles guide the data collected in this research.

Chapter 4 describes the research methodology adopted. In the first place this chapter describes the bases on which the researcher sought support and possible refinement for the proposed MAP developed in Chapters 2 and 3 using a mixed-method approach involving:

- Constructive feedback relating to the theoretical principles developed in Chapters 2 and 3 from a critical group of practitioners; and
- Analysis of documents relating to the Government's MFO policy, guidelines and legislation.

Secondly, Chapter 4 describes the bases on which the researcher gathered evidence of the adoption and application of MAP by one Queensland Government agency. The mixed-method research approach adopted involves:

- An analysis of documents relating to the agency's planning and annual reporting, MPS, costing and performance reports; and
- A case study of the agency and interviews with participants from two work units within the agency.

Chapter 4 discusses the bases on which the particular case study and the participants were selected. It describes the framework underpinning the data analysis and interpretation. It defines the data collection activities that generate qualitative data which contributed to the triangulated analysis needed to address research problems RP-1 and 2 and research questions RQ-1 to RQ-5.

Chapter 5 presents the results of the research for the problems, RP-1 and RP-2 with focus on the proposed methods and principles of OBPM and, in particular, performance measurement, developed in Chapter 2. Chapter 5 describes a detailed analysis of the data so as to determine firstly, whether there is support for the

theoretical principles, namely PM-1 and PM-2. It describes evidence relating to the legislative nature of the MFO policy, and the guidance provided by the Queensland Government's central agencies to line agencies in undertaking OBPM including strategic planning and performance measurement. Chapter 5 also describes the constructive feedback relating to the theoretical principles, PM-1 and PM-2, provided by a critical group of practitioners. Secondly, Chapter 5 describes evidence of the extent to which the proposed methods and principles of OBPM are adopted and practiced by the Queensland Government agency selected for this research. It describes evidence relating to the analysis of the agency's planning and annual reporting documents, MPS, and performance reports as well as analysis of interviews conducted with participants selected from two work units within the agency. The perceptions of the OBPM-in-use by the agency along with the implication of these perceptions and the implications of the findings of the case study for the agency are discussed.

Chapter 6 presents the results of the research for the problems, RP-1 and RP-2 with focus on the proposed methods and principles of cost accounting developed in Chapter 3. Chapter 6, in the first place, describes the evidence collected from the analysis of documentation relating to policy statements, guidelines, and audit reports for the purposes of seeking support for theoretical principles, CM-1 and CM-2. It also describes the constructive feedback relating to these principles from a critical group of practitioners. Secondly, Chapter 6 describes the evidence collected to determine the extent to which the proposed methods of cost accounting are adopted and practiced by the Queensland Government agency selected for this research. It describes evidence relating to the analysis of the agency's cost reports, as well as analysis of interviews conducted with participants selected from two work units within the agency. The perceptions of the cost accounting practices of the agency along with the implication of these perceptions and the implications of the findings of the case study for the agency are discussed.

Finally, Chapter 7 summarises earlier chapters of this thesis and draws conclusions to the research problem and associated research questions. Conclusions drawn from examining the research questions relating to research problem, RP-1, and the findings from investigating research problem, RP-2 are provided. This chapter

identifies contributions to the research literature, implications for practice, and opportunities for further research. The limitations of this research which are recognised by the researcher are discussed, in particular, the risks associated with the research methodology, the process for analysing data and the practical aspects of undertaking the study. Based on the research outcomes, Chapter 7 also provides recommendations to guide agencies in meeting the objectives of the MFO policy and in adopting appropriate MAP, namely performance measurement and cost accounting, to assist it to meet these objectives.

The structured approach to presenting the thesis is shown in Table 1.1.

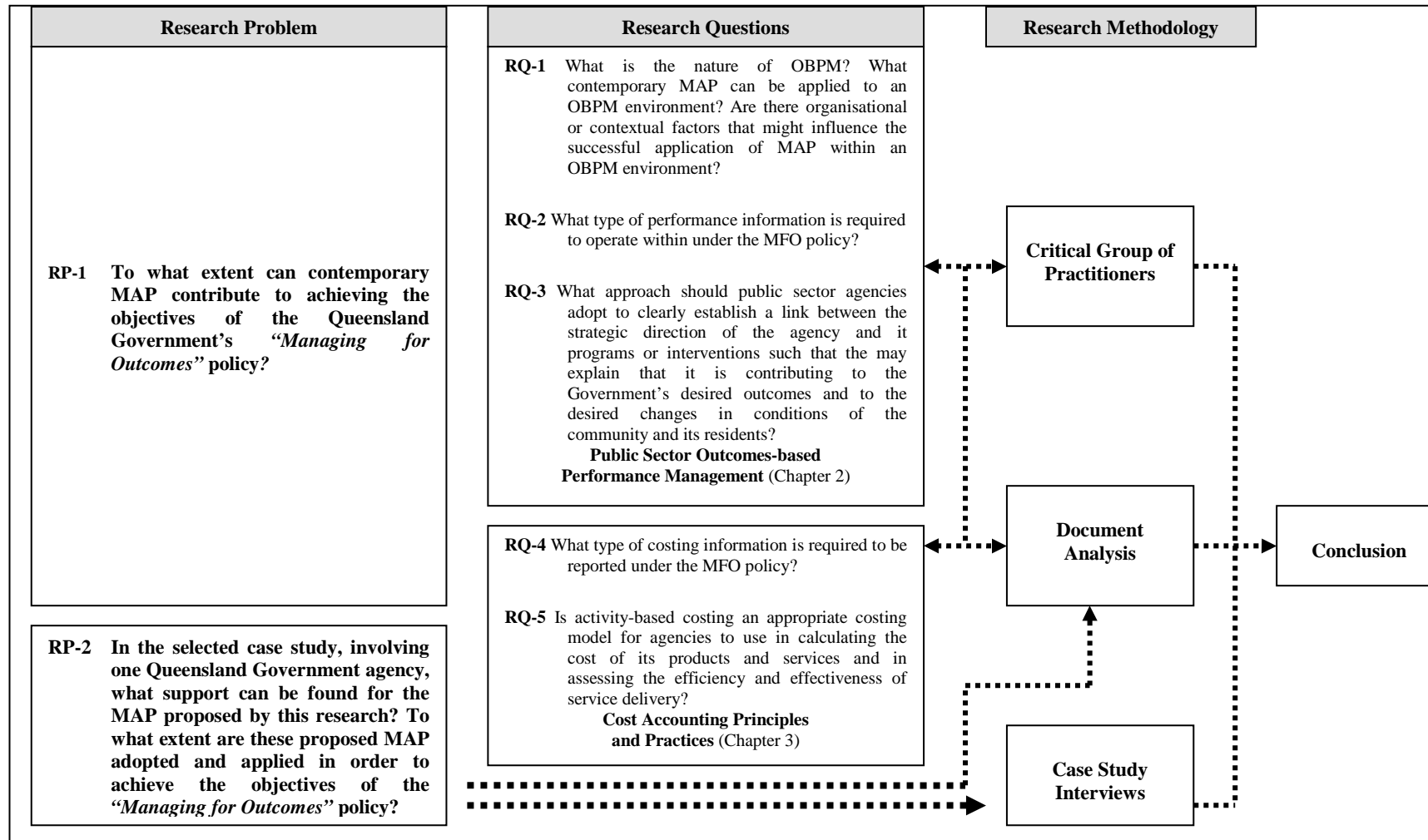


Table 1-1 Structure of Thesis

CHAPTER 2 PUBLIC SECTOR OUTCOMES-BASED PERFORMANCE MANAGEMENT

2.0 Introduction

The Queensland public sector is adopting management techniques associated with a performance management culture. A range of initiatives have been implemented across OECD member countries that aim to improve the accountability of the public sector and “as these ... are maturing, the need is arising to go beyond the rhetoric ... to look at the practicalities of implementing a results focus” (OECD, 2002: p 3).

The connectivity between the nature of public sector OBPM and the underlying MAP is examined in this chapter and in Chapter 3. The theory of the public sector OBPM is dealt with in detail in this chapter. Issues relating to the adoption of OBPM are also examined. Such issues as identified in Chapter 1 include how public sector agencies should:

- demonstrate that the services they deliver produce positive changes for the community and hence contribute to the Government’s desired outcomes; and
- measure the impacts on the community from its services as well as measure the quality of its services.

Challenges facing the public sector in these areas are also reviewed.

This chapter, along with Chapter 3, contributes to investigating research problem, RP-1 and informs the examination of the extent to which MAP can contribute to achieving the objectives of the Queensland Government’s MFO policy.

As shown in Table 2.1 (which is extracted from Table 1.1), this chapter reviews prior research, discusses the technical and methodological aspects of OBPM and critically examines performance management frameworks developed by various public sector jurisdictions.


Research Problem RP-1	
RP-1 To what extent can contemporary MAP contribute to achieving the objectives of the Queensland Government’s “ <i>Managing for Outcomes</i> ” policy?	
	
<p>RQ-1 What contemporary MAP should be applied to an OBPM environment?</p> <p>RQ-2 Under the MFO policy, what type of outcomes-based performance information should be reported by public sector agencies?</p> <p>RQ-3 What approach should public sector agencies adopt to establish linkages between its strategic direction and its programs or interventions so that the agency may explain its contribution to desired changes in conditions of the community and its residents and ultimately to the Government’s desired outcomes?</p>	<p>Public Sector Outcomes-based Performance Management (Chapter 2)</p>

Table 2-1 Purpose of Chapter 2

This research develops a conceptual framework for implementing the MFO policy within the Queensland public sector environment to which MAP may be applied. It identifies specific principles driving an outcomes-based performance environment, and which guide the data collected in this research. The theory detailed in this chapter contributes to an enhanced understanding of the objectives of the implementation of the MFO policy in Queensland and provides guidance in researching the application of these practices in the agency selected for this study.

2.1 Related Literature - Outcomes-Focused Approach to Public Sector Performance Management

The Queensland public sector has been very clear about the importance of an outcomes-focused approach to the management and accountability of government. This section examines prior research and guidance relating to the outcomes-focussed approach to public sector performance management.

An outcomes-focussed approach to public sector performance management represents a significant change to the way government programs are managed. More attention is paid to the way government programs are contributing to outcomes and

less on simply delivering outputs, carrying out activities and implementing processes. In this context, outcomes are defined as the often long-term effects of public sector service delivery on citizens or the society at large in terms of well-being and economic, environmental and social welfare. Outputs are commonly described as the goods and services delivered to specific groups of citizens or areas of society; while activities and processes refer to the steps involved in delivering outputs.

A concentration on outcomes is a central element in public sector OBPM (Wholey & Hatry, 1992; Friedman, 1996; Wholey, 1999; Caudle, 2001). The public sector, nationally and internationally, has become increasingly interested in a performance management framework as a systematic way of representing and communicating strategy, and as a means of providing a way of communicating their priorities to important stakeholder groups, such as the community and clients (Atkinson & Epstein, 2000: p 27). It is well recognised that the traditional approaches of simply increasing the level of resources for public sector agencies have been unsuccessful in finding better ways of achieving more effectiveness from their service delivery (Willoughby & Melkers, 2000; Andrews, 2004). It is suggested that an increased focus on outcomes enables agencies to determine the effectiveness of government programs in meeting community needs and to find ways to improve public sector service delivery. Such a focus improves community confidence in the capability of the government (Caudle, 2001: p 77).

The OBPM process is commonly described as a comprehensive and integrative planning, budgeting and performance management approach that includes the following key elements (Queensland Treasury, 1998: p 5):

- identifying outcomes that the Government desires for its communities and citizens;
- setting clear strategic direction and objectives;
- resourcing and deciding on appropriate delivery options that support expected performance including an integrated budgeting process;
- monitoring operations and measuring results; and
- analysing, reporting, and obtaining feedback on outcomes.

Figure 2.1 illustrates this typical OBPM process for the public sector.

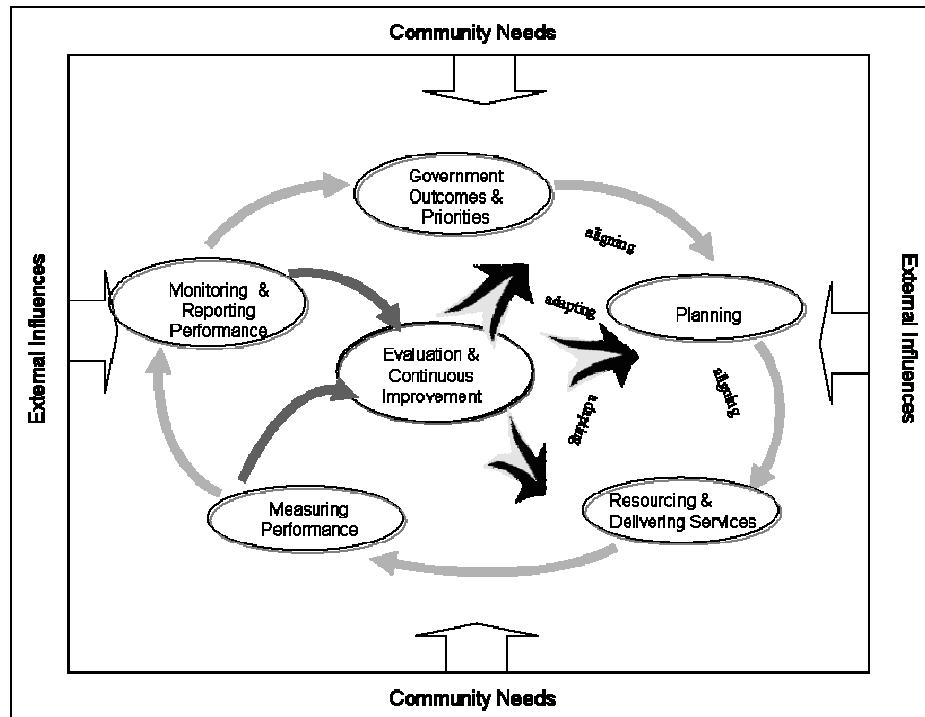


Figure 2-1 Typical OBPM Process
 (Source: Adapted from Auditor General of Canada, 2000)

The planning process of an agency, which involves the gathering of information about the “big picture”, establishes a long-term direction for the agency. That direction is then translated into specific goals, objectives and actions. While the need to draw strong links between performance measurement and strategic direction setting is paramount, the performance management process is incomplete without its integration with resourcing, monitoring and evaluation processes. Evaluation is important because it provides feedback on the efficiency, effectiveness and performance of public sector agencies and the implementation of public policy. It completes the performance management cycle. Feedback received from evaluation leads to improvements, expansions or replacements of government programs. “In essence, it contributes to accountable governance” (OECD, 1999: p 413).

In essence, therefore, the adoption of an outcomes-based approach to managing government services requires public sector agencies to define “what they intend to accomplish, measure performance for, and report on, and use the information for decision making and strengthening accountability” (Caudle, 2001: p 77). The core idea of OBPM is “to use performance information to increase performance by

holding [agencies] accountable for clearly specified goals and providing them with adequate authority to achieve these goals” (Moynihan, 2006: p 78).

Njoh (1994 in Hernandez, 2000: p 32) suggests that for the “outcome-based approach to be useful, the strategic objectives of an agency must be identifiable and clearly definable”. While it has been argued that rational approaches to strategy formulation in the public sector is difficult, if not impossible (Boyne, et al, 2004: p 330), efforts should be made to improve the clarity of identifiable and definable strategic objectives throughout the agency. The development of objectives by planners in isolation from the rest of the agency is inadequate if not confusing to service delivery units of the agency. Consequently, following the identification of the relevant government outcomes to which the agency must align itself, the next step is to set clear goals which are measurable against these outcomes.

To do this, government decisions and controls must focus on outputs and outcomes rather than on inputs and procedures (Wholey & Hatry, 1992; Schick, 1999; Wholey, 1999; Mwita, 2000; Behn, 2003; Modell, 2005). Each of these elements depends on one another and they are not simply “a menu of independent prescriptions” (Moynihan, 2006: p 79). It is the disclosure of outcome data that enhances public accountability – “the end we seek is not *better service* but *better results*” (Friedman, 1996: p 5). This distinction enhances the performance management process because it contributes to a clearer thinking about what government is to achieve and assists in the selection of appropriate strategies to get there. To assist and guide the performance management regime in public organisations, a number of questions must be considered (Bolton, 2003: p 22). Such questions include the following:

- How well does the agency fulfill its mission? How does the agency know that its mission is fulfilled?
- How effective is the agency in supporting that mission?
- How does its performance compare to that of other agencies/jurisdictions? How does it compare to that of the best organisation?

While these questions may guide public sector agencies in establishing a performance management regime, Bolton suggests that the first of these questions is

the most difficult for public sector agencies to answer. It requires an assessment of the nature of the agency's goals: are the goals realistic, challenging, and clearly aligned with the mission and are targets appropriately set, achievable and measurable? As Stinchcomb (2001) notes, if the mission is not well articulated and the pathway to achieving it not clearly outlined, it is impossible to determine why the agency's program produced certain outcomes nor why the outcomes were not achieved. "Accountability is unattainable without clear specification of how the program's activities or intervention are expected to achieve the program goals" (Solomon, 2002: p 392).

The implication, therefore, is that strategic planning is the initial component of performance management and it requires "a disciplined effort to produce fundamental decisions and actions that shape and guide what an organisation is, what it does, and why it does it" (Bryson 1995: p 5). Strategic planning by agencies is the main linking mechanism between the agency's actions and the statewide goals (Moynihan, 2005: p 218).

Practical guidance for implementing the OBPM process is well documented in several jurisdictions (OMB, 1995; GAO, 1996; Queensland Treasury, 1997; SSC, 2002; Campbell Public Affairs Institute, 2002; DBM, 2002; Treasury Board of Canada, 2006). For example, the key steps which agencies in the United States are advised to follow in implementing OBPM are identified by the Campbell Public Affairs Institute (Campbell Institute) (2002). These key steps are depicted in Figure 2.2.

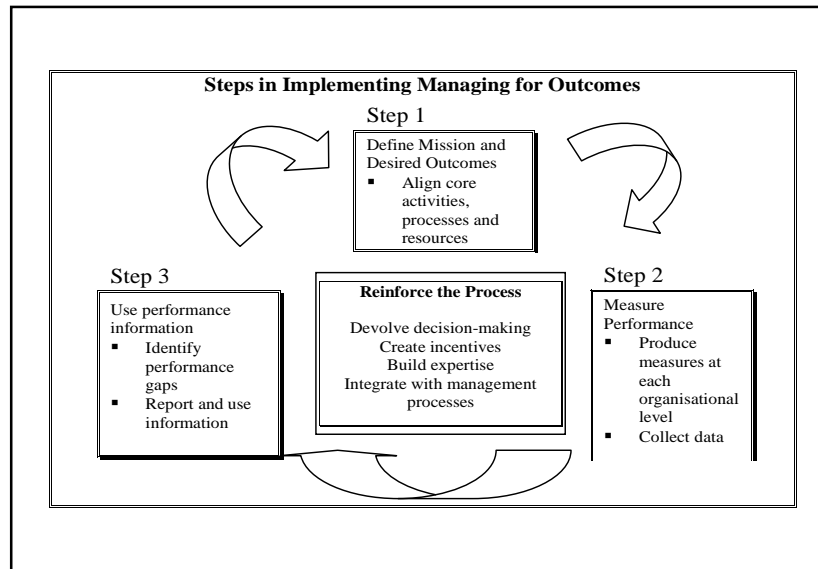


Figure 2-2 Steps in Implementing Managing for Outcomes
(Source: Adapted from Campbell Institute of Public Affairs, 2002)

In implementing the process, agencies are advised that the starting point is to identify the key Government outcomes to which they are best aligned. Second the agency must clearly define its strategic objectives. These determine what is to be measured. Agencies are then guided to use performance information to identify and act upon performance gaps. This is then to be reinforced by a culture which devolves decision making, builds expertise and creates incentives. The New Zealand Government through its Pathfinder Project has also established key steps to guide its agencies through the implementation of key elements of its OBPM process. In this jurisdiction agencies are required to measure outcomes with precision and to identify the relationships between different measures of their core outcomes. Agencies are then required to use performance feedback to drive continuous improvement in major services and business processes (SSC, 2002).

While various jurisdictions publish their own guidance material for agencies (OMB, 1995; GAO, 1996; Queensland Treasury, 1997; SSC, 2002; Campbell Public Affairs Institute, 2002; DBM, 2002; Treasury Board of Canada, 2006), a review of these suggests that the fundamental steps they recommend are similar. These steps encourage agencies to focus on the use of evaluative data to assess the degree to which they have achieved objectives established through strategic planning. However, despite this guidance, difficulties emerge, for example reports of child protection scandals or health services crises, which lead to questions as to whether the agency's mission is achieved. Andrews, Boyne, & Walker (2006: p 52) suggests

that such crises arise from a lack of attention to the issue of performance and from a lack of relevant data. Problems in agencies often begin with their missions: in many cases, agencies are assigned multiple missions leaving them confused (Laurent, 2001: p 10; Henrich, 2002: p 714). This begs the question as to why the adoption of an outcomes-based approach to public sector management continues to present challenges for the public sector (Modell, 2005; Moynihan, 2006).

Outcomes relate to the impact that public sector services have in meeting the perceived need of individuals and communities (Wholey & Hatry, 1992; Boland & Fowler, 2000; Campbell, 2002; Modell, 2005). They “reflect the more indirect and often long-term effects of operations on specific groups of citizens or beneficiaries of public services or society at large in terms of beneficiary well-being and social welfare” (Modell, 2005: p 57). While it is argued that the relationship between agencies’ activities, outputs and the Government’s desired outcomes can be complex and challenging, the achievement of outcomes should be the primary purpose for which an output is delivered and an activity is undertaken. At a broad conceptual level it does not appear difficult to select outcome categories. Most people, for example, want children to grow up in stable and safe family homes and be able to function as productive members of the community. While agreement is more easily reached at the general level of the desires of the citizens of a community, as the process of defining outcomes becomes more specific, the concerns of particular audiences differ.

It is suggested that since agencies have multiple stakeholders with multiple goals, hence multiple accountabilities, a considerable element of judgment or implicit bargaining between conflicting interests inhibits the ability to identify and measure outcomes adequately (Smith, 1995: p 14-15). Thus there remains uncertainty as to what outcomes the agency is trying to contribute towards in the first place (Gianakis, 1996). The long range nature of many government programs and the time-lag before outcomes become observable often means that agencies are less inclined to shift their focus away from activities and towards outcomes (Boland & Fowler, 2000; Greiner, 1996). The fact also that the task of identifying and measuring outcomes is time-consuming (Campbell, 2002) is further exacerbated by the apparent difficulty in isolating the effects of operations when services are produced jointly with other

organisations (Bolton, 2003). The influence of random factors, such as unexpected natural disasters or unexpected challenges within a community that impinge on the timely achievement of outcomes also adds to these difficulties. The existence of these difficulties may make it easy for management to identify a number of possible reasons for not fulfilling its goals (Pitsvada & LoStracco, 2002). These issues often render the very meaning of outcomes and effectiveness potentially changeable and elusive (Smith, 1995; Wang & Berman, 2001) and while it is argued that the adoption and use of outcome indicators can be a useful approach for realising publicly-valued goals, the specification of these in practice is often rare rather than routine (Campbell, 2002).

These commentaries are also supported by empirical evidence which suggests that significant instabilities exist in the way OBPM has been adopted in the public sector (Carlin & Guthrie, 2001; Laurent, 2001; Sample & Tipple, 2001; Campbell, 2002; Gianakis, 2002; Moynihan & Ingraham, 2003; Moynihan, 2006). For example, Carlin & Guthrie (2001) highlight problems in the reporting of non-financial performance indicators in the Victorian budget papers; Campbell (2002) questions the practical utility of outcomes assessment and the degree to which it is taken seriously in the decisions of funders; while Radin (2000) suggests that the OBPM rhetoric has caused it to collide with institutional and political constraints. Additionally, these findings are supported by reports submitted by various public sector authorities. For example, in reviewing the status of OBPM practices, it is reported that the outcome statements used by government are often “too broad and far reaching” (Commonwealth of Australia, 2002: p 42); while “most of the stated objectives that were reported by agencies were expressed in such vague terms as to be of little use managerially and of little use to report actual outcomes against” (State of Victoria, 1999: p 49).

It is also suggested that even where public sector agencies have the capacity to apply OBPM, the merits of OBPM are not powerful enough to replace political support (Public Policy Forum, 1999; State of Victoria, 1999; Ter Bogt, 2000; Radin, 2000; Pitsvada & LoStracco, 2002). The suggestion is that when an agency produces results with which politicians agree, those politicians will support OBPM. However, when the agency produces results with which politicians disagree, then the results

are likely to be ignored. In the end, there is the risk that OBPM becomes more rhetoric than a reality (Gianakis, 1996; Carlin & Guthrie, 2001; Moynihan, 2005). “Elected officials have often given lip service to the rhetoric of [OBPM] but have continued to support decision processes and policies that provide them with political support and a sense of control that allows them to claim credit for whatever change seems to match their political agenda or to support their re-election campaigns” (Radin, 2000: p 132). This observation is not new: Wildavsky (1966: p 303) notes that “political realities lie behind the failure to devise principles for defining programs”. Hence, given the reported technical problems associated with specifying outcomes and objectives, along with the claimed risks of dysfunctional effects associated with reporting on outcome achievements, performance comparisons solely or predominately based on such measures are unlikely to facilitate the quest for managerial accountability (Henrich, 2002). Consequently, the result is likely to be agencies measuring the wrong things and/or failing to measure what is important (Friedman, 2001).

Despite these difficulties there remains a continued interest for the public sector to move beyond the provision of services to the development of programs that target specific outcomes that benefit the community (Ellis, Braff & Hutchinson, 2001). Justification for government programs has become essential for credibility and depends on a sound programming process that clearly establishes a link between theory, the program model and subsequent changes in participating target groups (McKensie & Smeltzer, 1997). When agencies are faced with societal issues or problems that require some public sector intervention, often the issues or problems faced require an approach that centres on making changes to the conditions of the community and/or behaviour of targeted residents. A failure to articulate how programs contribute to these changes means that many programs are dominated by short-term, unstructured activities that do not focus on behavioural changes. In this context an outcomes-based approach to public sector management should involve answering three basic questions: what to change, what to change to, and how to cause the change (Goldratt, 1990).

The question begs, therefore, “What approach should public sector agencies adopt to clearly establish a link between the strategic direction of the agency and the

programs or interventions such that it can explain that it is contributing to the Government’s desired outcomes and to the desired changes in conditions of the community and its residents?”

Section 2.2 proposes an approach that enables agencies to articulate a plausible and logical explanation of how the activities and outputs of its program aim to produce desired outcomes for the community and its residents. Potential challenges and issues relating to this approach are also examined.

2.2 Conceptual Foundation for Outcomes-Based Performance Management Framework

OBPM is focused on tying resources to intended government objectives and the outcomes of government efforts (Wholey, 1999; Williams, 2003). As various jurisdictions advise, agencies are typically required to demonstrate that the outputs they deliver contribute to a set of long-term outcomes defined by the Government. Agencies are then required to link the activities they undertake and the resources required to deliver these outputs (Queensland Treasury, 2002a).

The typical linking process by which this is done is presented in Figure 2.3:

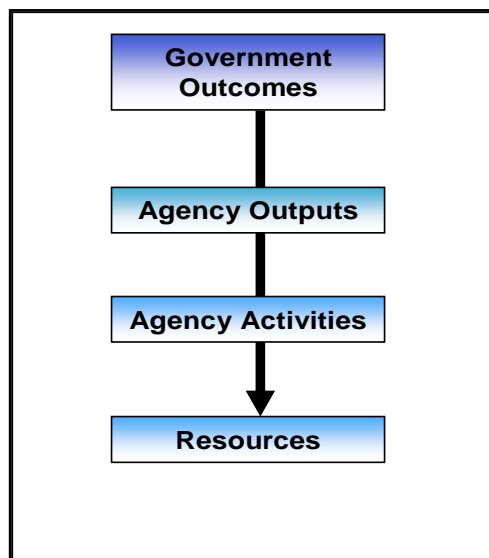


Figure 2-3 Typical OBPM Linking Process
(Adapted Queensland Treasury, 1997)

The way in which agencies might apply this linking process is demonstrated through an example. The public sector agency responsible for the provision of public

housing is funded to provide urban development services to identified areas of the community. A key activity undertaken in providing these services is to redevelop ageing public housing stocks. In doing this, the agency identifies that its urban design strategies contribute toward enhancing the safety of residential areas. Consequently, it links this output to the Government’s desired outcome of creating safe communities. The above linking process may be used as a template by which the agency can demonstrate how its urban development output and its housing construction activity are linked to the Government’s desired outcome, Safe Communities. Figure 2.4 shows how this template may be used.

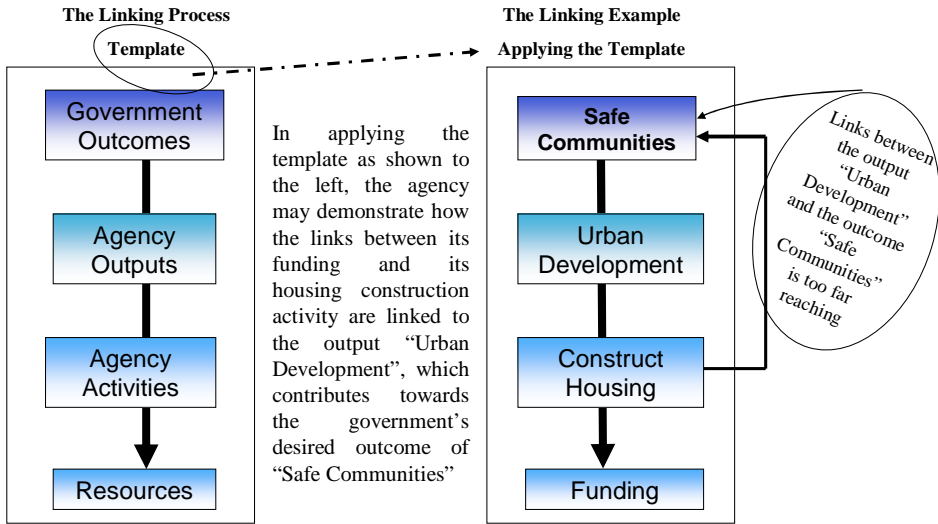


Figure 2-4 Example of Typical Linking Process using a Template
(Developed for this research)

The linking process is designed to communicate to stakeholders how the work of the agency contributes to the government’s desired outcomes. However, as discussed earlier in this chapter, an apparent weakness in this typical linking process is that the link between the government outcomes and the agency output appears “broad and far reaching” (Commonwealth of Australia, 2002: p iv). In other words, it takes a great leap of faith to see how the output, urban development, enhances community safety. Consequently, doubts are raised as to the credibility of this communication.

It is necessary, therefore, to make this link more apparent. This may be achieved by not only documenting the long term outcome that the government wants to achieve, such as ‘safe communities’, but importantly how these outcomes change over time and how the agency’s outputs and activities contribute to these changes (Hatry, 1999). Agencies will then be able to document their progressive achievements in

contributing to these changes. “In the absence of a clear mapping between outputs and government outcomes, it is difficult to determine the cause and effect between actions and impacts” (Queensland Treasury, 2003: p 1). The linking process should involve describing the performance “story” (Behn, 2004) that leads to achievement of desired government outcomes and establishing a logical hierarchy of the means by which the agency’s strategic objectives will be reached and outcomes achieved (Wholey, 1987; Behn, 2003).

An enhanced linking process involves:

- i. cascading government desired outcomes through linking the agency’s strategic objectives to a series of shorter term and intermediate term outcomes expected as a result of delivering the agency’s outputs;
- ii. linking the agency’s outputs to this set of shorter term outcomes through the development of strategies; and
- iii. linking the agency’s outputs to activities and resources through statements of purpose.

Figure 2.5 depicts this enhanced linking process.

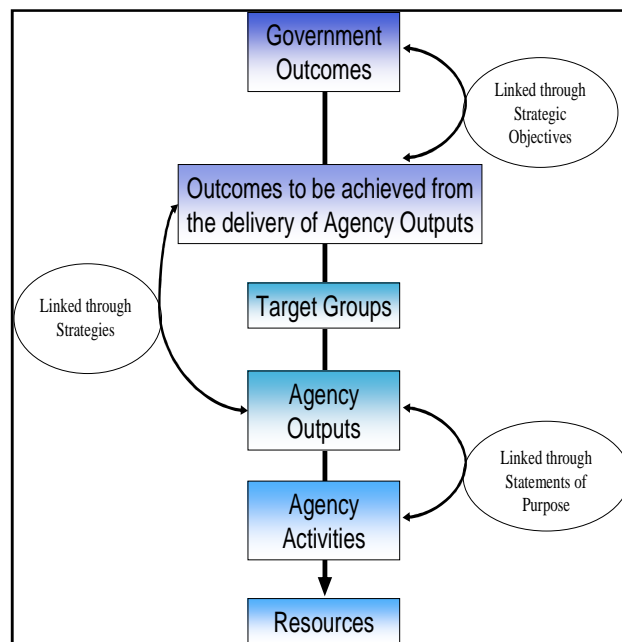


Figure 2-5 Enhanced OBPM Linking Process

How this enhanced linking process is applied may be demonstrated using the same example as that used in Figure 2.4. This enhanced process requires the agency to

develop a series of outcomes that link its output “Urban Development” to the Government outcome, “Safe Communities”. This link is strengthened by describing the changes expected over time from its urban development output. An example of this linking process is shown in Figure 2.6.

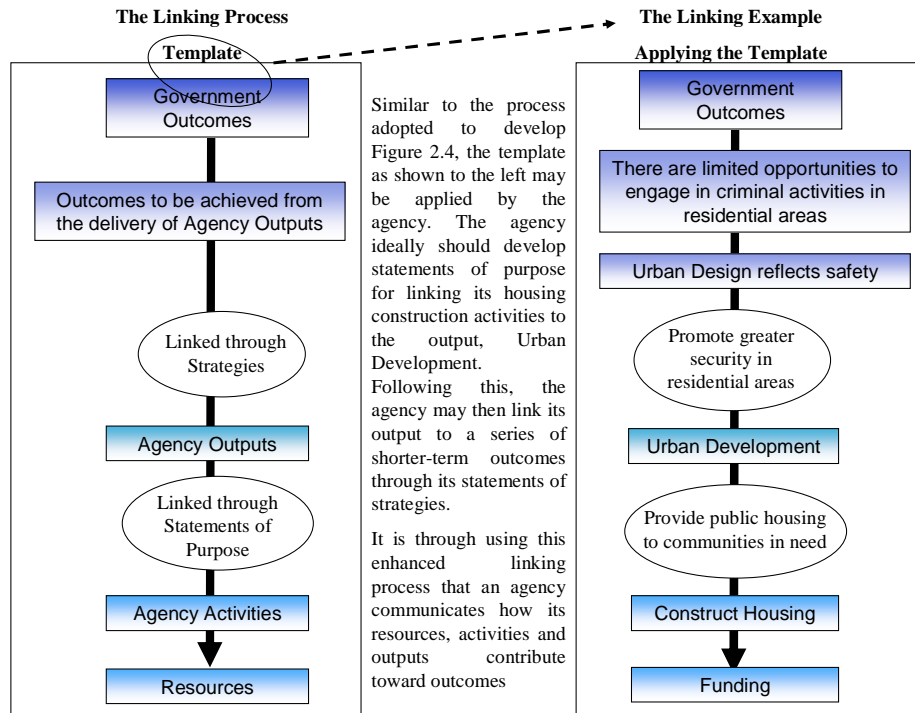


Figure 2-6 Example of Enhanced Linking Process

The “performance story” (McLaughlin & Jordan, 1999) presented in Figure 2.6 is enhanced by articulating the strategic objectives of the agency, developing strategies for achieving this and identifying clear purposes for undertaking activities such that they are aligned with strategies.

In the first place, developing statements of strategic objectives involves describing the strategic direction of the agency. It provides a top-level overview of the agency. Through planning processes, agencies should be clear about the nature of the desired changes in the community and target groups over which it has most direct influence as a result of their service delivery and how this direction statement contributes toward the achievement of government’s desired outcomes. Working from these strategic objectives, the agency determines strategies that are designed to drive these strategic objectives. These strategies delineate the changes that need to occur, and also point toward the accompanying activities and the necessary inputs of human and financial resources that make a program more effective. Reaching

the agency's strategic objectives is dependent on ensuring a focus on strategy and the rationale behind government programs.

This approach is in stark contrast to an approach that starts with the inputs and outputs. Focusing on inputs and activities may lock the agency into preordained actions that may no longer have relevance in solving problems. Thus, this process of relating outputs to the government's desired outcomes, followed by relating resources and activities to outputs, assists decision makers to test the alignment of government services and resources with desired outcomes. In fact, the process relies on following a logical sequence that clarifies how the agency's strategic objectives and its strategies should drive its interventions and programs. Specific activities should fit together such that they are likely to produce the desired outcomes (Chen & Rossi, 1983; Hernandez, 2000; Rossi & Freeman, 1993). This represents the whole delivery process – resources, activities, outputs and outcomes – and assists in communicating the agency's "performance story" (McLaughlin & Jordan, 1999). Linking these elements logically assists in establishing a common ground for discussion and understanding, thereby forming the basis for assigning responsibility for achieving government's desired outcomes. This process reduces the risks associated with programs lacking specificity in the selection of possible outcomes. It also reduces the risks to the agency in using broad and vague objectives for its interventions and programs, which make it difficult to assess whether specific program objectives have been achieved (Baldwin, 2000: p 19).

This enhanced linking process improves the ability of the agency to demonstrate the effectiveness of its service delivery and gives credence to the documentation and communication of the agency's progressive achievements (Baldwin, 2000: p 19-33). In addition, this enhanced linking process provides "a paradigm to systematically explain the relationship between theoretical premise, program intervention, immediate and long-term outcomes, and provides a logical explanation of the logic flow from program activities to the anticipated short and long-term impact of the intervention" (Cato, 2006, p 18).

Developing a logically linked OBPM model is best achieved by adopting elements of what is referred to as program theory (Patton, 1990) and grounded in theories of change (Weiss, 1998; Connell & Kubisch, 1998; W.F. Kellogg, 2001; Anderson,

2005). A theory of change approach assists in explaining how an agency's intervention or program aims to produce changes in the conditions of its targeted population group (Hernandez, Hodges, & Cascardi, 1998; McLaughlin & Jordan, 1999). Weiss (1998) defines a theory of change as an explanation of the causal links that tie a program activity to expected outcomes.

This research proposes that two integrated techniques are useful in developing an OBPM model:

- **Change maps** translate the agency's strategic objectives into a set of sequential outcomes that lead to the government's desired long-term outcomes. Change maps enable the clear articulation of intermediate and short-term outcomes that support the achievement of higher level desired outcomes. In developing change maps it is the agency's strategies that produce short and intermediate outcomes which are considered to contribute to longer-term community change. In this sense, it is the strategies of the programs that can be thought of as short term outcomes that are related by evidence (theoretical or empirical) to desired community-level change. This concept is referred to as a "chain" of outcomes (Julian, 2005: p 162). Change maps are considered to be the front end of the theory of change process.
- **Logic models** map the agency's resources and activities to its outputs and ultimately to the set of sequential outcomes. This is done by clearly identifying the purposes for undertaking activities.

The use of these two techniques creates a picture or visual presentation of how an intervention works. Together they depict an intervention in terms of its basic components and represents how and why an intervention is theorised to work (W.K.Kellogg Foundation, 2001: p III).

These two techniques operate at various levels of the theory of change approach: the change map operates at the macro level; while the logic model operates at the level of the particular program or service. While they operate at various levels it is important that they are linked hierarchically, as shown in Figure 2.7, to ensure that consistency of purpose and strategy across levels can be achieved.

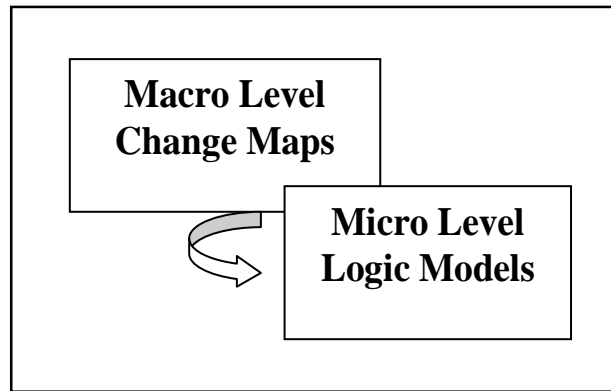


Figure 2-7 Hierarchical Relationship between Change Maps & Logic Models
 (Adapted from Hernandez, 2000: p 31)

As discussed earlier in this chapter, both techniques associated with the development of theory of change are linked. This linkage and the way in which these techniques are integrated in order to establish an OBPM approach for an agency is summarised in Figure 2-8.

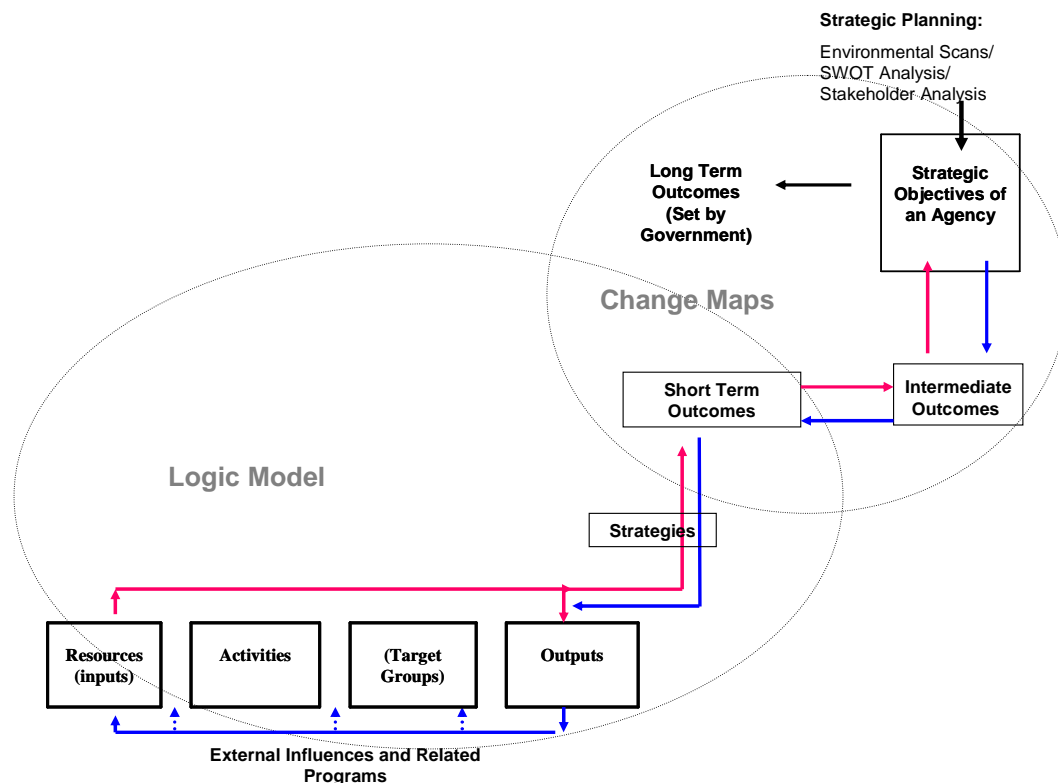


Figure 2-8 OBPM Model
 (Adapted from Montague: 2000)

As shown in Figure 2-8 key elements are linked so as to communicate the “performance story” (McLaughlin & Jordan, 1999) of the agency. The key elements are as follows:

The key element of change maps is (Wholey, 1987; Friedman, 2001):

- Outcomes – characterised as changes and benefits resulting from outputs. These reflect sequential outcomes across the full range of government program performance including:
 - Short-term outcomes
 - Intermediate outcomes
 - Long-term outcomes.

The key elements of the logic model, which are managed entirely by individual agencies are (Wholey, 1987; Montague, 2000; Friedman, 2001):

- Resources – including human and financial resources required to support the program;
- Activities – including all steps necessary to produce the program outputs (including cross-agency activities);
- Outputs – including all the goods and services which are delivered by agencies to achieve the outcomes being sought; and
- Beneficiaries and target groups as recipients – placing beneficiaries and target groups explicitly in the middle of the model helps program stakeholders better think through and explain what programs/interventions contribute toward what outcomes and further to explain which community and population groups are expected to benefit from the program or intervention. (Montague, 1998).

Together these techniques assist in explaining the “performance story” (McLaughlin & Jordan, 1999) of the agency and are useful to conceptualise the actions of the agency. The process, however, is not without its challenges. Ellermann, Kataoka-Yahiro & Wong, (2006: p 220) suggests that the process requires dialogue, context, time and reflection. This process, along with its challenges, is detailed in sections 2.2.1 and 2.2.2.

2.2.1 Change Maps – Developing Outcomes and Indicators

When agencies are faced with societal issues or problems that require some public sector intervention, discussion often moves quickly to an approach involving

activities or projects. Often the issues or problems faced by the agency require a different approach. Discussion concerning activities or projects may often be regarded as “putting the cart before the horse”. This is particularly so where the traditional methods and solutions no longer match the expectations of the community or target group expected to benefit from the intervention strategy (Baum, 2001). This research proposes that the approach adopted by the agency should firstly be to establish the expectations of the community or target group that should benefit from the intervention strategy. It should describe the intent of the intervention, and then translate these intents into strategies. Clearly this approach tends to take the form of a dialogue which typically involves a thinking process (Hernandez, 2000; Friedman, 2001, Ellermann, Kataoka-Yahiro & Wong, 2006). It begins with a description of the intermediate outcomes expected from the agency’s intervention or program and it will move across a series of shorter-term outcomes, and strategies to create a map of the intervention (Brown, 1995 in Hernandez, 2000: p 32).

As agencies struggle to show that what they do has real value and impact, creating this change map enables them to plan activities and evaluate their impact on residents and communities and subsequently demonstrate their contribution to the government outcomes (Connell & Kubisch, 1998).

A [change map] offers a picture of important destinations and guides you on what to look for on the journey to ensure you are on the right pathway (Annie E. Casey Foundation, 2004: p 1).

Creating a change map involves the following steps (Connell & Kubisch, 1998; Auditor General of Canada, 2000):

- Clarify outcomes expected from delivery of outputs.
- Describe the intervention(s) in general terms.
- Link outcomes with the intervention by outlining a chain of outcomes that connects them. Chains of outcomes are based on research or the experience of the agency’s employees. The process seeks to develop a series of commonly is referred to as “So That” statements. These statements break the proposed sequence of events leading to the outcomes expected into a series of steps of cause-and-effect.

- Identify assumptions made with respect to each sequential step in the pathway. Understanding the assumptions helps clarify the sequence of change behind the intervention. Highlighting assumptions that may be incorrect assist in the identification of additional steps to be taken.

Developing outcomes involves describing, in the first instance, the outcomes desired for a population. Such descriptions often include statements such as “all residents are safe, all communities are strong and self-sufficient”. They can also include such statements as: “our community has affordable housing for everyone”; “our community has a clean environment” and so on. Such statements are designed to communicate the basic purpose of the Government’s policies. The process then involves describing how one would recognise the existence of these conditions, firstly in terms of experience and then in terms of data. To understand what the end outcome would look like on the ground and in order to develop meaningful indicators, it is necessary to ask (Friedman, 2001): “What would we see, hear, feel, observe?” For example, if the desired outcome is “safe communities”, the various elements of what this means to the community requires further clarification such as “citizens are safe in their homes”, “the community is safe from criminal activity”, and so on. It is what stakeholders think and feel that is the direct measure of success (Bolton, 2003: p 23). By following this line of thinking, agencies will have much clearer understandings of how short- and longer-term outcomes work towards achievement of the ultimate government outcome.

While the outcomes orientation is an important development in government agencies, there is little doubt that the implementation is a difficult endeavour. The range of issues and concerns is immense including the questions, what is an outcome and what outcomes are important? Managers and employees within an agency who have the expertise to move from outcome definition to outcome measurement need to negotiate with broader stakeholders on which outcomes are the most important for the agency. It is the final statements of important outcomes (including short term and intermediate outcomes) that the agency is expected to contribute toward. This engagement and negotiation process is not always comfortable: differences in opinion are likely to emerge (Blamey & Mackenzie, 2002: p 9). Often discussions become difficult as the agency, through engagement with the community in

particular, may expose itself to negative feedback (Poertner, McDonald, & Murray, 2000: p 804). It is often the case that the concerns of planners, researchers and practitioners are quite different. For example, it can be argued that in many cases, practitioners are not overly concerned with attributing cause to a particular activity, at least in a theoretical sense. On the other hand, trying to rule out alternative explanations for observed effects is a preoccupation of researchers. It is not surprising, therefore, that the dialogue carries with it the passion of its participants. It is suggested, however, that behind the specifics of these discussions are fundamental questions about the desired outcomes to which the agency should contribute (Julian, 1997: p 251-257). These specifics often indicate a continuum of issues ranging from pure program theory to practice. Through this dialogue, however, it may be argued that theory and practice can be complementary (Price & Behrens, 2003 in Wandersman (2003: p 227-42).

The above process appears to involve quite challenging dialogue between key stakeholders. However, failing to include these stakeholders in the process is likely to lead to misunderstandings of the agency's mission and the methods used to achieve that mission (Hernandez, 2000: p 32-33). Engaging in dialogue with stakeholders is critical in reaching agreement on how to produce change and improvements in the community (Chen 1990, Lipsey 1993).

There may be various situations where the model may not fit or be inappropriate (Fischer, 2001). For example, in many cases, non-government organisations (NGO) are provided with funding grants from government agencies to deliver crisis focused interventions to targeted client groups. In such situations there may be limited data on how the services provided led to the resolution of a client's problem or other positive outcomes. Frequently, in these instances, a measure of output is the only plausible measure of outcome. Consequently these programs may be forced to rely on the things that are measurable such as the number of clients served.

While the above challenges appear intrinsic to the development of change maps, and therefore potentially political, success is more likely if the process can achieve consensus among key stakeholders about the importance of clarifying the assumed links between the agency's strategic objectives and their expected outcomes,

including the evidence base for these 'cause-effect' linkages (English & Kaleveld, 2003: p 40).

While change maps are often depicted as linear the real process of change is dynamic and complex. Presenting change maps as linear is "potentially constraining as it may impede thinking in a synergistic and partnership manner" (Blamey & Mackenzie, 2002: p 6). By using an example from the Starting Well project (a Scottish health project focusing particularly on child health), these authors argue that whilst, from a child health perspective, improved health outcomes might be viewed as the ultimate goal with improved family functioning as an intermediate objective, the converse might be true for those operating within social services. Hence the patterns of the maps may take any shape or form that caters for the inter-relatedness of the theory (Granger, 1998: p 7). Furthermore in developing change maps, causal judgments are made in which the agency estimates the effects of its actions. Complete predictability is not to be expected (Cook & Campbell, 1986 in Granger, 1998: p 2). Evaluation processes ideally should identify these instances and provide important feedback that should be acted upon. Such feedback should trigger revisions to future change maps.

As Connell & Kubisch (1995) suggest, a useful change map should be plausible, actionable and testable. Plausible refers to the extent to which the links between the interventions and the expected chain of outcomes are based on an existing theoretical or empirical evidence base or at least an inherent logic. Actionable relates to the degree to which the outcomes may be achieved within the timescales, context and resources available to the agency. Testable relates to the extent that the change map is well enough specified to allow verification of progress through the measurement of the expected outcomes. However, it may often be that in practice, while a completed change map might appear inherently logical, there is evidence to suggest that they are not always actionable. For example, in the case of the Scottish Health Project, Blamey & Mackenzie (2002) identifies that, partly due to the early political imperative to commence activity as soon as possible, some of the health projects were initially poorly planned. Under these conditions, the authors argue that agencies would find it difficult to articulate what could be achieved in a way that would be both acceptable to stakeholders and sensible in terms of what intermediate

outcomes would lead to long-term outcomes. In some cases, as these authors report, project teams were, for example, still employing staff up to and after the point that they were articulating their change maps. In such circumstances the process of developing change maps is likely to be far from complete.

Findings from empirical research also raise issues concerning the degree to which many change maps are testable. This is particularly the case in terms of efforts to identify possible quantifiable measures and in relation to specifying the magnitude of change expected (Blamey & Mackenzie, 2002). However, it is generally considered that outcome measurement makes no substantive claims about the impact of services (Hatry et al, 1996: p 21-22). It makes no attempt to measure the difference between what happened and what would have happened in the absence of services. Consequently, most data simply document that changes, positive or negative, occurred in the conditions of the community or the lives of residents. Such changes are commonly determined, at the highest level of the change map, in terms of movement in key social, economic or environmental indicators representing specific problems. These indicators can be defined as a statistic that reflects social, economic or environmental conditions relative to a specific geographic area (Land, 1996 in Julian 2005: p 163).

Analysis of such indicators involves examining the relationships between indicators. For example, an agency's focus on addressing community safety may be concerned with problems associated with incidences of vandalism and graffiti by youth. Social indicators representing these problems include rates of crime associated with vandalism and graffiti and rates of youth offenders. If both the rates of youth offenders and the rates of crime associated with vandalism and graffiti decrease at a community level, it can be concluded that conditions relating to community safety at the community level have changed in a desirable way. Thus the analysis of outcome indicators, particularly trends in these over time, provides a means of documenting conditions in the community. With this in mind, however, the reality is generally that when these results are reported to budgeting authorities, it is commonly suggested that the agency's programs caused the changes that occurred. These claims may often be made regardless of the rigour of the design and the causal links that have been proven (Julian, 2005). This is probably why Moynihan (2005: p 215) suggests that OBPM is more symbolic than real.

Further to this, the collection of indicator data at the higher level only does not enable measurement of how short term or intermediate outcomes are achieved by the agency. Unless “there is a clear conceptual model at the beginning for short-term results and long-term outcomes, then baseline indicators cannot be selected and measured, and measurement in general will be error prone and ineffective” (Alter & Murty, 1997: p 104). Thus a hierarchical arrangement of indicators and measures should enable an assessment of the intended outcomes expected from the delivery of agency outputs, and the linkage between these outcomes and the long-term outcomes desired by Government. At the lower levels of the indicator hierarchy this requires the development of measures of effectiveness. Measuring effect is critical in providing a clear linkage to the outcomes of the program on the community and how the agency’s services and programs contribute toward these outcomes. Effectiveness is concerned with the extent to which outputs meet societal needs (Boland & Fowler, 2000: p 417-446).

Measures of effect show whether the agency’s clients are better off as a consequence of receiving the services and gauge the effect of the service on the lives of citizens. Measures of effect focus on changes in skills, attitude, behaviour and/or circumstance (Friedman, 2001) and require consideration of questions such as:

- Is the community better off as a result of the agency’s programs?
- What is the extent of change for the better that the agency’s outputs produced?

These questions may then become more specific in terms of:

- Did the skills of clients within particular target groups improve?
- Did the attitude of clients within particular target groups change for the better?
- Did the client’s behaviour change for the better?
- Has the client’s life circumstance improved in some demonstrable way?

The common complaint of performance measurement in the public sector, however, is that efforts to measure performance have largely focused on process rather than outcome. Boland & Fowler (2000) suggests, however, that these are limited because they do not inform whether objectives have been attained. What should matter to government is the end focus which should be what Government has achieved, that is

the outcome. Measuring how Government goes about achieving it, that is, the process should not be the focus (Pitsvada & LoStracco, 2002: p 65).

Hence, the evaluation of the government program requires quantification of outcomes. In essence, outcome indicators seek to answer “Was the community and its residents better off as a result of the delivery of the government program?” Once a set of indicators are defined, the collection of data is necessary from which to report and monitor the agency’s progress towards meeting the agreed outcomes. It may often be the case that there are problems with the availability of data (Campbell, 2002: p 244). The Office of Economic and Statistical Research (OESR), a portfolio office within Queensland Treasury, is the principal economic, demographic and social research agency for the Queensland Government. OESR provides access to economic, demographic and social data relating to Queensland and coordinates a broad range of economic and statistical information services to enhance the evidence base for policy evaluation and performance measurement, with specific support to MFO reporting (Queensland Treasury, 2004). In many jurisdictions, the major Statistics Office (for example, Australian Bureau of Statistics, Eurostats, UK National Statistics Office) serves to provide a similar role.

The information delivered through these steps provides valuable input into developing the logic model which shows clear linkages between activities that the agency undertakes to deliver outputs and the desired outcomes.

In summary, agencies wishing to demonstrate that they provide value to the community, should create change maps to assist them in planning their activities and demonstrating their contribution to the government outcomes. By clarifying the Government outcome/s they contribute towards, describing the interventions and linking these interventions to outcomes through a series of steps of cause-and-effect, agencies will be better able to demonstrate the extent to which their outputs meet societal needs. Change maps should be plausible, actionable and testable enabling verification of progress through the measurement of the expected outcomes. Measurement of expected outcomes involves determining measures of effect that show whether the agencies’ clients are better off as a consequence of receiving the services.

2.2.2 The Logic Model – Developing Outputs and Performance Measures and Linking with Outcomes

Logic models provide a mechanism to create visual maps of agency's resources, activities, and outputs delivered to its clients such that the desired outcomes specified in the change map are achieved. Producing these visual maps requires focused decision making in order to define accurately how resources, activities, and outputs are connected at any given level, as well as how these levels relate to outcomes. Using a logic model strengthens the OBPM framework since it better defines "what actions [agencies] are going to have to take to bring all of this change about" (Anderson, 2005: p 9).

Outputs are the direct products of activities and are usually measured in terms of the volume of work accomplished, such as the numbers of classes taught, counselling sessions held, people served, parks improved, and the like. Outputs and their measures, in simple terms, describe "what" and "how much" came out of an activity.

Activities could include (i) developing products (such as promotional materials and educational curricula); or (ii) developing infrastructure (such as new governance structures, relationships and capacity) (W.K. Kellogg Foundation, 2001: p 8).

There is general agreement that performance measures suitable for measuring the success of outputs and activities generally fit into different categories, each of which is important in order to conduct an effective and meaningful evaluation (Wholey, 1999; Mason, 2000; Bowland & Fowler, 2000; Mwita, 2000; Behn, 2003). A balance of these indicators reflects the changing accountabilities among stakeholders (Mason, 2000: p 76). The different categories for performance measures include the following.

- i *Quantity of Activities and Outputs:* How much service was delivered? How many people received the service? How much of a process or activity associated with the delivery of outputs was undertaken?
- ii *Quality of Activities and Outputs:* How well was the service delivered? This may be measured through resident or client satisfaction surveys. Quality of processes or activities may also be measured in accordance with adherence to standards.

- iii *Cost*: How much did the service cost in terms of the costs to undertake the activities?

In essence performance measures seek to answer the following questions:

- How much was invested?
- What was delivered?
- To whom were activities delivered? Which target group was reached through delivery of the program?
- How well was it delivered?

Attempts to measure outputs have typically centred on measuring the volume of products and services delivered to individuals and to the community. However, with the increasing importance being placed on the public sector to find ways to improve the efficiency and effectiveness in the provision of public services measures of quality are also important. Ways in which efficiency and effectiveness may improve is generally considered to either increase the number of outputs for a given level of resources or to improve the quality of those services. Without both types of measures formal evaluations would not be possible. Several other issues surface when attempts are made to define and measure outputs (de Bruijn, 2000; Atkinson, 2005; ab Iorweth, 2006). Such issues include developing measures of output that cover the full range of the agency's activities and which accommodate complex service delivery options.

In some cases the use of measures of activities may be used as proxies for measures of output (State of Victoria, 1999; Commonwealth of Australia, 2002). Focusing on activities such as police patrols and measuring the activities according to the number of patrols performed by police, may reflect what the agency is actually doing. While this tends to be closer to the definition of an output than the traditional input-approach, the use of activity measures can be misleading. For example, where the output of police services is defined as 'police patrols' and if new and improved urban design decreases the number of patrols performed by the police, does this imply a decrease in output? It may be argued that 'police patrols' is a description of

an activity undertaken by the agency responsible for delivering police services². Outputs are not always easy to define let alone identify a suitable measure of the output. For example, what is the output measure for the provision of police patrols? Is it the number of patrol hours or the number of policing hours consumed by community? Ideally, an output is defined as that which is delivered to the consumer. It may be easier to identify those outputs directly delivered to individuals. However where services are delivered to the community as a whole, such as police services, it becomes more difficult to measure (Atkinson, 2005; ab Iorweth, 2006).

Despite the extensive use of performance measures in the public sector, concerns continue to be raised, however, over the “lack of conformance of performance measurement practices to the rational, goal directed management model underpinning [OBPM]” and the observation that performance measurement practice “rarely appears to be guided by formally stated objectives” (Modell, 2005: p 58). As discussed earlier in this chapter, problems exist when the linkage between performance measurement and strategic objectives is missing as well as a lack of alignment of the organisation’s planning activities and performance measurement activities (Mintzberg, 1994; Kloot & Martin, 2000).

Despite agencies receiving advice on developing performance measures (Friedman, 1996; Queensland Treasury, 1997; SSC, 2002; Campbell Public Affairs Institute, 2002; DBM, 2002; Treasury Board of Canada, 2006), several empirical studies have reported findings that demonstrate that in general Government continues to remain focussed on resource expenditures and the quantity of services that have been delivered. The majority of studies find that few governments focus on the quality and outcomes of their programs (Wholey & Hatry, 1992; Gianakis, 1996; Atkinson, Waterhouse & Wells, 1997; Foltin, 1999; Rochet, 2004; QAO, 2005b). The continued focus on resource expenditures is further evidenced by reports (Gianakis, 1996; Greiner, 1996; Carlin & Guthrie, 2001; Melkers, et al, 2002; Auditor-General of South Australia, 2002) that the growth in the development and use of performance measures has not meant an improved integration with budgeting and planning. While performance measures may be reported in budgets, the evidence suggests that they are yet to play a significant part in resource allocation decisions.

² It is beyond the scope of this research to delve into specific identification of agency outputs

Melkers, et al, (2002: p 16) notes, for example, that less than 40% of state agencies across the United States use output and outcome measures as part of their budget development process, with less than 30% using these measures as part of their assessment of budget results. Needless to say, while the focus remains at this level, performance information remains in the background.

In terms of reporting the performance of agencies, audit findings of several jurisdictions have also reported significant accountability gaps in agencies' performance management practices (Auditor General Victoria, 2001, Commonwealth of Australia, 2002; Auditor-General of South Australia, 2002; QAO, 2005b). For example, the Queensland Audit Office (QAO, 2005b: p 4) reports the need to improve performance measurement in agencies. It identified inadequate linkages between agencies output performance measures and the government's desired outcomes reported annually. Furthermore, the QAO reports that despite the fact that the MFO policy has been in operation in Queensland for six years, eight of the eleven agencies that were reviewed during 2005 could have better aligned their output performance expectations contained in the Ministerial Portfolio Statements (MPS) with actual performance reported in the Annual Report. In a number of these cases, agencies reported on a range of measures in their MPS and a separate set of measures, often aligned to strategic priorities, in their Annual Report (QAO, 2005b: p 4).

It appears clear from these audit reports that it remains imperative for the public sector to adopt an improved focus on outcomes. This research proposes that a theory of change approach to OBPM be adopted in the public sector whereby an agency's strategic objectives and the delivery of its services are linked (Mintzberg, 1994; Vinzant & Vinzant, 1996; Poister & Streib, 1999; Hendrick, 2003; Poister & Streib, 2005).

The examination of prior research indicates an increasing adoption of the approach for articulating the future direction of government programs. The approach described in this chapter is applied at various levels to various government programs, including those relating to:

- children's mental health (Bickman, et al, 1992; Hernandez, Hodges & Cascardi, 1998);
- child welfare (Poertner, McDonald & Murray, 2000; Solomon, 2002);
- sport and recreation programs that target youth at risk (Ellis, Braff & Hutchinson, 2001; Cato, 2006);
- youth development (Julian, 2005);
- health programs (Sullivan, Barnes & Matka, 2002; Hardeman et al, 2005);
- public education (Millett & Zelman, 2005);
- children's physical activity (Dwyer, et al, 2003);
- family and community services (RMIT, 2002);
- homeless youth (Ferguson, 2007);
- community development (Connell & Kubisch, 1998; Lafferty & Mahoney; 2003)
- economic development (Shapira & Youtie 1998; Youtie, Bozeman & Shapira, 1999; Shapira, Youtie & Mohapatra, 2003)
- science and technology (Teather & Montague 1997; Voytek, Lellock & Schmit, 2004).

This evidence suggests that the approach described in this chapter has value as a tool for Queensland Government agencies in aligning their services to government outcomes since it can provide a means for ensuring that resources are used wisely and that an intervention is based on sound logic. It also helps communicate the program more effectively to Government, other agencies and community members. While there may be significant challenges facing agencies in adopting this approach, significant benefits are expected to accrue to the agency from its use, not least an improved credibility in the government's communication of its achievements. These benefits include:

- stimulating critical thinking as a multidimensional integrative process;
- enhancing an understanding of the numerous interrelated influences on the community and its residents;
- identifying and clarifying concepts, with supportive data, and the situational influences;
- visualising and logically linking the concepts;

- building a shared understanding of the workings of the agency's services in the community;
- assisting in program design by identifying activities and programs that are critical to achieving the strategies of the agency; and
- communicating the place of the agency's outputs within the Government's strategy for achieving desired outcomes for Queensland's communities;

The success of this approach depends on how well one (i) teases out the overall assumptions of the program and (ii) identifies the incremental steps that move residents and/or communities toward the long-term outcome/s (Alter & Murty, 1997: p 112).

2.3 Key Theoretical Principles



The Queensland MFO policy requires the accuracy and comparability of performance and cost data as the fundamental ingredients for OBPM. Principles underpinning the MFO policy focus agencies on the following techniques to operationalise MFO:

- determining the costs of outputs; and
- enabling measurement, reporting and monitoring of performance in terms of resources, activities, outputs, and contribution to desired outcomes.

A mapping of the convergence of the key principles of the MFO policy and MAP was proposed by this research in Chapter 1 (refer Figure 1.1). The convergence of MFO principles with MAP considered in this chapter relates to that which informs an agency of what its programs are achieving. This begins with the adoption of program theory which is grounded in a theory of change. Different approaches by agencies in applying these practices affect the degree to which they meet the objectives of the MFO policy.

The nature of the convergence of the principles and practices associated with performance measurement can be expressed as a set of theoretical principles. These principles are used in this research to examine the extent to which contemporary performance management practices, particularly outcomes-based performance

measurement, contribute toward achieving the objectives of the MFO policy. The following principles were developed to guide the investigation into research problem, RP-1. They guide the collection and analysis of data for the investigation of the extent to which MAP can contribute to achieving the objectives of the Queensland Government’s MFO policy.

Research Problem RP-1
RP-1 To what extent can contemporary MAP contribute to achieving the objectives of the Queensland Government’s “ <i>Managing for Outcomes</i> ” policy?

<p>RQ-1 What contemporary MAP should be applied to an OBPM environment?</p> <p>RQ-2 Under the MFO policy, what type of outcomes-based performance information should be reported by public sector agencies?</p> <p>RQ-3 What approach should public sector agencies adopt to establish linkages between its strategic direction and its programs or interventions so that the agency may explain its contribution to desired changes in conditions of the community and its residents and ultimately to the Government’s desired outcomes?</p>

<p><u>Principle PM-1:</u></p> <p>Public sector agencies should develop change maps and logic models that link resources, activities, and outputs to a chain of outcomes so that the agencies may demonstrate how they contribute to the achievement of the Government’s desired outcomes. This will enable them to meet the objectives of the MFO policy.</p> <p><u>Principle PM-2:</u></p> <p>Public sector agencies should measure performance by developing measures suitable for communicating their contribution to the Government’s desired outcomes and suitable for assessing the success of activities and outputs in contributing toward these desired outcomes.</p>

2.4 Conclusion

This chapter discussed the technical and methodological aspects of the public sector OBPM and detailed the theory developed in the area of performance measurement.

The OBPM process, as a comprehensive and integrative planning, budgeting and performance management approach, begins by focusing an agency on its mission, goals and objectives. The steps of measuring and monitoring performance provide valuable information on which to evaluate performance. Evaluation of performance provides valuable feedback to inform the ongoing planning, resourcing and delivering of services. From this feedback the agency adapts its planning and service delivery strategies.

While practical guidance from several jurisdictions is well documented and provides assistance to agencies for implementing the process, the adoption of OBPM continues to present challenges for the public sector. In the absence of a theoretical and conceptual basis for guiding agencies' adoption of OBPM, there is the risk that difficulties will be faced by agencies in coming to terms with what should be measured.

In addressing an apparent weakness in the typical OBPM linking process this chapter proposed an approach to adopting and implementing OBPM that is based on program theory and which is grounded in a theory of change. Techniques proposed included the use of change maps and logic modelling. Change maps enable the clear articulation of intermediate and short-term outcomes that support the achievement of higher level government desired outcomes. The recognition of these outcomes in measurable terms requires pieces of data that tell whether these outcomes exist or not. Logic models are an effective technique for mapping resources and activities to outputs and ultimately to outcomes. Performance measures suitable for measuring the success of activities and outputs fit into different categories, each of which is important in order to conduct an effective and meaningful evaluation.

The principles of the Queensland Government's MFO policy, which are embedded in legislation, require the cause and effect between an agency's output and its ultimate impact to be tracked through performance measures. Convergence between the objectives of the MFO policy, and the practices of performance measurement was presented. Theoretical principles based on this convergence were developed. These key principles inform the examination of research problem, RP-1. They guide the collection and analysis of data for the investigation of the extent to which MAP can contribute to achieving the objectives of the Queensland Government's MFO

policy.

The next chapter presents the theory underpinning contemporary costing with specific focus on relevant cost concepts, the bases for cost allocations and methods of cost measurement. Chapter 3 also considers the technical issues facing agencies in their efforts to demonstrate the efficiency and the effectiveness of their services. Prior research that investigates the context within which cost management is adopted and applied by the public sector is also explored.

CHAPTER 3 COST ACCOUNTING PRACTICES

3.0 Introduction

The task of measuring performance in the public sector draws attention to cost accounting practices and the need to measure the cost of services provided. The application of cost accounting is a critical consideration for achieving a concentration on outputs and outcomes for the Queensland Government as it meets the objectives of its MFO policy.

The previous chapter 2 discussed in detail prior research that has been undertaken and discussed the practical guidance provided by central agencies to line agencies in implementing performance measurement practices. Chapter 2 developed a conceptual framework of public sector OBPM in detail. Key theoretical principles underpinning OBPM and performance measurement were developed. These key principles inform the examination of research problem, RP-1 and guide the collection and analysis of data for the investigation of the extent to which MAP can contribute to achieving the objectives of the Queensland Government's MFO policy. These theories relating to the nature of public sector OBPM have strong linkages with cost accounting through the identified need for accurate costing of Government services.

As shown in Table 3.1 (which is extracted from Table 1.1), this chapter centres on those theories relevant to connecting cost accounting practices with the information requirements of the Government's MFO policy. This chapter specifically deals with prior research relating to the adoption of ABC. It provides a basis for determining whether ABC, as the recommended costing approach within the Queensland public sector, is appropriate for calculating the cost of products and services delivered by agencies and for assessing the efficiency and effectiveness in delivery of these services. The technical issues for consideration in adopting and applying ABC are also presented.


Research Problem RP-1	
RP-1 To what extent can contemporary management accounting practices contribute to achieving the objectives of the Queensland Government's " <i>Managing for Outcomes</i> " policy?	
	
RQ-4 What type of costing information is required to be reported under the MFO policy? RQ-5 Is activity-based costing an appropriate costing model for agencies to use in calculating the cost of its products and services and in assessing the efficiency and effectiveness of service delivery?	Cost Accounting Principles and Practices (Chapter 3)

Table 3-1 Purpose of Chapter 3

The theory detailed in this chapter contributes to an enhanced understanding of the cost accounting practices that support the objectives of the MFO policy in the Queensland Government. Different approaches by agencies in implementing these principles affect the degree to which the adoption and application of the MFO policy is successful.

The convergence of the principles of MFO and MAP, as proposed in Chapter 1 (refer to Figure 1.1) is concerned with the following:

- measuring the cost of service delivery through the application of contemporary cost management techniques; and
- monitoring and evaluating government service delivery through the application of performance monitoring techniques.

This chapter focuses on the determination of the cost of the agency's programs. This convergence is concerned with examining the model of ABC centering on methods for allocating indirect costs. Firstly, related prior research on the development and implementation of ABC is examined. Relevant issues relating to the determination of cost and the attribution and allocation of administrative and corporate-wide costs to products and services are examined. Secondly, the technical aspects of the ABC model are dealt with, including (i) relevant cost concepts, (ii) bases for cost allocations and (iii) methods of cost measurement. This chapter identifies MAP that should be adopted by the Queensland public sector agencies. It defines theoretical principles to guide the examination of ABC in terms of its application to the

Queensland MFO policy. The key principles developed in this chapter inform the examination of the extent to which MAP can contribute to achieving the objectives of the Queensland Government's MFO policy.

3.1 Related Literature - The Nature of Cost Accounting

Cost accounting concentrates on the specifics of collecting, allocating and controlling the costs associated with producing a product or service (Hoggett & Edwards, 1992; Teoh & Funnell, 1993). The goal of cost management, however, is to provide relevant and timely information to management that support the management of organisational resources in the production of products and the provision of services.

The analysis of costs associated with producing products or providing services reveals that they include costs and resources consumed in accomplishing a specific purpose, performing a service, providing a product, or carrying out a project or program (Martinson, 2002: p 19). Consequently, contemporary cost accounting involves identifying the processes that produce or generate the products or services and measuring and analysing the costs incurred in these processes (Cooper, 1988; Stevenson, et al, 1996; Cooper & Slagmulder, 2000a & 2000b; Martinson, 2002).

Cost represents the value of resources that have been consumed to achieve a particular objective of an organisation. The traditional frame of reference for measuring costs is volume of production where costs are known to change in magnitude in relation to changes in volume of activity. While costs relate to the consumption of resources, cost behaviour, on the other hand, relates to the way in which this consumption changes according to volume. Thus in attempting to measure costs it is recognised that costs are not all the same. Hence, the behaviour of costs lies at the root of cost measurement and analysis.

Analyses of the way in which costs behave usually involve classifying costs (Moriarty & Allen, 1991; Hoggett & Edwards, 1992; Horngren et al., 1992; Teoh & Funnell, 1993). Such classifications include those shown in Table 3.2.

Cost Classification	Definition
Fixed costs	Costs that do not increase or decrease in total despite changes in the level of service provided or product produced
Variable costs	Costs that increase or decrease with changes in the level of service provided or product produced
Direct costs	Costs that can be traced directly to a particular cost object
Indirect costs	Costs incurred for the benefit of the agency as a whole but which face some level of economic burden in tracing them directly to cost objects

Table 3-2 Classification of Costs

(Source: Kelly, 2002)

The traditional classification of costs is one that is based on behaviour that is either fixed or variable costs. A variable cost is a constant rate per unit produced and is directly proportional in total to the activity or production level. A fixed cost, on the other hand, is constant in total. It varies inversely with the activity level on a per-unit basis. More commonly it would be expected that costs are mixed, containing both variable and fixed components.

While this traditional two-way classification of costs appears relatively simple, it has its limitations. One such limitation is that it implies that costs are purely a function of activity. While this implication is generally true, it is more likely that there are more factors which influence costs, such as product design or production processes. The complexity and diversity of products or services that result from differences in design, maturity, volume or scope of the service makes a product unique and it is this diversity that gives it a unique cost. Each product or service requires different activities and hence incurs a different overall cost (Gunasekaran, 1999: p 118-126).

There are also complications that stem from the fact that all cost measurements are affected by choices of cost allocations. It is not the nature of costs that governs this classification; it is the “trace-ability” (Martinson, 2002: p 20) of costs, relative to the cost objects³. As such, attempts are made to relate costs to their principal causal factor whether it is activity or some other factor. The classifications of direct and indirect costs have contributed to these attempts. Further to this, it is not the behavior of costs that determine whether costs are classified as direct or indirect. Both fixed and variable costs can be classified as either direct or indirect costs

³ A cost object is defined as a “view of cost that is useful to management” (Geiger, 1999a: 47).

(Martinson, 2002: p 20). Interestingly, costs can be direct with respect to one cost object while being indirect to another. Take for example, advertising and marketing costs. A part of advertising and marketing costs may be directed toward the advertising of particular product lines, while the remainder of the total advertising and marketing bill may be more generally focused on a range of products. It is important, therefore, to place importance on the cost object when classifying costs. It is the choices of cost objects and cost classification which affect how costs are assigned to cost objects. It is also the relationship between the cost and the cost object which determines whether a cost is direct or not (IFAC, 2000).

Early costing approaches involved a two-step process. The first step concentrated primarily on the direct labour and materials that could be directly traced to a product. The requirement for the clear assignment of direct labour and materials is that these costs are caused by the cost object. The second step involved allocating indirect costs to these products. Indirect costs, in contrast, cannot be easily assigned to a cost object although it may be a significant cost. The traditional approach for distributing indirect costs to cost objects was usually based on working time, that is, direct labour hours. It was the usual practice to estimate these costs annually and then allocate them across products according to an expected level of activity. “Full cost” is simply the addition of direct costs and allocated indirect costs.

However, the usefulness of this traditional two-step approach in enabling managers to evaluate performance has been questioned. Opponents of these traditional approaches (Kaplan, 1984; Cooper & Kaplan, 1987; Cooper, 1988; Christensen & Sharp, 1993) argue that they failed to recognise the need to more accurately allocate indirect costs. These authors report that inaccuracies in traditional costing techniques are claimed to result from or to be exacerbated by:

- a decrease in direct labour force;
- the high incidence of technological change;
- the general decrease in the costs of information technology and accounting systems;
- the growth in product diversity;
- the growth in competition; and
- the extent of de-regulation.

These factors are the reason why the traditional practice of costing is charged with being outdated: since it distorts the realities of performance (Johnson & Kaplan, 1987; Cooper, 1987; Stevenson, et al, 1996; Cokins, 1997). The allocation of these indirect costs on the basis of direct labour is made without consideration for the department or products that give rise to them. Thus it has been suggested also that the concentration of traditional cost accounting has been like “trying to drive a car down a motorway using only the rear-view mirror” because of its inadequacy in fully informing managerial decision making (Clarke & Tagoe, 2002: p 10). The increasing proliferation in the number of products for which costs are collected, and the improvements in production technology increase the complexity of accounting systems (Dowd, 2001).

Hence, the challenge for organisations is to find ways to increase the traceability of indirect costs. To do this and to ensure that the appropriate amount of costs is assigned to relevant cost objects it is increasingly common to classify costs in more detail than simply “indirect”. Further classifications attempt to base indirect costs on those factors that drive the costs (that is, the cost drivers⁴). “A change in the cost driver causes the total cost of the cost object to change” (NSW Treasury, 2002: p 15).

An ABC system achieves improved accuracy in the estimation of costs by using multiple cost drivers to trace the cost of activities to the products associated with the resources consumed by those activities. This approach is in contrast to the traditional costing approach that maintains one large overhead pool with a single activity rate, based on a cost driver such as direct labour hours. The basic argument for superiority of ABC is that, while traditional costing systems are much less expensive to implement, these systems can introduce considerable distortions in product costing. The product-mix, pricing, cost control, and other decisions made by managers using these distorted cost numbers can then lead to severe long-run losses. To avoid such sub-optimal decisions, organisations are encouraged to use ABC, since it provides better information to decision-makers. This conclusion is the commonly held view presented in most management accounting textbooks (Kaplan

⁴ A cost driver is the action that causes costs to be incurred

& Atkinson, 1989; Cooper & Kaplan, 1991; Brimson, 1991; Hilton, 1991; O'Guin, 1991; Hoggett & Edwards, 1992).

In general terms, ABC is an approach to the assignment of product costs that identifies all the major operating activities, including “those events and circumstances that cause and drive these activities” (Needles, Anderson, & Caldwell, 1996: p 1203), and categorises costs by activities. Activities are traced and identified, thereby improving the awareness of activities that drive the overhead costs. Smaller cost pools are created resulting in numerous cost assignments. Under this approach, “the cost of a service or product is the sum of the costs of all the activities required to manufacture and deliver the service or product” (Cooper, 1988: p 46). As a result, more accurate cost information (than the traditional approach) is calculated and an improved information base is provided about possible solutions for controlling costs (Kaplan, 1984; Cooper & Kaplan, 1988; Cooper, 1988; Christensen & Sharp, 1993). It is considered that ABC produces a better result (than traditional cost systems) in an environment where there is diversity in product line, customers and services (Ainsworth, 1994: p 28).

The literature is filled with commentaries and studies concerning the implementation of ABC in various types of organisations: manufacturing, professional service, and financial service. With the exception of health agencies and universities, there are limited studies concerning the implementation of ABC within public sector agencies.

Perhaps the most extensive study examined the implementation of ABC at General Motors from the mid-1980s to the early 1990s (Anderson, 1995). Anderson used highly detailed interviews, archival information, and direct observation to chronicle the history of the decision to implement ABC in General Motors. Anderson was able to develop a theory of implementation that suggests how contextual, organisational and technical factors impact on an organisation as it goes through the stages of implementation.

Several other case studies and surveys have also documented the implementation of ABC indicating that organisations benefit from the system. Examples of these studies are shown in Table 3.3.

Author/s	Focus of Study	Findings of Study
Haedicke & Feil 1991	Organisation's experience with the implementation of ABC	Assisted management to achieve world class
Swenson 1995	Operational manager's satisfaction with ABC	Improvement in product costing and cost control
McGowan & Klammer 1997	Employees' satisfaction with ABC implementation	The results indicate that overall satisfaction of employees was favourable
McGowan 1998	User perceptions of the benefits of ABC	ABC viewed as superior in providing more accurate, reliable, timely and understandable information
Kennedy & Affleck-Graves 2001	Impact of ABC on firm performance	Firms adopting ABC costing techniques outperformed non ABC firms by approximately 27% over the 3 years post-implementation
Brewer, Juras & Brownless 2003	Perceptions of benefits of ABC	Improvement in product cost accuracy and cost visibility

Table 3-3 Studies indicating benefits from the implementation of ABC

While various studies report significant benefits from the implementation of ABC a number of surveys report a low adoption rate amongst organisations. For example, a survey of 92 companies in Malaysia conducted by Chun, Kassim, & Minai (1996) found that ABC is infrequently encountered. Results from various surveys report similar discouraging results. Examples of these survey studies are presented in Table 3.4.

Author/s	Adopters of ABC (%)	Non-Adopters of ABC (%)
Drury et al 1993 in Drury & Tayles 1994	24%	76%
Ness & Cucuzza 1995	10%	90%
Stevenson, Barnes & Stevenson 1996	29%	71%
Chosh & Chan 1997	12%	88%
Gunasekaran, Marri, & Yusuf 1999	2%	98%
Drury & Tayles 2001	25%	75%
Kiani & Sangeladji 2003	52%	48%
Maelah & Ibrahim 2006	36%	64%

Table 3-4 Survey results of the adoption of ABC

These survey results indicate that, despite the publicity surrounding ABC, many organisations have not made major changes to the sophistication of their systems. Furthermore, while several researchers report benefits from the implementation of ABC, a more extensive analysis of these reports highlights instances where these benefits were not sustained. For example, while General Motors commenced the implementation of ABC in 1986 and soon became known as a leader in ABC, by 1993, only two of the many GM plants that had installed ABC systems were using cost data in fundamentally different ways (Krumweide, 1997: p 239-277). There are a number of reported dissatisfactions with the ABC approach after implementation because the organisation either failed to act on the results, or the proposed users were slow to access it for decision making (Jayson, 1994: p 27).

A large number of ABC implementations have been reported as failing to produce tangible benefits (Innes & Mitchell, 1990; Shields, 1995; Selto & Jasinski, 1996; Drury & Tayles, 2001). While reports from researchers, such as Pattison & Arendt (1994), Ness & Cucuzza (1995), and Player & Keys (1995), advocate for the superiority of ABC they also claim that failures have resulted from poor implementation. Although a number of firms have adopted or explored the feasibility of adopting ABC, only a few have enjoyed significant benefits from it.

Goddard & Ooi (1998), in examining the application of ABC to library services at a University, reported that implementation problems of ABC render it less efficient than the theory suggests. These authors noted that there are significant costs associated with developing and maintaining an ABC system relative to traditional methods. Maintenance of such a system is relatively expensive as cost driver rates need to be recalculated periodically. Producing a system for all central overheads is very expensive. Furthermore, these authors suggest that subjectivity and interpretation are not entirely removed from the system. Decisions concerning the number and selection of activity cost centres, as well as, the selection of cost drivers are subjective.

While Drury & Tayles (2001: p 39) found from their survey of 200 firms within manufacturing and service businesses, that although approximately 25 per cent of respondents said that they used ABC to generate costs for decision making and for cost-management purposes, most firms used fewer cost pools and drivers than recommended. This implies that, despite the publicity about the development and implementation of ABC, many organisations have not made major changes to the sophistication of their systems.

Kiani and Sangeladji (2003: p 174) conducted a survey which was distributed to controllers and managers at the 500 largest industrial companies in the USA. Out of the 85 responses that proved useful for analysis, 41 did not use ABC in their operations. These authors report (p 174-179) that the major obstacles identified by those that did not use the model included:

- inadequate support from top management;
- cross-functional cooperation not achievable;
- the accounting system not supporting ABC;
- perception that ABC was a passing fad;
- unwillingness of people to change;
- shortage of competent personnel; and
- complexity in process design.

This view is also supported by Ho & Kidwell (2000: p 50). These researchers conducted a survey in which government administrators were asked about their use

of and attitudes toward contemporary tools including ABC. They found that government executives were more enthusiastic about tools such as process reengineering and benchmarking than they were for tools such as ABC. The authors reported that the primary impediments to the adoption of ABC are a lack of buy-in from employees, a lack of skills and competence in developing or implementing the system and an aversion to change. These results, they argue, point to the importance of training and education in achieving a successful implementation of ABC techniques.

The poor adoption of ABC techniques may not necessarily indicate a failure of the technique, but “suggest an incompatibility of the technique with some understandings of the way the organisation should move forward in an environment of rapid change” (Gurd & Thorne, 2003: p 21). The poor adoption of ABC and the reason for its apparent failure is usually assumed to be a poor implementation process (Innes & Mitchell, 1990; Pattison & Arendt, 1994; Shields, 1995; Player & Keys, 1995; Mishra & Vaysman, 2001). While organisations may commence the process of building an ABC model, there appears to be a lack of commitment from management to continue building and improving the model (Gurd & Thorne, 2003: p 28).

“Probably the most crucial threat to the successful implementation of an ABC system for allocating central overheads is the political consequences” (Goddard & Ooi, 1998: p 38). As the use of an ABC system affects actual resource allocation in an organisation it is likely to be resisted by groups that perceive that they will lose out in the short term. The use of ABC in targeting labour cost reductions in particular, can lead to its being associated with redundancies and cost cutting. On the other hand, without the full commitment and support from all the organisational groups, it will be difficult to obtain the full benefits of an ABC system. Goddard & Ooi (1998: p 38) suggest that in many cases the “political considerations may well influence the selection of system more than the economic considerations”. This can result in its adoption being viewed with some apprehension and lead to difficulties in gathering accurate data about the activities of staff (Gunasekaran, 1999: p 118-126).

Of relevance to this research, these political considerations suggests, therefore, that the success with which a public sector agency adopts ABC techniques is largely dependent on how it identifies and accommodates a range of organisational issues that it faces. Public sector agencies, like other organisations, become institutionalised through rules, routines and through unquestioned assumptions about the conduct of the agency. Accounting practices are a routine feature of business. For example, the practice of budgeting within public sector agencies is institutionalised because they are simply “the way things are done”. As such the assumptions relating to budgeting practices may be incapable of challenge at least by those people within the agency who share these assumptions. These assumptions may include views that contemporary costing techniques will not impact significantly on the way in which agencies are funded through the budgeting processes of government. As such a change to ABC, which may challenge existing rules and routines and institutions within an agency, is likely to be a source of conflict or resistance (Burns, Ezzamel & Scapens, 1999: p 29). As long as support for established practices is strong within an agency, the uptake of new practices is unlikely. This may be the reason why Wildavsky (1966: p 303) argues that the definition of government programs, and subsequently budgets, is inextricably linked to the political system, thus explaining why traditional practices of government remain unchanged despite the introduction of contemporary techniques. In reviewing the USA experiences with implementation with ABC, Radin (2000: p 134) contends that the history of failures within the USA public sector in adopting contemporary techniques has the potential to breed a sense of cynicism within government agencies. His comments indicated that too often these reforms have evoked a compliance mentality and cynicism amongst those employees who were employed with the bureaucracy. It is only when the shortcomings of these practices become clear will new practices become adopted (Modell, 2004: p 40).

Given these studies, the question begs, “Why do some studies consider ABC to be the most suitable costing method for an organisation despite the fact that the reported arguments against ABC are as many as those for ABC? In particular, why do governments consider ABC to be the most suitable costing method for public sector agencies?”

Much of the research surrounding ABC has been conducted in the private sector, in particular, the manufacturing sector. However, ABC concepts also improve cost measurement and allocation information for service departments in manufacturing organisations. It seems that on this basis, service industries, including the public sector, can also utilise ABC to enhance their operations. While, Cooper (1988) demonstrates the benefits of ABC against a manufacturing background, he argues that most of them should apply more generally. In fact, the use of ABC is not to be limited to manufacturing companies; rather, it is used in many service, not-for-profit and governmental organisations (Rotch, 1990; Harr, 1990; Antos, 1992; May & Sweeney, 1994; Scapens, Ormston, & Arnold, 1994; Groves, Pendlebury, & Newton, 1994; Goddard & Ooi, 1998; Cox, Downey, & Smith, 2000). For example, Table 3-5 shows a summary of studies that have relevance for this research in terms of the valuable learnings they bring with them.

Study	Author
59 government activities in USA	Martinson (2000)
Banking	Bamber & Hughes (2001)
Defence	Schmidt (1999)
Electric utilities	Dowd (2001)
Government contracting	Grange (2005)
Health sector industry	Webster & Hoque (2005)
Health services	Arnaboldi & Lapsley (2005)
Hospital care	Eden, lay & Maingot (2006)
Hospital care	Paulus, Van Raak & Kaeizer (2002)
Hospital care	Carr (1993)
Information Technology	Krunweide & Roth (1997)
Information Technology	Neumann, et al (2004)
Library services	Goffard & Ooi (19980)
Library services	Heaney (2004)
Local government	Kennett, Durler & Downs (2007)
Policing	Greasley (2001)
Postal services	Carter, Sedaghat & Williams (1998)
Service industries such as telecommunications	Bussey (1993)
Shared Services	Triplett & Schuemann (2000)
Teaching Hospital	Mackie (2006)
Universities	Cropper & Cook (2000)
Universities	Scapens et al (1994)
Universities	Cox, Downey & Smith (2000)

Table 3-5 Studies of ABC in Service & Government Industries

There is little doubt that service industries form a large and growing proportion of the Queensland economy. In 2001⁵ almost 39% of the workforce was employed in the service industries, with approximately 58% of these within the government, education, health and community services sector. In the service industries most costs are categorised as indirect. Allocating indirect costs and costing activities are very important for satisfying customer expectations, improving quality, and reducing process costs.

ABC is concerned with the allocation of indirect costs. The allocation of indirect costs has long been the source of discontent within organisations, with misallocations being blamed for inaccurate costs. Since indirect costs as a percentage of total manufacturing costs have been steadily increasing (Ruhl & Bailey, 1994; Agrawal & Siegel, 1998) there may be a greater chance for distortion.

In summary, while the traditional classification of costs appears relatively simple, it has its limitations. One such limitation is that it implies that costs are a function of activity. However, it is more likely that there are more factors which influence costs, such as the complexity and diversity of products or services that result from differences in design, maturity, volume or scope of the service. Opponents of these traditional approaches argue that they failed to more accurately allocate indirect costs since they used an arbitrarily selected cost driver like direct labour hours. The challenge for organisations is to find ways to increase the “trace-ability” (Martinson, 2002: p 20) of indirect costs. An ABC system achieves improved accuracy in the estimation of product costs by using multiple cost drivers to assign the cost of activities to the products consuming the output from those activities. While several researchers report benefits from the implementation of ABC, a more extensive analysis of these reports highlights instances where these benefits were not sustained. Furthermore, a number of studies report the low adoption rate of ABC amongst organisations. The poor adoption of ABC and the reason for its apparent failure is usually assumed to be a poor implementation process and a lack of commitment from management to continue building and improving the model.

⁵ Australian Bureau of Statistics (2001), 8140.0 - Business Operations and Industry Performance, Australia, 2000-01

The next section of the chapter examines more fully the basis on which indirect costs are distributed using the ABC approach within a government agency.

3.2 *Measuring Costs – An ABC Model for Public Sector Agencies*

Traditionally, government agencies have collected costs associated with their departments, branches or business units. However, increasingly agencies seek to collect costs associated with activities and outputs. The processes used by an agency for measuring costs for these different views is, in the first place, dependent on the processes used by the agency for gathering costing information. Secondly, it is dependent on the processes it uses for choosing those items for which costs are sought.

The process of measuring costs commences with the collection of cost information. The usual way in which this is achieved is by translating raw accounting data contained in the agency's general ledger into what is known as cost elements. This translation reflects the information needs of management. Cost elements document costs that are divided into different types incurred within a particular accounting period. They typically correspond to the general ledger accounts required for profit and loss determinations. However, additional cost elements may be added to provide the lower level of detail needed for more accurate cost assignment. Figure 3.1 presents a typical accounts structure for collecting costs.

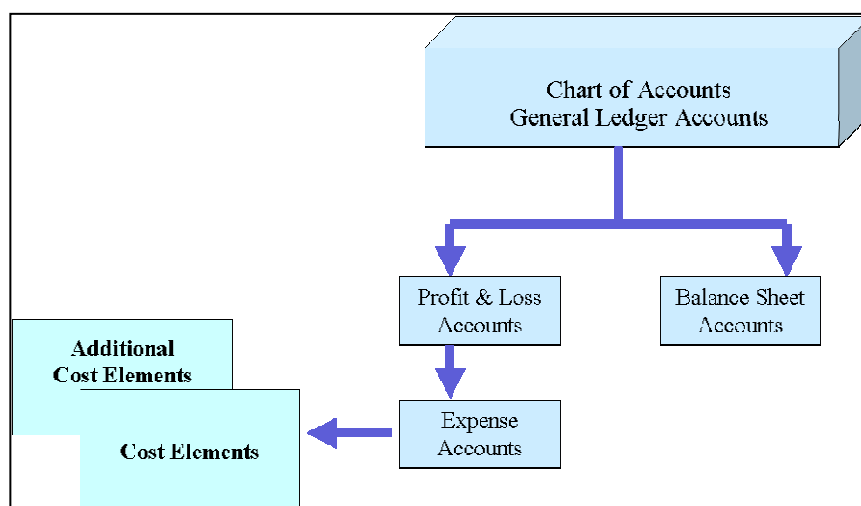


Figure 3-1 Typical accounts structure for collecting and assigning costs

Once cost elements are established and the raw cost items are available to be collected the agency may then decide on those cost objects for which costs are to be

measured. The definition of a cost object depends on the attributes that the agency assigns to it and the purpose for which it serves. Typically, an agency has “different views of costs” that it wants to measure (Geiger, 1999a: p 47). Such views include costs by organisational function, costs by activity, and costs by output. The level of detail along with the frequency with which the information is required for these views may also vary. Consequently, it is essential to commence with an understanding of the needs of management prior to proceeding with the task of measuring costs as this will determine the detail required to be collected at the cost element level. The agency may then design how direct and indirect costs are assigned to cost objects.

While direct costs are easily traceable to cost objects, the method by which an agency assigns indirect costs is problematic. The ABC model requires indirect costs to be aggregated and accumulated into cost pools for subsequent assignment to cost objects. Any criticism of the results of cost measurement is often brought about in part by the methods of aggregation that an agency uses in the accumulation of indirect costs. The two assumptions underlying ABC are (Roth & Borthick, 1991: p 39):

- Homogeneous cost drivers (activities) drive the costs in each cost pool.
- The costs in each cost pool are strictly proportional to the activity.

Hence, in deciding which indirect costs to aggregate, it is necessary to analyse the degree of homogeneity in these costs. The homogeneity assumption means that the costs assigned to each cost pool are driven by one activity or a group of highly correlated activities. When activities are highly correlated, only one of the activities needs to be used as a cost driver since a change in the level of that activity results in a proportional change in the other activities. The choice of cost driver is important in that it can have a significant impact on the accuracy of the cost measurement system of the agency.

Cost drivers must consider behavioural motivation, measurement credibility, and cost of measurement issues. A useful driver that is not credible or is extremely costly is not fit. A credible driver that is easy to

measure, but not managerially useful, or is costly to measure, is not fit (Geiger, 1999b: p 36).

Given that pools of costs to be assigned using the ABC system are reasonably homogeneous, there are at least three methods for assigning indirect costs each with varying degrees of accuracy: estimation (NSW Treasury, 2007); sampling (NSW Treasury, 2007); and indirect allocation (Geiger, 1999a). Estimation involves the assignment of indirect costs to services based on the judgment of management (NSW Treasury, 2007: p 27). Sampling involves approximating the amount of time applied by employees for each service on an ongoing basis. The proportion of time spent on each service by each employee may then be used to assign indirect costs (NSW Treasury, 2007: p 41). The indirect allocation method involves grouping indirect costs into cost pools and uses a cost driver to apportion these costs to cost objects (Geiger, 1999a: p 48).

Each method has an appropriate application. For example, estimation is appropriate where management does not require high levels of accuracy in cost measurement, while indirect allocation is applied where the assignment of costs to the particular cost object is important. The choice of method, therefore, appears to be based on the degree to which managers need precision in their cost information. Evidence from Australian jurisdictions (Queensland Treasury, 1998; Commonwealth of Australia, 1999; Government of Western Australia, 2001; NSW Treasury, 2007) suggests that when costs cannot reasonably be assigned directly, they are assigned on a reasonable cause-and-effect basis or by some other general basis. The indirect allocation method has the ability to “provide ‘good enough’ measurement at reasonable cost” (Geiger, 1999a: p 49).

Contemporary enterprise resource planning (ERP) systems, such as SAP R/3⁶, enables an organisation to measure costs concurrently from multiple views. Hence, opportunities exist for the agency to design costing models that satisfy more than one cost view. Public sector agencies commonly measure costs from two views. These two views are:

⁶ Developed in Germany, SAP (Systems, Applications and Products in Data Processing) is a global provider of the R/3 system which is built with a fully integrated, modular structure for business application solutions.

- (i) Cost measurement by organisational function, and
- (ii) Cost measurement by activities and outputs.

3.3 Cost Efficiency and Cost Effectiveness

Ostroff & Schmitt (1993) suggests that efficiency and effectiveness are performance domains that are clearly distinguishable. Efficiency refers to the relationship between resources consumed and activity undertaken or outputs produced (Van Peurseem & Pratt, 1995: p 40), while effectiveness refers to the absolute level of goal attainment (Ostroff & Schmitt: 1993: p 1345). The collection and reporting of performance measures has a strong link with the collection of cost data, particularly when such measures include measures of cost efficiency and cost effectiveness (Rivenbark & Carter, 2000: p 136). Cost per activity or cost per output is one measure of efficiency, while cost per outcome is a measure of cost effectiveness and gives management an indication of “the impact of each dollar spent” (Tishlias, 1992: p 27).

The distinction between cost efficiency and cost effectiveness is shown in Figure 3.2.

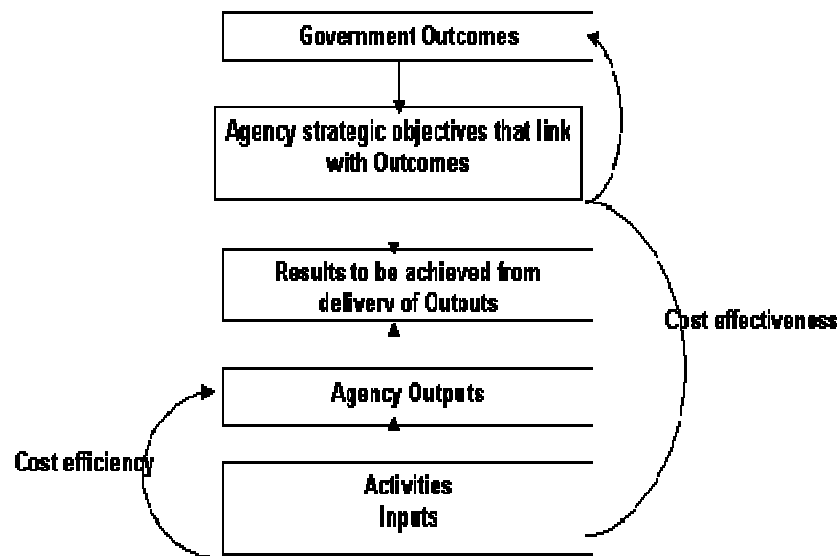


Figure 3-2 Measuring Cost Efficiency and Cost Effectiveness
 (Adapted from NSW Treasury, 2000: p 11)

Many measures commonly used in public sector organisations adopt an input-oriented perspective and are usually expressed in terms of cost, budget and staffing totals. Some of the more generic measures used by the public sector include cost per

case, cost per service type, and numbers and categories of staff involved. The outputs from the agency can also be easily measured in quantifiable terms such as patients treated, crimes solved, students gaining various qualifications at different grades, children placed in foster care, kilometres of road constructed, and so on. An increase in the number of outputs, for a given input, simply demonstrates how efficiently an agency is converting its inputs into outputs but provides very little information about the effectiveness or value of these outputs (Boland & Fowler, 2000: p 417-446).

Cost efficiency techniques of measurement are based on those theories discussed previously in this chapter. ABC is considered to be the most appropriate means of estimating the costs of activities and outputs (Cooper & Kaplan, 1992). It includes mapping the processes involved in service delivery, determining the costs of those processes and understanding what causes those costs to be incurred. Many statistical techniques are also available for use to measure efficiency and the factors that influence it. Such techniques include regression analysis, frontier analysis and data envelopment analysis⁷.

Assessing cost effectiveness, however, involves choosing amongst alternative courses of actions in terms of their costs and their effectiveness in the attainment of government outcomes. These techniques are outcome-oriented. As such, cost effectiveness is monitored from a strategy viewpoint rather than a functional or process viewpoint. Cost effectiveness refers to the effect or impact achieved per dollar spent. With this measure, an organisation can compare alternative service delivery methods on their relative success and the cost to achieve that success (Riverbark & Carter, 2000; Pizzarella, 2004).

Cost-effectiveness analysis assumes that a certain benefit or outcome is desired, and that there are several alternative ways to achieve it. By definition, therefore, cost-effectiveness analysis is comparative. Programs are studied and compared on the basis of some other common scale for measuring outcomes (e.g. number of students who graduate from high school, infant mortality rate, test scores that meet a certain

⁷ The use of statistical techniques is outside the scope of this research. However, reference may be made to Banker, R. (1984), Banker, R., Das, S. and Datar, S. (1989), and Charnes, A., Cooper, W. and Rhodes, E. (1978) for further examination.

level, reports of child abuse). They address whether the unit cost is greater for one program or approach than another, which is often much easier to do, and more informative, than assigning a dollar value to the outcome (White, 1988).

Although the best-performing agencies are likely to both cost effective and cost efficient, there may often be situations where there are trade-offs between the two (King, 1970: p 45). Progression along one dimension could entail regression along the other. “A change in service delivery may increase the level of resources per unit of output (a decrease in measured efficiency) but lead to better outcomes (an increase in effectiveness) ... Performance assessment should thus consider both efficiency and effectiveness indicators.” (SCRCSSP, 2003: p 1.11). Thus, an agency can be effective, efficient, both or neither (Ostroff & Schmitt, 1993; Roy, 1996).

Techniques for building cost and effectiveness relationships have been adopted by several Australian public sector jurisdictions. For example, the Steering Committee for the Review of Commonwealth/State Service Provision (SCRCSSP, 2003) provides information on the effectiveness and efficiency of Commonwealth, State and Territory government services as a means for “enhancing measurement approaches and techniques in relation to aspects of performance such as unit costs and service quality” (SCRCSSP, 2003: p 1.1).

Governments are continually re-evaluating whether the community is receiving the appropriate service mix and whether the services are reaching those most in need. Moreover, governments need to know whether their policies are effective and whether those policies are being implemented efficiently (SCRCSSP, 2003: p 1.3).

With a concentration on performance, the MFO policy aims to improve the efficiency, effectiveness and accountability of government service delivery. This section along with earlier sections of this chapter examined cost accounting practices, specifically those related to ABC, that have application to the Queensland Government in achieving the objectives of the MFO policy. While there is merit in selecting these techniques for assessing public sector performance, government agencies continue with not providing the necessary linkages between the cost of resources used and the output or results they produce (Martinson, 2002: p 22-24).

For example, the 2007-08 budget papers for the Queensland Government's provider of public schooling allocate its corporate and professional services budget across its core products and services that are delivered to the Queensland community. In the department's Annual Report⁸ it is explained that all corporate overheads are allocated across respective outputs and activities on the basis of activity drivers. However, simple calculations of the budget papers indicate that this allocation is unlikely to be based on activity drivers - rather it is more likely based on a fixed percentage basis. Possible reasons for this situation are that there continues to be a strong focus on budget performance as opposed to cost performance within the public sector environment (Aidemark, 2001: p 557).

While public sector jurisdictions do not make ABC mandatory it continues to be the method that is recommended (Ewer, 1999; Queensland Treasury, 1998; Commonwealth of Australia, 1999; NSW Treasury, 2007). Consequently, it is apparent that a costing technique, based on the mapping of activities, can achieve a more focussed operations and customer-oriented management approach (Kullven & Mattsson, 1994: p 23). While agencies might make trade-offs in terms of the accuracy versus the cost of the system, the ABC method of calculating costs provides more accurate costs than traditional approaches of using standard rates. As such factors affecting the adoption and application of ABC should be considered by the Queensland Government in its attempts to adopt appropriate cost management practices that support the objectives of the MFO policy.



3.4 Key Theoretical Principles

The convergence of the principles of MFO and MAP, proposed in Chapter 1 (refer Figure 1.1), is concerned with the following:

- measuring the cost of service delivery through the application of contemporary cost management techniques; and
- measuring government service delivery through the application of performance measurement techniques.

⁸ Department of Education, Training and the Arts, Annual Report 2005-06, p141

This chapter relates to that which informs an agency of the cost of its programs. The nature of the convergence of the practices associated with cost management can be expressed as a set of theoretical principles. These principles are used to examine the extent to which contemporary cost management practices contribute toward achieving the objectives of the MFO policy. The following principles were developed to guide the investigation into research problem, RP-1. Along with the principles developed in Chapter 2, they guide the collection and analysis of data for the investigation of the extent to which MAP can contribute to achieving the objectives of the Queensland Government’s MFO policy.

Research Problem RP-1
RP-1 To what extent can contemporary management accounting practices contribute to achieving the objectives of the Queensland Government’s “ <i>Managing for Outcomes</i> ” policy?

RQ-4 What type of costing information is required to be reported under the MFO policy?
RQ-5 Is activity-based costing an appropriate costing model for agencies to use in calculating the cost of its products and services and in assessing the efficiency and effectiveness of service delivery?

<u>Principle CM-1:</u>
Public sector agencies are able to determine the cost of service delivery when they apply the following techniques:
<ul style="list-style-type: none"> ▪ use of methods to assign direct costs to cost objects; ▪ identification of cost pools and cost drivers for the allocation of indirect costs to different cost objects, including outputs and activities; ▪ employment of contemporary costing methodologies, such as ABC, to improve the accuracy of cost information.
<u>Principle CM-2:</u>
Public sector agencies are able to choose amongst alternative courses of action in terms of their costs when they employ techniques associated with measuring cost efficiency and cost effectiveness.

3.5 Conclusion

This chapter examined the theories of cost accounting that centre on ABC methodologies. Cost represents the value of resources that have been consumed to achieve a particular objective of the agency. The quality of management information required by agencies is dependent on the processes used by the agency for gathering costing information and for choosing those items for which costs are sought. Increasingly government agencies seek to collect costs associated with outputs, programs, and activities within programs and projects. It is the choices of cost objects and cost classification which affect how costs are assigned to cost objects.

Typically, an agency has different views of costs that it wants to measure. Such views include costs by output, costs by activity, costs by project, and the like. Consequently, it is essential to commence with understanding of the needs of management prior to proceeding with the task of measuring costs.

Assigning direct costs is a relatively simple process for agencies since they can be attributed directly to an output. The process of allocating indirect costs, however, requires the identification of a measure, or cost driver that can be used to distribute proportionately the cost to relevant cost objects. The choice of cost driver is important in that it can have a significant impact on the accuracy of the cost measurement system of the organisation.

Several studies have reported benefits from the use of ABC to an organisation in terms of improved product costing, and cost control. However, a number of surveys report a low adoption rate amongst organisations. Additionally, a more extensive analysis of these reports highlights instances where the benefits of ABC are not sustained. While reports from researchers advocate the superiority of ABC they also claim that failures have resulted from poor implementation and a lack of commitment from management to continue building and improving the model. As the use of an ABC system affects actual resource allocation in an organisation it is likely to be resisted by groups that perceive that they will lose out in the short term.

The choice of method for allocating costs (estimation; sampling; indirect allocation) depends on the agency's need for accuracy, completeness and cost. The cost

effectiveness of using the indirect allocation method is the reason why it has become a popular methodology in ABC. Inaccuracies are more evident when the basis for allocating costs is done on a general or estimation basis.

For cost accounting to serve a useful role in an agency this review suggested that its design should improve the agency's capability to measure resources consumed in accomplishing a specific purpose, performing a service, providing a product, or carrying out a project or program. This requires a need to understand the configuration of activities and how they interrelate. The interrelation of activities is determined upon consideration of the organisational structure of the agency and where joint responsibility for costs is shared within it. The capability to measure resources consumed is achieved through obtaining different views of costs to be determined including product, function and business process.

Measuring the cost of outputs is one of the primary functions of a cost accounting system in a government entity. ABC is a methodology that links resource consumption to the activities performed by an agency and then links those activities to outputs.

The use of such ABC cost information enables management to improve continuously the efficiency of the activities (that is, delivering the outputs at a lower cost) and the effectiveness of the activities (that is, delivering quality outputs that contribute positively to government outcomes). Assessing cost effectiveness involves choosing amongst alternative courses of actions in terms of their costs and their effectiveness in the attainment of government outcomes.

Convergence between the objectives of the MFO policy, and the cost management practices were presented. Theoretical principles based on this convergence were developed. These key principles inform the examination of research problem, RP-1. They guide the collection and analysis of data for the investigation of the extent to which MAP can contribute to achieving the objectives of the Queensland Government's MFO policy.

The next chapter presents the research methodology employed by this research. It explains the components of the mixed-method design, including feedback from a

critical group of practitioners, document analysis, and a case study including interviews. It defines the data collection activities needed to address research problems RP-1 and 2 and research questions RQ-1 to RQ-5. Chapter 4 describes a structured approach which provides for an action plan for getting from the research problem to the research conclusions and provided a basis for structuring data collection and analysis.

CHAPTER 4 RESEARCH METHODOLOGY

4.0 Introduction

This research, using an insider research approach, investigates the application of MAP for achieving public sector OBPM in Queensland under its MFO policy. A conceptual framework was developed in Chapters 2 and 3 for implementing the MFO policy within the Queensland public sector environment to which MAP may be applied. This research identifies specific principles that drive a performance-based environment in which outcomes-based performance is measured and for which costs are determined. On developing this framework, and in relation to RP-1, this research determines whether there is support for the theoretical principles within the Queensland Government agency selected for investigation. In the second place, in relation to RP-2, it determines the extent to which the MAP proposed in this research are adopted and applied by the case study agency in order to achieve the objectives of the MFO policy. See Table 4.1.

Research Problems	
RP-1 To what extent can contemporary MAP contribute to achieving the objectives of the Queensland Government's " <i>Managing for Outcomes</i> " policy?	<u>Research Methodology</u> (Chapter 4) Critical Group of Practitioners Document Analysis Case Study and Interviews
RP-2 In the selected case study, involving one Queensland Government agency, what support can be found for the MAP proposed by this research? To what extent are these proposed MAP adopted and applied in order to achieve the objectives of the " <i>Managing for Outcomes</i> " policy?	

Table 4-1 Purpose of Chapter 4 - Research Methodology

There is a fairly direct relationship between research and practice (McLeod, 1999). This research is undertaken as means of improving the practice of OBPM within the Queensland public service (Coghlan, 2001; Coghlan & Brannick, 2001; McNiff & Whitehead, 2002 in Workman, 2007). This research adopts an insider research approach, that is, this research is conducted by an employee of the Queensland public service in and on her own organisation. This is contrasted to research that is conducted by researchers who might temporarily join the organisation for the purposes and duration of the research (Adler & Adler, 1987). The researcher retains the choice of remaining an employee when the research is complete. As such, this

research draws on the insights of the researcher to obtain rich data and through the process of reflexive awareness and careful judgement, “articulates tacit knowledge that has become deeply segmented because of socialisation in an organisational system and reframes it as theoretical knowledge” of what really goes on in the agency selected for this research (Brannick & Coghlan, 2007: 60).

To limit the risk of being criticised of “going native” (Morse, 1998) and therefore losing objectivity (Rooney, 2005; Alvesson, 2003), this research uses a mixed method approach to ensure the standards of academic rigour.

This chapter provides justification for the choice of mixed-method approach to the research (Jick, 1979, Polit & Hungler, 1995, Flick, 1998). It explains the components of the mixed-method design, including the research questions that determine the data collection activities; the basis on which a critical group of practitioners, documents, the particular case study and the participants were selected; and the framework underpinning the data analysis and interpretation. Finally, this chapter also deals with the limitations associated with the adoption of this methodology.

4.1 Mixed-Method Study

Based on the literature and the conceptual frameworks developed in Chapters 2 and 3, the research questions are translated into a set of propositions. These propositions set out the expected findings from this research. The data collection and analysis is then structured in order to support or refute the research propositions (Rowley, 2002: p 19). To meet the objectives of this research a mixed-method approach is adopted. The rationale for this approach is triangulation (Jick, 1979) and is deemed necessary to not only determine support for the theoretical principles developed in Chapters 2 and 3 but also to determine the extent to which MAP is adopted in the Queensland Government agency selected for this research. The design offers the prospect of enhancing confidence in the findings in which richer data is provided enabling a more complete and deeper understanding of the concepts investigated. Thus it will enhance the possibility of exposing information that may remain undiscovered if only one method is used (Polit & Hungler, 1995). The use of a

mixed method approach is therefore likely to add breadth, complexity, and richness to an inquiry (Flick, 1998).

A combination of briefings, consultations and feedback with a critical group of practitioners, document analysis, and case study interviews are used. This research process generates both quantitative and qualitative data that contribute to the triangulated analysis. The way in which each method is utilised and the method for data collection is provided in the following sections.

4.1.1 Critical Group of Practitioners

The critical group of practitioners was used in the co-creation of knowledge in the development of the theoretical principles. “Professions are characterised by the sophistication of their practitioners’ knowledge, understanding and skills We also see critical friendship as a potential strategy for enhancing research” (Golby & Appleby, 1995: p 149-150).

The strength in utilizing the critical group of practitioners lies in the co-operative style of inquiry that sought to (Heron & Reason, 2001):

- Draw on the extant knowledge of practitioners;
- Understand the purposes of the MFO policy and to develop new and creative ways of seeing how OBPM should work; and
- Learn how to implement OBPM better.

The researcher held briefings, consultations and feedback sessions with the critical group of practitioners to develop the theoretical principles. This group’s contribution to generating these principles achieved a series of iterations through (Reason, 1999):

- A cyclical process of briefings, consultations and feedback;
- A co-operative peer group; and
- Reflective inquiry by the group.

This provided the researcher with the opportunity to acquire “understanding in use” rather than “reconstituted understanding” (Meehan & Coghlan, 2004: 412)

The group was also used to refine questions asked during the interviews.

The formation of the critical group of practitioners requires a definition of what a critical practitioner would be in the scope of this research design. The researcher determined that a member of the group would need to have a working knowledge of OBPM as it applies to the Queensland Government.

In the first place, members were assessed as having a “working knowledge” if they are currently employed in the professional areas of performance reporting, performance measurement, strategic planning, corporate reporting, performance evaluation, or cost accounting within a Queensland government agency. The selection and recruitment process was initiated by obtaining a listing of all Queensland Government employees in these areas. While approximately 26 group members were recruited from Queensland government agencies the researcher also deemed it important that members are representative of the various types of government agencies. Hence the process focussed on ensuring representation of agencies with social, economic and environmental foci. The recruitment was accomplished by having the researcher make personal phone calls explaining the research and the purpose for the critical group of practitioners.

In the second place, it was necessary that membership of this group include employees from central agencies that act as custodians for the Queensland Government’s performance management framework. Central agencies provide a leadership role to the agencies for the implementation of MFO. They also are responsible for advancing government policy priorities. For example, the Queensland Government's financial management framework forms the basis for decisions on planning, resource allocation and management, monitoring and reporting within the Queensland public sector. This framework applies to all government departments and agencies. The Treasury Department’s role is to work with agencies to map agencies' outputs to the outcomes, including the governance principles, and also to report performance against the Government’s outcomes in the annual Priorities in Progress report. The Premier’s Department is the central policy agency for the Queensland Government which provide policy advice and coordination services based on the Ministerial portfolios of the Queensland Government in relation to economic, environmental and social issues. It plays a vital

role in ensuring that the Queensland Government is able to progress its strategic policies and priorities and to respond effectively to major issues affecting Queensland. Hence membership from these central agencies was considered essential and 10 employees from central agencies were selected for the group.

The group was consulted about their views on the implementation of the MFO policy, and the processes and methods that agencies should follow in order to implement the policy. The group was briefed on six occasions on the theoretical principles developed in the research.. Since members of the group were chosen on the basis of extant knowledge, their feedback from the briefing sessions enabled more concise development of the theoretical principles. As such, the critical group of practitioners was an invaluable source of information on “what should be done” by agencies in implementing MFO.

The group was also invited to provide feedback in creating the interview questions that are succinct and acceptable to the agencies. Items in the interview were refined following several consultation sessions. It soon became obvious to the researcher that a superior interview guide was the by-product of this consultation. It provided an extra layer of expertise and perspective that would otherwise be missing from the use of only one research method.

4.1.2 Document Analysis

Documentation was analysed for the purposes of gaining knowledge of the Queensland Government’s MFO policy and the MAP-in-use at the agency selected for this research. The researcher considered it a useful method of gathering data about policy and practice where that is the focus of this research.

The analysis was undertaken examining MFO policy as well as materials and resources relevant to its implementation. The purpose of the analysis was also to examine materials relating to the adoption of MAP. Hence its purpose is to determine the relationships between MFO policy and MAP.

Document analysis provided an objective and historical source of data for a research study (Robson et al., 2001) and was used to corroborate evidence from other sources

and specify issues in greater detail than available through other data gathering methods (Burns, 2000: p 467). While this might be the case, the researcher considers that documents may only partially reflect reality, and may tell the researcher only what should be done, not whether it is actually done (Robson et al., 2001: p 71).

Documents selected for analysis included policy statements, guidelines, legislation, audit reports, agency planning documents, agency MPS, and agency annual reports. This document analysis provided a systematic approach to gather data regarding MFO policy and its implementation.

In addition to policy statements and guidelines, the researcher gathered information from relevant documentation pertaining to the expected performance of the agency selected for this research (AGENCY). As described in Chapter 2, AGENCY is required by legislation (FAAA, section 95) to ensure that its Annual Report communicate performance against the objectives and outputs identified in its Strategic Plan. AGENCY is also required to document its planned and estimated actual output performance in its MPS, which is presented to Parliament as part of the annual budget process. Full details for AGENCY's output performance plans are provided in these MPS, including published output measures of the quantity, quality, cost, timeliness and, where appropriate, location of services. Consequently, documents to be reviewed in the first instance include the Strategic Plan, MPS, and the Annual Report.

This review was conducted in the first place to determine consistency between Queensland policy statements and guidelines and the documentation of AGENCY. The review also assisted in determining the degree to which performance information is consistently communicated throughout all documents and the degree to which gaps exist in performance information and/or the "performance story" (McLaughlin & Jordan, 1999). An examination of AGENCY's key strategic documents was also made in light of the Queensland Government's policy for MFO. The researcher was concerned with the level of consistency between AGENCY's adoption of MFO and the Queensland Government's MFO policy statements.

Secondly, the researcher examined a copy of cost reports from the various business units of AGENCY in order to determine the types of cost information collected and

reported and the levels of disaggregation of cost information communicated throughout AGENCY. An examination of these cost reports will be compared with the Queensland Government's policy for the costing of government services.

This documentation review assisted the interviewer in framing questions to be posed to interviewees to gain their opinions on the MAP of their agency and/or work unit.

The documents selected for the document analysis are shown in Table 4.2 below. Documents analysed were grouped according to the research questions. The specific content that this analysis is targeting is also shown in Table 4.2.

Content analysis in relation to documents enables inferences to be made about data in relationship to its context which are both valid and replicable (Bell, 2000: p 111). The criteria for evaluating the quality of the evidence to be collected through an analysis of documents included authenticity, credibility, representativeness and importantly the meaning of the document and its contribution to the issues that the researcher is investigating (May, 1997). The content validity of the analysis will be discussed with the group of critical practitioners to ensure it adequately and sufficiently represented the MFO policy and MAP guidelines. The critical group of practitioners provided feedback on the adequacy of the analysis to achieve the objectives of this research (Burns, 2000: p 566-596).

Research Question	Documents	Targeted Content
The nature of MFO policy and OBPM in Queensland public sector	<ul style="list-style-type: none"> - Queensland Government MFO Policy Guidelines - Financial Management Standards (FAAA) 	<ul style="list-style-type: none"> - The legislative nature of MFO policy - Key principles of MFO policy - Definition and purpose of MFO policy - Implications of MFO for agencies - The guidance provided to agencies in undertaking OBPM including strategic planning, performance measurement and costing - Major elements of the MFO implementation plan
Type of performance information required	<ul style="list-style-type: none"> - Queensland Government MFO Policy Guidelines - Queensland Audit Office Better Practice Guide: Output Performance Measurement and Reporting 	<ul style="list-style-type: none"> - Types of performance information required - How performance is be measured. - Guidelines for agencies to follow
Models of OBPM agencies should adopt	<ul style="list-style-type: none"> - Queensland Government MFO Policy Guidelines - Queensland Government Charter of Social and Fiscal Responsibility - Queensland Audit Office Better Practice Guide: Output Performance Measurement and Reporting 	<ul style="list-style-type: none"> - Basis for funding agencies for services delivered - Description of Government outcomes - Guidance on how agencies are to link inputs and activities to outputs - Accountabilities and responsibilities of agencies with respect to performance? - Assessment criteria to guide status of implementation
Type of costing information required	<ul style="list-style-type: none"> - Queensland Government MFO Policy Guidelines - Queensland Audit Office Better Practice Guide: Output Performance Measurement and Reporting 	<ul style="list-style-type: none"> - Types of cost information are agencies required to provide - The role of output costing - The level of detail in costing information to be calculated
Models of cost management agencies should use	<ul style="list-style-type: none"> - Queensland Government Costing Guidelines - Queensland Audit Office Better Practice Guide: Output Performance Measurement and Reporting 	<ul style="list-style-type: none"> - Recommended method for calculating full output costs - Methods for classifying costs, for identifying cost pools and cost drivers and for assigning cost to cost objects - Guidelines specific for cost management and techniques
Extent MAP is adopted and practiced agency	<ul style="list-style-type: none"> - AGENCY Ministerial Portfolio Statement - Audit Reports - AGENCY Strategic Plan - AGENCY Annual Report - AGENCY Cost Reports 	<ul style="list-style-type: none"> - Strategic direction of the agency - Linking process used for mapping agency outputs to the stated government outcomes - Degree of consistency in communication of expected performance throughout agency - Method for determining how agency's program produced certain outcomes - Types and categories of performance measures used by the agency - Adoption and application of cost management techniques - Methods for identifying cost pools and cost drivers and for assigning cost and allocating overheads - Audit findings in relation to Output Performance Measurement and Reporting - Actions taken by agencies to address potential audit concerns, if any - Process for monitoring and reporting performance - Techniques for assessing efficiency and effectiveness of service delivery

Table 4-2 Documents Analysis

4.1.3 Case Study & Interviews

The research problem, RP-2 examined the level of support given to the proposed MAP by the Queensland Government agency selected for this research. It also examined the extent to which the proposed MAP is adopted and applied by the Queensland Government agency selected for this research. The case study was used to conduct this examination and the case study design incorporated the theoretical principles developed in Chapters 2 and 3 which inform the nature of MAP that should be applied. These are shown in Table 4.3 (which is an adaptation of Table 1.1 in Chapter 1).

The researcher established a protocol for the case study and interviews, which detailed the tasks, instruments and procedures that would guide the collection and analysis of data (Perry, 1998). The protocol specified the rules and procedures to be followed by the researcher and ensured “the search for information is uniform and the data is dealt with in a homogeneous manner” (Nieto & Perez, 2000: p 725). This structured approach provided an action plan for getting from the research problem to the research conclusions and provided a basis for structuring data collection and analysis (Rowley, 2002: p 17).

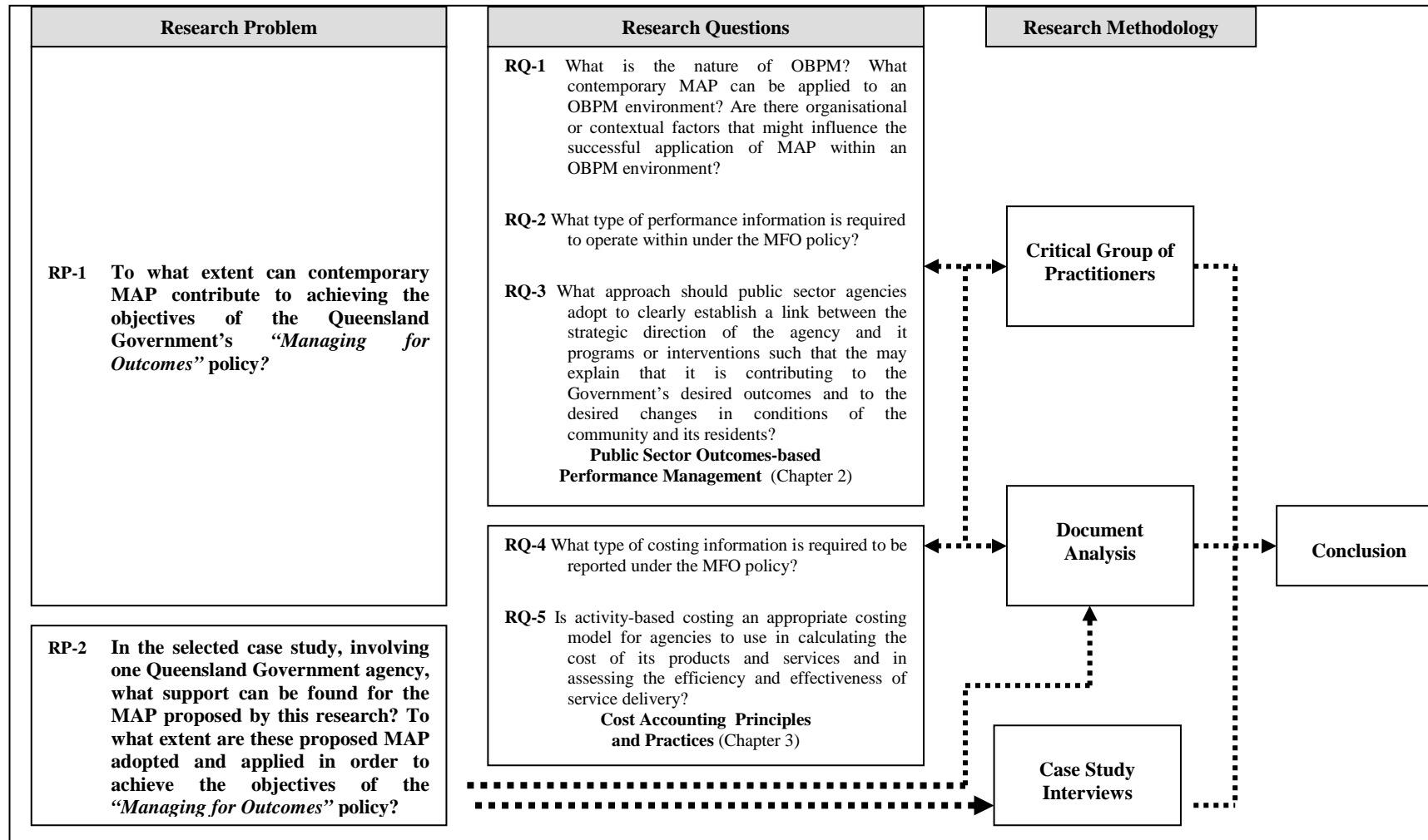


Figure 4-1 Alignment of Research Problem, Research Questions and Theoretical Principles

4.1.3.1 Selection of Case Study and Participants

The research involved one Queensland Government agency (AGENCY) from which selected participants from two work units (BUNIT and CENTRAL) were invited to participate.

AGENCY plays a role in supporting the key Queensland Government outcome of *a community of well-skilled and knowledgeable people*. The output that it delivers aims to boost the social and economic capacity of individuals and communities within the State. AGENCY's network of service delivery centres (SDC), of which BUNIT is one, provides approximately 270,000 clients each year with publicly-funded programs. With a budgeted output cost of approximately \$540 million for the delivery of its services in the financial year 2006-07, AGENCY employs approximately 7,000 employees to assist individuals who may face barriers to social and economical participation in the community.

AGENCY has structured its organisation along the purchaser-provider model⁹. CENTRAL, in the role of purchaser, manages the funding of AGENCY by entering into contracts with both public and private providers that specify the programs that can be delivered, the maximum level of funding that will be paid and the services that these providers are to provide during the contract period. Funding, which is received from both Commonwealth and State sources, is distributed to providers on the basis on an established price structure. The current base rate paid for programs is the same regardless of the delivery mode. The policy intent is to remove delivery mode as a determinant of payment and therefore achieve more flexible and innovative service delivery driven by community demand rather than price. However, prices paid attract location loadings in recognition of price differentials associated with delivering services in regional and remote areas.

CENTRAL negotiates with each of the fifteen SDCs to provide programs in geographical locations that are not well serviced by the private providers. SDCs

⁹ Purchaser-provider model involves the reorganisation of public service activities into different organisations or business units to create the discrete purchasers and providers of services on offer in a quasi market environment. This reorganisation separates the purchasing, policy making and regulatory functions of government agencies from the provision of goods/services producing a clear delineation between the functions of policy development and policy implementation.

operate as semi-autonomous service delivery centres located throughout the State of Queensland. Approximately \$350 million is distributed to the SDCs, of which BUNIT is one, to provide these services.

CENTRAL is also responsible for the monitoring and reporting of operational performance of AGENCY's network of SDCs. In monitoring and reporting on the operational performance of each of the centres, CENTRAL conducts regular performance reviews, in the context of government and policy priorities, with each SDC Director. CENTRAL also reports to the Executive of AGENCY on a monthly basis on the total and individual performance of the centres.

BUNIT, one of the largest SDCs in AGENCY's network, delivers approximately 6.5 million hours of service across six locations and to more than 30,000 clients. Approximately 12% of funds negotiated with SDCs are distributed to BUNIT to deliver approximately 15% of total SDC program hours to clients. With State government funds of approximately \$42 million, BUNIT offers a wide range of client services including programs to assist those with a disability; indigenous programs; and support for clients from non-English speaking backgrounds. BUNIT delivers services to its clients via several modes of delivery, namely, full-time, part-time, on site at one its 6 locations or in the community. In addition BUNIT tailors combinations of these modes of delivery to provide flexibility to suit client needs. Generally, BUNIT receives approximately 75% of its funding from CENTRAL. The remainder of funding is sourced by BUNIT through competitive tendering arrangements for the delivery of some of its programs as well as for self-generated commercial activities.

The researcher selected AGENCY on the basis that it is a large government agency. In selecting BUNIT the researcher considered various characteristics including the size of its client base and the size of its budget allocation from CENTRAL. BUNIT is the largest SDC within AGENCY's network of providers. For practical reasons, BUNIT was also selected for its close geographical location to the researcher. CENTRAL was selected because it is responsible for reporting on performance to AGENCY. CENTRAL possesses particular characteristics of interest to this research. It provides a leadership role to BUNIT for the implementation of MFO. CENTRAL is responsible for setting policy in relation to OBPM for all SDCs within

the agency's structure. CENTRAL issues guidelines to assist BUNIT in implementing MAP.

Individual employees were purposively selected for inclusion in this research to investigate the research questions and to challenge or extend the theoretical principles established for this research. The selection process was guided by the need for "information rich" cases where maximum variation would be achieved (Patton, 1990: p 181). Each individual has differing work requirements depending on the particular work unit within which they are employed. Patterns of responses across all individuals were investigated as well as patterns of responses within each work unit.

Individual employees were purposively selected based on the following considerations:

- Different groupings of people within each work unit have important and distinguishing characteristics, for example, finance personnel, operational managers, and executives. Each of these groups has features that have important implications for the application of MAP. For example, employees who are responsible for managing AGENCY's total budget are less likely to place importance on disaggregated cost information than employees who manage the delivery of programs. The latter group of employees collects detailed performance information for each program.
- Particular individuals within each work unit who have management responsibility with respect to the varying business activities within the agency focus on differing aspects of performance. For example, operational managers want detailed performance and cost information across different dimensions such as client groupings and program offerings.
- Particular individuals within the agency and work units have different experiences with respect to the implementation of the MFO policy. For example, where CENTRAL provides a leadership role within AGENCY for the implementation of the Government's MFO policy, key personnel who manage this responsibility are likely to possess an enhanced understanding of the objectives of MFO. As such particular individuals within the work units have different experiences with respect to the application of MAP for the purposes of

implementing MFO.

The organisational characteristics of selected participants are broad, “providing perspectives from different levels in the corporate hierarchy; from different functional areas, and from different production settings” (Anderson, 1995: p 10-13). With this being the case, however, this research is relevant to a limited number of functional areas within CENTRAL, namely, Performance Monitoring and Reporting Branch, which is responsible for the collation and reporting of performance information, and the Resourcing Branch, which is responsible for managing the distribution of funds to the SDCs. Three participants from these Branches were invited to participate in this research. A broader selection of employees from BUNIT was also invited to participate. Directors and managers from different operational areas of BUNIT, along with employees from corporate and finance sections permitted differing perspectives from across BUNIT’s organisational structure. While the number of participants is small in total, the employees identified for this research were drawn from different functional areas and from different production settings.

The researcher expected to interview approximately 18 employees in the agency with participants being drawn from a cross-section of managers and directors at CENTRAL and BUNIT. However, 6 declined to be interviewed, leaving the total number of participants at 12. The work units, management positions and salary classifications and the number of participants are shown in Table 4.3.

Location	Management Position	Salary CLASSIFICATON	Number of Participants
CENTRAL	Director	SO2-SO1	2
	Manager	A07-A08	1
BUNIT	Director	SO2-SO1	1
	Unit Director	A07-A08	4
	Operations Manager	A07-A08	3
	Manager	A07-A08	1
	Total		

Table 4-3 Demographics of Participants

Additional demographic data, including the various roles undertaken by participants, the number of years of employment both within the Queensland public service (QPS) and within their respective work unit, their level of educational attainment

and the extent to which each of them undertake professional development to support their role, are shown in Appendix C-1.

4.1.3.2 Semi-Structured Interview

Semi-structured interviews were conducted with 12 public sector employees from BUNIT and CENTRAL. Using an interview guide, participants were asked for their opinions on various aspects of MAP, in particular performance measurement and cost management, so as to determine the support or otherwise for the theoretical principles developed in this research.

As part of the process of developing the semi-structured interviews, the researcher established protocols to guide the interview process. The interview guide acknowledges the following issues the interviewer may face (Kennedy, 2006: available at <http://ed-web3.educ.msu.edu/>):

- Interviewees may try to offer whatever they can about the topic, even if it means inventing answers or exaggerating how much they have thought about the question. For the researcher, this means that the “evidence” gathered may not accurately reflect real views. Consequently, the researcher attempted to find ways to pose questions that did not elicit overly helpful responses.
- There may often be a difference between intended MAP and MAP-in-use. This has the potential to be a problem for the researcher. The interviewer’s task was to learn about interviewees’ MAP-in-use even though they may offer their intended ones. To deal with this problem the interviewer asked about concrete examples rather than about general principles. For example, instead of asking interviewees to tell their general philosophy about cost allocation in their agency, the researcher gave them two or three specific examples of cost allocation techniques and asked how the interviewee would respond to each one, and why.
- Interviews are social occasions, and the interviewer cannot avoid the social interaction that occurs during an interview. On one side, the interviewee will want to put his/her best foot forward. He or she will want to be perceived as thoughtful, reasonable or justified. Even if the interviewee is willing to discuss sensitive areas, there is a tendency to put them in the best light possible. On the

other side, the interviewer conveys a social message to the interviewee by way of mannerisms. Such mannerisms often convey the interviewer's attitude towards certain topics. As such the interviewee will try to tailor what they say to be more acceptable to the person they see as their audience.

The potential for the above issues to surface during the interview process is further complicated by the fact that the researcher is an insider. As such there is the real possibility that interviewees would want to present themselves, and the agency, in a positive light. In addition, as an employee of a central agency, the researcher faces the risk of conveying approval or disapproval, by way of her mannerisms, of what the interviewee reports. There is also the risk that the researcher may assume too much and so not probe as much as if they were outsiders or ignorant of the situation (Brannick & Coghlan, 2007: 69). The researcher, therefore, enlisted the services of an independent interviewer wherever possible (for investigator triangulation) with the aim to limit possible insider researcher bias.

The independent interviewer is employed in a manager's position within one of the largest Queensland Government agencies. Her employment involves providing advice across the agency on matters including developing strategic plans, and compiling the MPS. She also provides internal consultancy services to other sections of the agency who seek assistance in developing and/or improving their performance reporting. Prior to this role, the researcher and the independent interviewer worked together for several years developing performance measurement systems. The independent interviewer has also worked in the private sector on matters largely related to corporate performance and corporate strategic planning. Consequently the researcher has significant level of trust in the ability of the independent interviewer to understand the concepts examined by this research and to elicit appropriate responses from participants. Her skill would enable her to know when and how to probe interviewees for further information.

Prior to commencing the interviews, a letter was sent to the Chief Executive Officer (CEO) of AGENCY inviting the agency to participate in this research. On receiving authorisation, letters were then sent to staff whose designated role within their work unit corresponded to the pre-selected organisational characteristics eliciting their participation. All participants were given assurances that no names or identifying

information would be attached to or included in their responses and that the interview transcripts would not be made available to others. Participants were requested to sign a consent form indicating their willingness to participate. Copies of letters of invitation are shown in Appendix A-1, while a copy of the consent form is shown in Appendix A-2.

After the preliminaries, where the researcher or the independent interviewer introduced themselves and described her background and the research study, the interviewees were given an interview sheet, which contained information about the topics covered by the research. Initial background questions were posed in the interview relating to demographic data such as position, work unit, number of years experience in the work unit and the agency, professional background and experience.

The interview was designed to seek elaborated responses from interviewees. Although the interviews include semi-structured questions, probe questions were used to ensure that the issues and concerns identified in the prior theory is covered in the interviewees' perceptions. Probes were used to deepen the response to a question, increase the richness of the data being obtained, and give cues to the informant about the level of response desired (Patton, 1987). Probe questions were prepared in case the interviewee does not raise them in their initial descriptions and start with "*How.....?*" to ensure that an answer of "yes" or "no" could not be provided. Words used by the interviewee were used to phrase the probe questions to ensure understanding by the interviewee. These probe questions formed a major part of the interview protocol and were used to provide a reliable framework for cross-analysis of data (Yin, 1994). Probe questions were framed according to the theoretical principles established. Because interviewees were likely to be at different levels of understanding of the topic investigated, probes also greatly assisted the interviewer in tailoring the conversation according to the interviewee's "topic maturity" and clarifying the meaning of the terms unique to the research topic. They were customised to draw out what the interviewee might know and were posed with non-directional wording that described rather than quantified to avoiding forcing responses (Creswell, 1998). Through the use of probes, the interviewer also communicated interest in the interviewee's comments, which built trust and led to

more complete answers (Glaser, 1978; Patton, 1987; Carlson & McCaslin, 2003). Additionally, the interviewer made annotations in the interview data sheet to capture the interviewee’s nonverbal responses (Carlson & McCaslin, 2003).

The full copy of the interview guide is found in Appendix B-2 and is divided into several sections representing self-contained themes. The major themes covered in the interviews are shown in Table 4.4

Part 1 - Performance Measurement
<p>Do you use performance data to evaluate the performance of your agency? What types of performance measures do you use to evaluate the performance of your Agency and Work Unit?</p> <p>Do you collect performance information about the following? Explain what these measures tell you with respects to the performance of your area? What are the most important and relevant measures that you use?</p> <p>How would you define the major outcomes that your work unit is contributing toward?</p> <p>Has the AGENCY and your work unit established clear strategic objectives through planning processes that clearly describe how it will contribute to these major outcomes and what outputs (products or services) that it will deliver to achieve the desired performance levels? Does your Institute use some other form of hierarchy of measures that somehow are logically linked? If so, how do you go about categorising these? Some people think it is important to develop a “chain of results” for developing performance measures. What do you think about that?</p> <p>Are there times when you need to search for additional information or drill down further to explain the information provided to you through the reporting of these measures?</p> <p>How well do you rely on the formation? Do you believe that the information you receive from these measures is sufficiently correct How confident are you that the performance measures reported in this report reflects the true performance of your area?</p> <p>Is the data easily available to you on a regular basis?</p> <p>How do you access these reports? Do you get performance measurement information on a timely basis?</p> <p>How has performance measurement information impacted on your work area?</p> <p>Explain how you think the use of these performance measures improves the quality of management decisions that you need to make?</p>
Part 2 – Cost Management
<p>Do you use costing data to evaluate the performance of your agency?</p> <p>What kind of objects does your agency cost?</p> <p>Does your agency systematically report on costs attributed to outputs? Activities? Client group? Geographic region? Other? What do you consider the most important and least important cost object for your purposes? What do you consider more important? Managing your budget allocation or monitoring the costs of your deliverables? Line item expenditure items or costs of objects? Which do you use more often? Why? How is data collected on these different dimensions?</p> <p>How does your agency distribute costs to the products services or outputs that you are interested in? Explain the process.</p> <p>Can you identify particular strengths in the way your agency allocates indirect costs? What about weaknesses?</p> <p>How confident are you that the costs reported are a reflection of the true costs? Why?</p> <p>With respects to the reports that we are looking at, what sort of meaning do you get from them?</p> <p>Is the costing data easily available to you on a regular basis? How well do you rely on the cost information?</p> <p>How are managers held accountable for performance against cost targets?</p>

What do you consider to be the major impacts of these techniques on your role within this agency?

Explain how you might evaluate the efficiency and effectiveness of service delivery in your area, including the extent, quality and benefit of services delivered as well as the cost of delivery?

How has the use of performance and costing information aided your decision-making effectiveness?

Are you held more accountable for blow-outs in budget or blow-out in costs of service delivery?

Why do you think this is the case?

Table 4-4 Summary of Questions contained in Interview Guide

Each section contains a series of general questions and possible probes to be used in exploring the theme. The guide did not require the questions to be addressed in a particular order. The pre-specification of questions and probes on each theme assisted in maintaining a non-directive stance, even if used in a different order from that indicated in the guide.

All interviews were audio taped (Spradley, 1980) and verbatim records of each interview will be created, which provided a sound basis for later coding and analysis. The researcher checked each of the transcripts for errors and inconsistencies.

4.1.3.3 Interview Data Analysis and Interpretation

The analysis of data is potentially subject to bias as it relies on interpretations and classifications designed by the researcher and the independent interviewer. A systematic approach to data analysis is employed in this research to limit the potential of such bias (Miles & Huberman, 1994; Lillis, 1999). Ideas and concepts which emerged from the theoretical principles developed in Chapters 2 and 3 are better understood using a thematic analysis, which focuses on identifiable themes and patterns of behaviour (Aronson, 1994) and which aim to search for key themes and patterns (Easterby-Smith, Thorpe & Lowe, 1991).

The steps to be employed for analysis of data are discussed below (Lillis, 1999; Kuehn & Witzel, 2000). Transcripts were coded using the qualitative analysis package Ethnograph, v5.08.

1. Firstly, the researcher classified themes in a hierarchical index system that can best be described as “containers” (Richards & Richards, 1995: p 83). The thematic arrangements were determined by the research questions and the

theoretical principles developed in Chapters 2 and 3. They were designed to highlight the patterns of responses across the participants around the conceptual themes. Initial themes were established, prior to interviews being conducted, with reference to theory, input from the group of critical practitioners, and the interview guide. Additional branches of the hierarchy of themes were added after an initial analysis of some interviews. “One method of creating codes is that of creating a provisional ‘starting list’ for codes prior to the fieldwork. That list comes from the conceptual framework, list of research questions, hypotheses, problem areas, and/or key variables that the researcher brings to the study” (Miles & Huberman, 1994: p 58). The initial hierarchical index system is divided into two main branches as shown in Table 4.5.

<p>PM-TECHNIQUES</p> <ul style="list-style-type: none"> PM-Confidence PM-Chain-of-Results Link-to-Goals PM-Types <ul style="list-style-type: none"> Choice Of Measures Important Measures Preferred Measures PM-Use-of-Information <ul style="list-style-type: none"> PM-Believability PM-Integrity PM-Relevance PM-Scope PM-Reliance PM-Understand PM-Access PM-Timeliness PM-Currency PM-Impact <ul style="list-style-type: none"> PM-Target PM-Reporting PM-DecisionEffect MAP-IMPACT <ul style="list-style-type: none"> MAP-Evaluation MAP-DecisionEffect MAP-Accountability 	<p>CM-TECHNIQUES</p> <ul style="list-style-type: none"> CM-Access To Costs CM-Other Information Line-Items Timeliness-of-Cost CM-Link-to-Goals Cost-Allocations <ul style="list-style-type: none"> CM-Allocation-Method Indirect-Costs Cost-Objects <ul style="list-style-type: none"> Cost-Dimensions Cost Object-Types Important-Cost Object CONFIDENCE-IN-COSTS <ul style="list-style-type: none"> Cost-Accuracy Cost-Reliability Reliance-on-Cost Timeliness-of-Cost Cost Impact <ul style="list-style-type: none"> Negative Opinion Positive Opinion
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Table 4-5 Initial Thematic Concepts for Data Analysis

This collection of different containers put in order according to thematic aspects assists in the evaluation and theorising since it enables the researcher to have an immediate access to a container’s text passages and to combine them with text passages from other containers (Miles & Huberman, 1994: p 57).

Realising that the responses from participants may have no meaning unless they are attached to a question, the researcher also created a hierarchical index according to questions posed to the interviewees. Consequently, a dual index system is maintained.

- Each interview transcript is assigned a numerical code from 1 to 12. A text line in a transcript forms the smallest possible coding unit. Each sentence in the raw transcripts is coded using sequential line numbering, for example:

Interview 6			
Q 4 What are the most important and relevant measures that you use?	Int~6	180	
Q 4.1 Why are these important to you?	Int~6	181	
The most relevant ones are the financial	Int~6	187	
outputs and the cch outputs	Int~6	188	
That’s what the department judges our performance on.	Int~6	189	

Line numbers (i.e. 180, 189) enables the researcher to quickly locate and track interview information within the original interview.

- The researcher separately reads all of the transcripts several times and codes the text lines according to the established themes in the index system. Each sentence in the transcript is matched with one or more themes identified in a hierarchical coding structure, for example:

Interview 6			
-# - PM-TYPE			
Q 4 What are the most important and relevant measures that you use?	Int~6	180	-#
Q 4.1 Why are these important to you?	Int~6	181	
The most relevant ones are the financial	Int~6	187	
outputs and the cch outputs	Int~6	188	-#
That’s what the department judges our performance on.	Int~6	189	

In coding the section of text in the above example, the researcher marks the lines from 180 to 189 and gives it the code, PM-TYPE (which is defined as “Type of Performance Measure”).

The researcher also marks the lines from 187 to 188 and gives it the code, QUEST-4, to indicate that the response relates to Question 4 in the interview guide.

Interview 6			
-# - PM-TYPE #-QUEST-4			
Q 4 What are the most important and relevant measures that you use?	Int~6	180	-#
Q 4.1 Why are these important to you?	Int~6	181	
The most relevant ones are the financial	Int~6	187	-#
outputs and the cch outputs	Int~6	188	-#
That’s what the department judges our performance on.	Int~6	189	-#

- The Ethnograph database is then searched by code to select data relating to particular themes. The researcher refers quickly to the database to see what actually occurred through the interviews. An example of combined text is shown below in Figure 4.1 where the researcher searched for responses to a question relating to their level of confidence in performance measurement within their unit.

```

Combined Search Results Search Code PM-CONFID

=====
Lines 153 to 155 of File Int~1
=====

Because I mean some of the line items in our reports are
  pretty pathetic. I mean what does that actually mean?

=====
Lines 232 to 273 of File Int~3
=====

Not!

One of the issues that we have is that a lot of our
  reports come out a system
Unfortunately, we get sometimes conflicting information

=====
Lines 446 to 450 of File Int~5
=====

Come on! I've covered that one! Not!

. . . . .

It's not an easy job... for any of us!

```

Figure 4-2 Example of Combined Search Results

Retrieval of the catalogued and labelled concepts permits patterns to be seen, and analytical explanations become clearer as to whether support or otherwise for the principles of the research are evident (Rowley, 2002). The data retrieved for the agency is analysed across all participants within each work unit.

Demographic data from each interviewee was collected and coded according to the following categories: division, role, classification level, length of time employed in the Queensland Public Service; length of time employed in the Agency; length of time employed in the current role; education attainment; whether an accounting qualification was held and if so what type of qualification; whether professional development was undertaken and the type and frequency of professional development activities; and whether professional development activities in cost management and performance measurement had been undertaken.

Such a systematic approach provided an audit trail from transcripts to the results of analysis through successive stages of summarisation and data reduction; ensured that all interviews are used in the evaluation of support for the theoretical principles; and provided an analytical framework within which not only would principles be tested,

but also which allowed the emergence of new ideas “grounded in empirical data” (Lillis, 1999: p 88).

In analysing and reporting the findings of the case study, the researcher relied on descriptive data to offer explanations and draw conclusions from the investigation (Patton, 1990: p 423). The fair representation of the data and communication of what the data reveals, given the purpose of the research, involved the critical reflection on the pattern of interrelationships the researcher perceives (Ahrens & Dent, 1998: p 10).

4.2 Evidence Sought

In relation to RP-1, this research sought evidence that demonstrates whether there is support for the theoretical principles developed in Chapters 2 and 3 of this research. Evidence was gained through discussions with the critical group of practitioners (CGP), document analysis (DA) and the case study interviews (CSI) from participants at the Queensland Government agency selected for investigation. In relation to RP-2, evidence was collected through document analysis and the case study interviews and determines the extent to which the MAP proposed in this research are adopted and applied by the case study agency in order to achieve the objectives of the MFO policy. A summary of the evidence sought and the sources from which evidence will be sourced in shown in Tables 4.6 and 4.7.

Triangulation in this research, which combines several research methodologies to study the same phenomenon (Denzin, 1978) is achieved through the crosschecking of data using multiple data sources (data triangulation); using more than one method of data collection (method triangulation); and using two interviewers to conduct the interviews (investigator triangulation).

Data triangulation strengthens the research findings by using multiple ways to collect and analyse data. Investigator triangulation is achieved through the use of more than one interviewer in the case study interviews and permits a comparison of the different interviewers’ influences on the issue and the results of the research. This enhanced reliability. Methodological triangulation involves the use of case study interviews to study the issue. The researcher determines that if the conclusions

from each of these methods are the same, then validity is established. The emphasis in the data, investigator and methodological triangulation is clearly on confirming the data and knowledge about the research situation and on enhancing the trustworthiness of the data.

RP-1 To what extent can contemporary MAP contribute to achieving the objectives of the Queensland Government's "Managing for Outcomes" policy?				
Theoretical Principles	Evidence Sought	CGP	DA	CSI
Public sector agencies should develop change maps and logic models that link resources, activities, and outputs to a chain of outcomes so that the agencies may demonstrate how they contribute to the achievement of the Government's desired outcomes. This will enable them to meet the objectives of the MFO policy.	<ul style="list-style-type: none"> - The legislative nature of MFO policy - Key principles of MFO policy - Definition and purpose of MFO policy - Implications of MFO for agencies - The guidance provided to agencies in undertaking OBPM including strategic planning, performance measurement and costing - Basis for funding agencies for services delivered - Description of Government outcomes - Guidance on how agencies are to link inputs and activities to outputs - Accountabilities and responsibilities of agencies with respect to performance? 	✓	✓	✓
Public sector agencies should measure performance by developing measures suitable for communicating their contribution to the Government's desired outcomes and suitable for assessing the success of activities and outputs in contributing toward these desired outcomes	<ul style="list-style-type: none"> - Types of performance information required - How performance is to be measured. - Guidelines for agencies to follow 	✓	✓	✓
Public sector agencies are able to determine the cost of service delivery when they apply the following techniques: <ul style="list-style-type: none"> ▪ use of methods to assign direct costs to cost objects; ▪ identification of cost pools and cost drivers for the allocation of indirect costs to different cost objects, including outputs and activities; ▪ employment of contemporary costing methodologies, such as ABC, to improve the accuracy of cost information 	<ul style="list-style-type: none"> - Types of cost information are agencies required to provide - The role of output costing - The level of detail in costing information to be calculated - Recommended method for calculating full output costs - Methods for classifying costs, for identifying cost pools and cost drivers and for assigning cost to cost objects - Guidelines specific for cost management and techniques 	✓	✓	✓
Public sector agencies are able to choose amongst alternative courses of action in terms of their costs when they employ techniques associated with measuring cost efficiency and cost effectiveness	<ul style="list-style-type: none"> - Techniques for assessing efficiency and effectiveness of service delivery 	✓	✓	✓

Table 4-6 Methodology & Evidence Sought (RP-1)

RP-2 In the selected case study, involving one Queensland Government agency, what support can be found for the MAP proposed by this research? To what extent are these proposed MAP adopted and applied in order to achieve the objectives of the “Managing for Outcomes” policy?				
Theoretical Principles	Evidence Sought	CGP	DA	CSI
OBPM & Performance Measurement	<ul style="list-style-type: none"> - Strategic direction of the agency - Linking process used for mapping agency outputs to the stated government outcomes - Degree of consistency in communication of expected performance throughout agency - Method for determining how agency’s program produced certain outcomes - Types and categories of performance measures used by the agency 		✓	✓
Cost Accounting	<ul style="list-style-type: none"> - Adoption and application of cost management techniques - Methods for identifying cost pools and cost drivers and for assigning cost and allocating overheads - Audit findings in relation to Output Performance Measurement and Reporting - Actions taken by agencies to address potential audit concerns, if any - Process for monitoring and reporting performance 		✓	✓

Table 4-7 Methodology & Evidence Sought (RP-2)

4.3 Limitations of the Methodology

Difficulties associated with adopting case study research were considered. Firstly, it was necessary to control for the reactive effects of the researcher/interviewers presence or activities on the phenomena being observed. This limitation is particularly relevant since the researcher is an employee of the Queensland public sector and is known to many employees within AGENCY. The risk which was the possibility of distorting effects of selective perception and interpretation on the researcher’s part (McCall & Simmons, 1969: p 78) was minimised through employing the services of an independent person to conduct the interviews. The suitability, experience, and skills of the independent interviewer were discussed earlier in this Chapter.

Secondly, limitations of this research also centre on the time-limited nature of the research opportunity. Because of time constraints, this research adopted a cross-sectional methodology rather than a longitudinal method. A longitudinal method may have been more appropriate in this public sector environment where agencies are largely in the implementation phase of OBPM.

Thirdly, machinery of government changes result in the regular deployment of senior staff from one agency to another. During the time period in which this research was conducted, AGENCY was headed by three different Chief Executive Officers.

Only one agency was selected for the case study. The number of participants was small. This means that the results cannot be generalised across the Queensland Government agencies. Further studies are required to determine the extent to which the findings from this research may be found across other government agencies.

4.4 Conclusion

This chapter examined the nature and limitations of the mixed-method research methodology and the types of research questions suitable for applying this method. This chapter also provided a description of various methods, namely briefings, consultations and feedback with a critical group of practitioners, document analysis, and case study including interviews to be performed. This chapter also described how the agency, work units and participants were selected. Details on the data collection methods were also described, as were the means for analysing, interpreting and presenting the results.

Participants for this case study interviews were purposively selected. The findings from the study were analytic with respect to the theory that emerged from the literature review and the theoretical principles developed in Chapters 2 and 3. The collection of data was from multiple forms including documentation, and semi-structured interviews. The results of the data analysis are presented in Chapter 5 and 6.

CHAPTER 5 DATA ANALYSIS AND DISCUSSION - PRINCIPLES AND METHODS OF OBPM

5.0 Introduction

This research investigates the application of MAP for achieving public sector OBPM in Queensland under its MFO policy. The previous chapter discussed the methods used to investigate the extent to which there is support for the theoretical principles developed in Chapters 2 and 3, as well as the extent to which the proposed MAP is adopted and practiced by the Queensland Government agency selected for this research. It explained the components of the mixed-method approach to this research, including the research questions that guided the data collection activities.

This chapter presents the results of a detailed analysis of data collected in the investigation process. Findings are drawn and implications of these results are examined. In particular, this chapter focuses on the analysis of data collected to investigate:

- RP-1 and the extent to which there is support for the theoretical principles developed in Chapter 2 (that is, PM-1 and PM-2); and
- RP-2 and the extent to which the proposed methods and principles of OBPM are adopted and practiced by the Queensland Government agency selected for this research.

The research problems, RP-1 and RP-2, are presented in Table 5-1. The theoretical principles developed in Chapter 2, PM-1 and PM-2, are presented in Table 5-2.

RP-1	RP-2
To what extent can contemporary MAP contribute to achieving the objectives of the Queensland Government's " <i>Managing for Outcomes</i> " policy?	In the selected case study, involving one Queensland Government agency, what support can be found for the MAP proposed by this research? To what extent are these proposed MAP adopted and applied in order to achieve the objectives of the " <i>Managing for Outcomes</i> " policy?

Table 5-1 Research Problems developed for this research

As discussed in Chapter 4, this research adopts a mixed-method approach to investigate the research problems including the research questions that guide the

data collection activities. A combination of briefings, consultations and feedback with a critical group of practitioners, document analysis, and case study interviews was used and generated qualitative data that contributed to a triangulated analysis.

The critical group of practitioners was used to provide constructive feedback relating to the theoretical principles developed in Chapters 2. Documentation relating to policy statements, guidelines, legislation, information bulletins and seminars, audit reports, AGENCY planning documents, AGENCY MPS, and AGENCY annual reports were analysed for the purposes of gaining knowledge of the Queensland Government's MFO policy, the intended-OBPM and the OBPM-in-use at the agency selected for this research.

The case study and interviews also provided evidence as to the support or otherwise within the Queensland public sector for the theoretical principles developed in Chapters 2. In particular, they were employed to investigate the extent to which the proposed model of OBPM, including techniques for performance measurement, is adopted and applied by the Queensland Government agency selected for this research. The case study and interviews involved one Queensland Government agency (AGENCY), from which selected participants from two work units (BUNIT and CENTRAL) were invited to participate.

5.1 Principles and Methods of OBPM

The theoretical principles developed in Chapter 2 are presented in Table 5-2.

RESEARCH QUESTIONS	THEORETICAL PRINCIPLES
<p>RQ-1 What contemporary MAP can be applied to an OBPM environment?</p> <p>RQ-2 Under the MFO policy, what type of outcomes-based performance information should be reported by public sector agencies?</p> <p>RQ-3 What approach should public sector agencies adopt to establish linkages between its strategic direction and its programs or interventions so that the agency may explain its contribution to desired changes in conditions of the community and its residents and ultimately to the Government's desired outcomes?</p>	<p>Public Sector Outcomes-Based Performance Management (Chapter 2)</p> <p>PM-1 Public sector agencies should develop change maps and logic models that link resources, activities, and outputs to a chain of outcomes so that the agencies may demonstrate how they contribute to the achievement of the Government's desired outcomes. This will enable them to meet the objectives of the MFO policy.</p> <p>PM-2: Public sector agencies should measure performance by developing measures suitable for communicating their contribution to the Government's desired outcomes and suitable for assessing the success of activities and outputs in contributing toward these desired outcomes.</p>

Table 5-2 Theoretical Principles: OBPM and Performance Measurement Practices

If PM-1 is supported then the researcher would expect to find evidence relating to the following:

- The legislative nature of MFO policy;
- The key principles of MFO policy, including its definition and purpose;
- The implications of MFO for agencies;
- The guidance provided by the Queensland Government's central agencies to line agencies in undertaking OBPM including strategic planning, and performance measurement;
- The guidance by the Queensland Government central agencies to line agencies on how agencies are to link inputs and activities to outputs and ultimately to Government outcomes;
- A description of Government outcomes; and
- The accountabilities and responsibilities of agencies with respect to performance.

In particular, the researcher would expect to find evidence for the use of program theory including techniques such as change maps and logic models in describing the performance objectives of AGENCY and how its products and services contribute toward the achievement of the Government's desired outcomes.

For PM-2 to be supported the researcher would expect find evidence within AGENCY of the following:

- The scope of performance information requiring collection by AGENCY through its work units, BUNIT and CENTRAL;
- How AGENCY measures performance in terms of the types and categories of performance measures; and
- The guidelines established by the Queensland Government and by AGENCY for its work units to follow in developing performance measurement.

In particular, the researcher would expect to find evidence for the use of multiple types and categories of performance measures that are suitable for measuring the success of activities and outputs in achieving desired outcomes. The types of performance measures expected relate to outputs, activities and resources; while outcome indicators and measures of effect should be used to report progressive achievement of desired outcomes. Categories of measures should include quantity, quality, and cost.

5.2 Evidence in Support of Theoretical Principles

Briefings, consultations and feedback with a critical group of practitioners as well as an analysis of documentation from central agencies was undertaken to determine whether there is support for the theoretical principles, PM-1 and PM-2. Documentation analysed included policy statements, guidelines, legislation, information bulletin and seminars relating to the model of OBPM adopted by the Queensland Government, including specifications for the development and reporting of performance measures.

5.2.1 Evidence in Support of Theoretical Principle PM-1

Analysis of documentation produced by central agencies indicates, in the first place, that the Queensland Government's MFO policy is predicated on the principle that where government agencies relate their outputs to Government outcomes, and subsequently their inputs to outputs, decision makers may test the alignment of government services and resources with desired outcomes. "Through measuring

success in achieving outcomes, determinations can be made regarding the appropriate mix of outputs in delivering the desired results” (Queensland Treasury, 1998: p 12).

The outcomes that the Queensland Government wants to achieve are identified through strategic planning processes, at both the whole-of-Government and agency level. These outcomes provide the basis for deciding on those outputs (that is, agencies’ products and services) that will be funded through the State’s budget process. The key principle underpinning the MFO policy is that agency outputs will be funded in the budget process to the extent that they efficiently and effectively achieve the Government’s outcomes. It is through reporting and monitoring output performance that the efficiency and effectiveness of an agency’s service delivery may be determined. Efficiency and effectiveness of service delivery includes aspects of performance such as the quantity of services delivered, the quality or standard of the service provided and cost. These aspects of performance enable the Government to assess whether an agency’s outputs are appropriately directed towards achievement of the government outcomes (Queensland Treasury, 2002b).

The MFO principles are encapsulated in legislation, including the FAAA and the Public Service Act (1996), and in key Government policy documents, including the MFO Policy Guidelines (1998), the Queensland Accountability Framework (2004), and Strategic Planning Guidelines (2004).

The theoretical principle, PM-1, relates to the way in which an agency describes its expected performance. Evidence collected in this research determines whether there is support for the application of program theory through the use of techniques such as change maps and logic models to describe performance expectations. Examination of documents relating to the implementation of MFO indicates clearly the need for agencies to map outputs to outcomes (Queensland Treasury, 2003). Policy documents highlight that while it is recognised that the process of linking of outputs to outcomes is challenging, the cause and effect between an output or action and its ultimate impact or outcome is difficult to track without a clear mapping process (p 1). While these key policy documents do not provide step-by-step procedures for undertaking this mapping process, recommendations specify a “need to illustrate how the hierarchical arrangement of indicators provides evidence of the

impact of outputs on outcomes, and also the extent to which outputs are being delivered efficiently and effectively” (Queensland Treasury, 2003: p 1 - 2).

For instance, guidance is provided to agencies through the distribution of information bulletins. Information bulletins distributed by Queensland Treasury Department provide a worked example, as shown in Figure 5-1, for agencies to follow in applying the government’s OBPM framework.

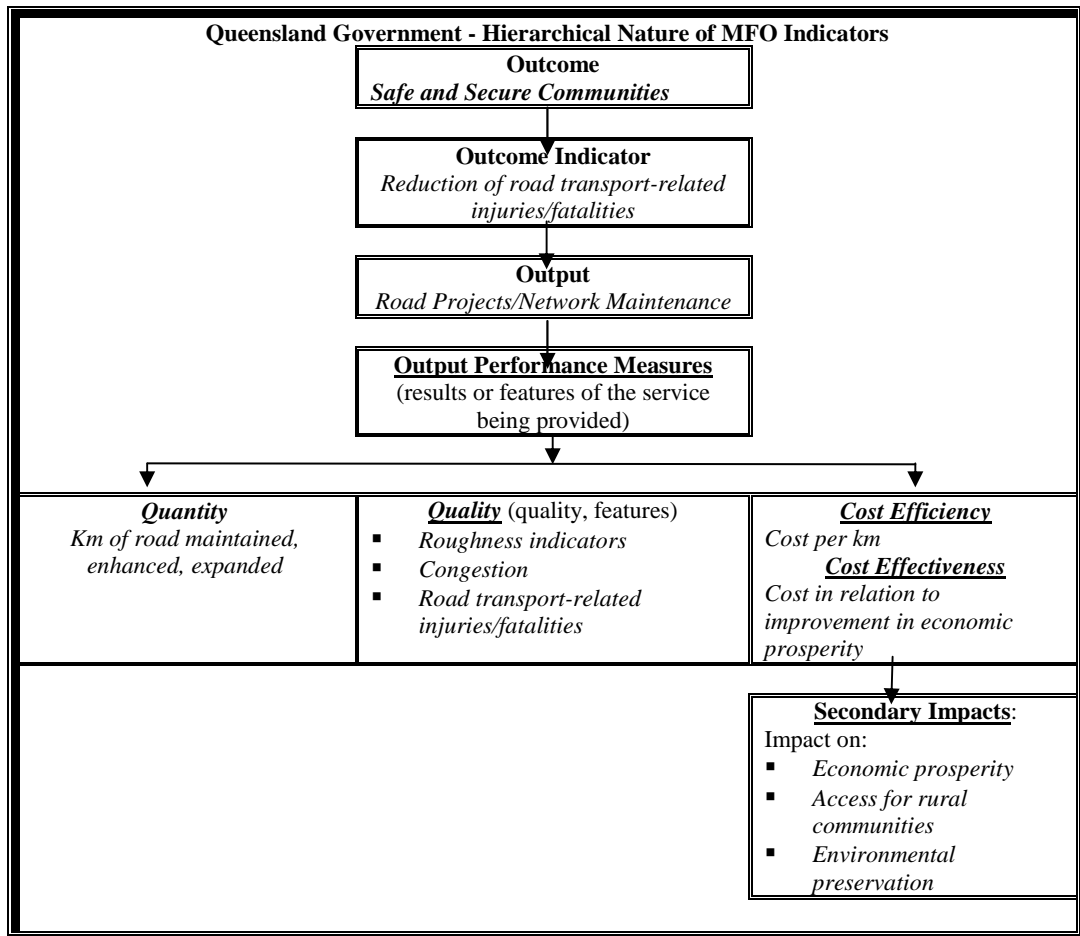
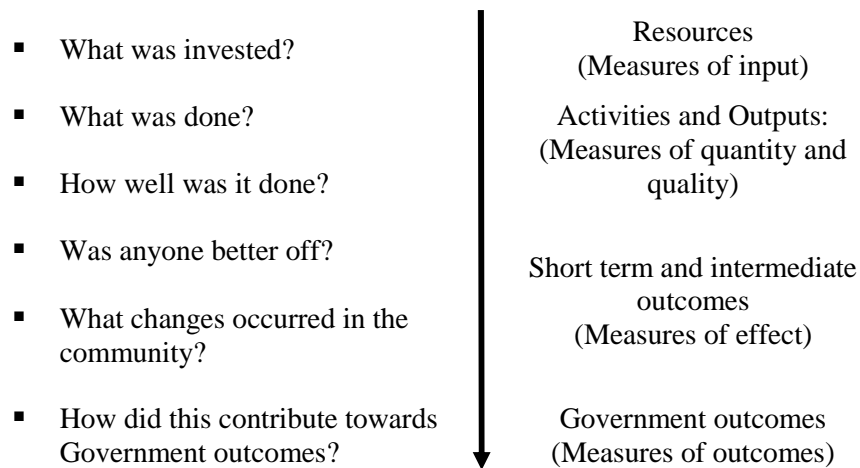


Figure 5-1 Queensland Government - Hierarchical Nature of MFO Indicators
(Source: Adapted from Queensland Treasury, 2002a)

While Figure 5-1 shows the hierarchical nature of the MFO indicators, the linking process between Government outcomes and agency outputs obviously does not illustrate how the delivery of agencies’ outputs will lead to, over time, the achievement of outcomes. As proposed in Chapter 2 this linkage should describe a series of expected changes in behaviour, attitudes or skills of agencies’ client groups over time. Without the use of an enhanced linking process, as proposed in Chapter 2, significant gaps in performance information can be expected.

While documentation published by the central agency does not illustrate the use of an enhanced linking process, guidance for this is found in seminar papers from information sessions conducted by Queensland Treasury. For example, the advice provided at these sessions is to link agency outputs to the results expected from the delivery of these outputs and then ultimately to Government outcomes. This implies the use of techniques such as change maps. Agencies are advised to describe their performance in terms of the following questions:



(Source: www.treasury.qld.gov.au/office/knowledge/docs/state-gov/Seminars/).

These questions are logically linked and are consistent with the theoretical principle, PM-1 developed in this research.

Briefings, consultations and feedback with the critical group of practitioners also resulted in support for the theoretical principle, PM-1 with several members providing the following comments.

Member 1: *Your model/approach makes total sense.*

Member 2: *Two of my colleagues attended your session today and came back to the office quite excited about what you had to say about performance indicators.*

Member 3: *These discussions provided some reinforcement of where the Government has been leading our performance agenda to improve our service delivery processes and outcomes for the community.*

Member 4: *I was very impressed with the simple yet forthright approach to Performance Management.*

Member 5: *People have been phoning, visiting and pulling me up in the hallways to say they really appreciated the sessions and what a wonderful insight it gave them to something that had largely been a mystery to them until now. I believe there is now a momentum developing in the Queensland public sector to progress this approach to performance management. This is a huge achievement.*

Members of this group agreed that the theoretical principle, PM-1, describes well the conceptual framework underpinning the MFO policy. Support for this principle is given because it clearly enables agencies to determine why their program produced certain outcomes or why the Government outcomes were not achieved. Members of the critical group of practitioners displayed a genuine interest in the public sector moving beyond the provision of services to the development of programs that target specific outcomes that benefit the community.

5.2.2 Evidence in Support of Theoretical Principle PM-2

Analysis of documentation published by central agencies indicates specifications for the development of performance measures by government agencies: “Performance targets will be specified for each output in terms of quality, quantity, timeliness, cost and location (where appropriate)” (Queensland Treasury, 1998: p 1). With respect to the specification of outcome indicators, the documentation recognises that since accountability for outcomes would be shared amongst several agencies, outcome indicator information is to be coordinated by central agencies to enable analysis of outcome trends over time. These indicators are published annually by the Government in its *Priorities in Progress Report*. Agencies, however, are responsible reporting on the efficiency and effectiveness with which they deliver their particular outputs. This responsibility is encapsulated in Section 21(2) of the *Financial Management Standard 1997* which requires an agency to report on performance achievement, including details about output performance measures. These requirements suggest that outcomes along with outcome indicators are reserved for

reporting at a whole-of-Government level, while outputs and output indicators are reported in agencies' annual budget documents.

While there is no requirement for agencies to report on the achievement of outcomes they are required to identify the Government outcomes towards which they contribute and monitor and report on their outputs, including the agreed output performance targets, to the Cabinet Budget Review Committee (CBRC). This information along with agencies' progress in delivering the agreed output performance targets are published in annual Budget Papers. A template, as shown in Figure 5-2, is provided for agencies to use in specifying their performance targets.

DEPARTMENT OF			
Output Statement			
Output (Title):			
Description:			
Output class (where applicable):			
Outcome:			
Supporting Outcome:			
Measures:	1998-99 Targets	1998-99 Est. Actual	1999-2000 Targets
Quantity:			
Quality:			
Timeliness:			
Location:			
Cost:			
TOTAL COST (\$'000)			

Figure 5-2 Template for specifying agency outputs (Source: Queensland Treasury, 1998)

Figure 5-2 shows the types and categories of performance measures that agencies must report: the type of performance measure is limited to outputs, while the categories relate to the quality, quantity, timeliness, location, and cost.

While documentation published by central agencies is relatively silent on the specification of performance measures relating to activities, it does however recommend the internal disaggregation of outputs into lower level components such

as sub-outputs, activities or projects so as to improve the internal management of the agency. There is no legislative requirement for agencies to report on these lower level components. However, operational planning guidelines published by Queensland Treasury do specify that an agency's operational plan should outline "how the work area will measure its contribution to the achievement of the agency's output performance measures for the next 12 months" (Queensland Treasury, <http://www.treasury.qld.gov.au/office/knowledge/docs/>).

QAO (2006: p 6), in publishing its *Better Practice Checklist: Output Performance Measurement Framework*, suggests that agencies should ensure that there are linkages between MPS output performance reporting and its internal management reporting: agencies should integrate their performance information with their internal management processes and accountabilities. Furthermore, the QAO suggests that agencies, in improving output performance information reported ideally should enhance the linkage between output performance information in an agency's MPS and the information contained in its Annual Report (p 11).

It is clear from the analysis of documentation published by central agencies that their primary focus is on ensuring agencies develop performance measures in order to meet the legislative requirements associated with the State's budgeting process and the central reporting on progress in achieving Government outcomes. With this being said, recommendations are provided to agencies to develop appropriate measures that enable the internal management of their operations. A greater focus on the development of a broader range of performance measures has been emphasised by the QAO (2006: p 6) which calls for a greater linkage between the legislatively required measures with measures necessary for internal management.

Consequently, analysis of documentation provides support for theoretical principle, PM-2. Queensland Government agencies should measure performance by developing measures suitable for communicating their contribution to the Government's desired outcomes and suitable for assessing the success of activities and outputs in contributing toward these desired outcomes.

5.3 Evidence of Extent of Adoption of Proposed OBPM

To seek evidence of the extent to which AGENCY adopts and applies the proposed model of OBPM, the researcher applied the following mixed-method approach:

- Analysis of AGENCY documentation; and
- Interviews with case study participants from two work units, BUNIT and CENTRAL.

AGENCY documents analysed included the Strategic Plan, the Annual Report and the MPS. The analysis was done to assist in determining the degree to which:

- the “performance story” (McLaughlin & Jordan, 1999) is consistently communicated throughout all documents of AGENCY; and
- gaps exist in performance information collected.

5.3.1 Adoption of Theoretical Principle, PM-1

The analysis of AGENCY’s documentation provides evidence of the extent to which the proposed model of OBPM, including techniques for performance measurement, is adopted and applied by AGENCY.

As proposed in Chapter 2, the starting point for the critical examination of AGENCY’s approach to implementing OBPM is to determine whether it has identified the key Government outcome/s to which AGENCY is contributing. The examination then identifies whether AGENCY’s strategic objectives are clearly defined as it is these that primarily determine what AGENCY should measure. This information was gathered from AGENCY’s key strategic document, namely the 2005 – 2009 Strategic Plan.

In its Strategic Plan, AGENCY identifies itself as contributing toward achievement of the following Queensland Government outcomes:

- Fair and socially cohesive community
- Skilled community
- Strong, diverse economy

In addition to these, AGENCY also specifies departmental outcomes it aims to accomplish. These outcomes include:

- A society in which individuals can achieve personal and economic prosperity through building individual capacity to participate in the community and in employment; and
- Improved access to and opportunities for achieving a better quality of life.

AGENCY’s Strategic Plan defines its strategic objectives as to:

- improve the well-being of Queenslanders;
- improve the capability of individuals to participate in their communities and build community capacity; and
- build capacity to respond to community development opportunities to ensure communities and regions maximise economic and social outcomes.

The statements of outcomes and strategic objectives are consistent throughout AGENCYs key documents, namely the Strategic Plan, Annual Report and MPS. Table 5-2 below illustrates the matrix of linkages between the Government outcomes and identified AGENCY level outcomes. Table 5-3 also highlights AGENCY’s strategic objectives for achieving these.

Government Outcomes	AGENCY outcomes	AGENCY Strategic Objectives
<ul style="list-style-type: none"> ▪ Fair and socially cohesive community ▪ Skilled community ▪ Strong, diverse economy 	A society in which individuals can achieve personal and economic prosperity through building individual capacity to participate in the community and in employment	<ul style="list-style-type: none"> ▪ Build capacity to respond to opportunities to ensure communities and regions maximise economic and social outcomes ▪ Improve the well-being of Queenslanders
	Improved access to and opportunities for achieving a better quality of life	<ul style="list-style-type: none"> ▪ Improve the capability of individuals to participate in their communities and build community capacity.

Table 5-3 Matrix of Linkages between Outcomes & Strategic Objectives

To test the alignment of AGENCY’s resources, activities and outputs with these desired outcomes the researcher inserted the information contained in AGENCY’s Strategic Plan into a simplified OBPM model as described in Chapter 2. This model is presented in Figure 5-3.

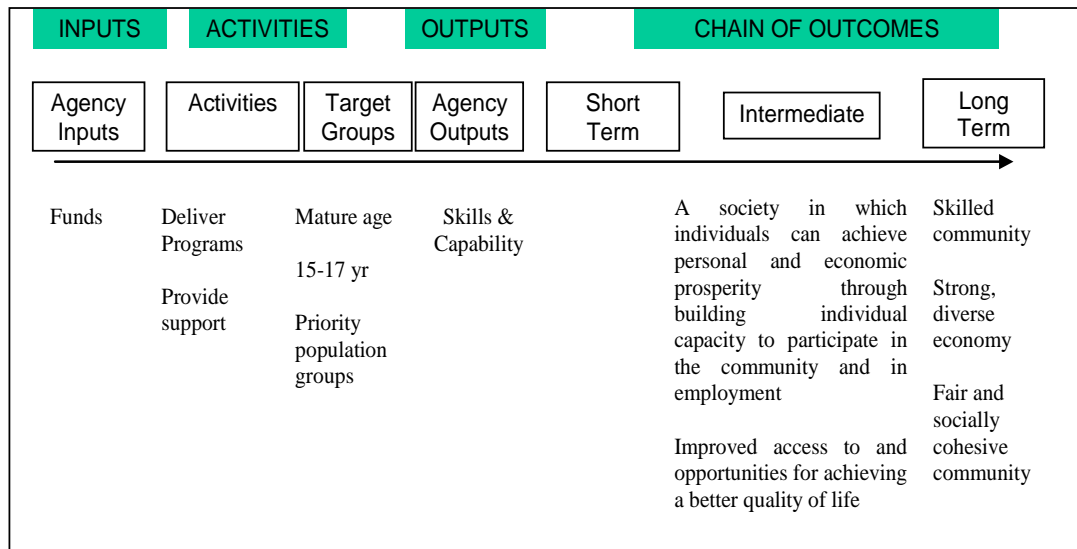


Figure 5-3 AGENCY simplified OBPM model (developed for this research)

Following AGENCYs identification of the Government outcomes to which it is contributing and as proposed in Chapter 2, AGENCY’s OBPM model should begin with a description of the intermediate outcomes expected from the its interventions and move across a series of shorter-term outcomes, and strategies to create a map of the intervention (Brown, 1995 in Hernandez, 2000). As shown in Figure 5-3 this pathway to achieving long term outcomes is not outlined. It takes a great leap of faith to see how the output of AGENCY, namely Skills and Capabilities, leads to individuals achieving personal and economic prosperity or improved opportunities for achieving a better quality of life. The result is a gap in performance information. By applying an enhanced linking process as described in Chapter 2 (refer to Figure 2-5) and as presented in Figure 5-4, this gap in information is apparent.

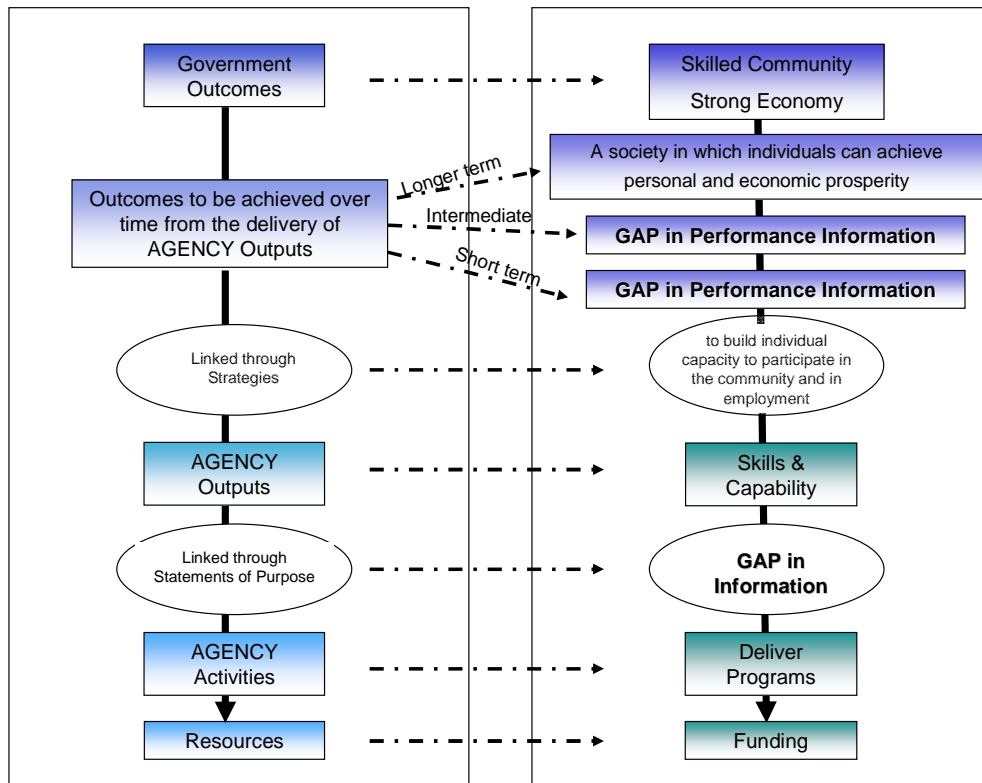


Figure 5-4 GAPS in AGENCY's Performance Information

As shown in Figure 5-4 intermediate and short term outcomes expected by AGENCY from the delivery of its output, Skills and Capability, are not described. Furthermore, information relating to the purpose for delivering its programs is also missing. Without greater clarification of how changes in behaviours, attitudes or skills of its client group can be expected from receiving services from AGENCY, it will be difficult, if not impossible, for AGENCY to determine whether its interventions contribute toward certain outcomes. Additionally, clear statements of purpose would assist AGENCY to ensure its activities are directed towards the intended outcomes. Such statements break up the sequence of events leading to the outcomes expected into a series of cause-and-effect. To illustrate this, the researcher developed an example of a pathway of change expected from AGENCYs delivery of its output, Skills and Capability. This is shown in Figure 5-5.

Although simple in its structure and content, the pathway of change depicted in Figure 5-5 shows that there are preconditions that must exist and hence that must be achieved by AGENCY (such as “individuals know how to get a job” and “being motivated to look for a job”) prior to achieving intermediate outcomes (such as “individuals have the capacity to participate in the community and in employment”).

Such intermediate outcomes must be achieved prior to the achievement of longer term outcomes such as “individuals being employed and earning an income”. The development of this example assisted the researcher gain greater insight into objectives of the MFO policy. It also assisted the researcher in the development and refinement of case study interviews.

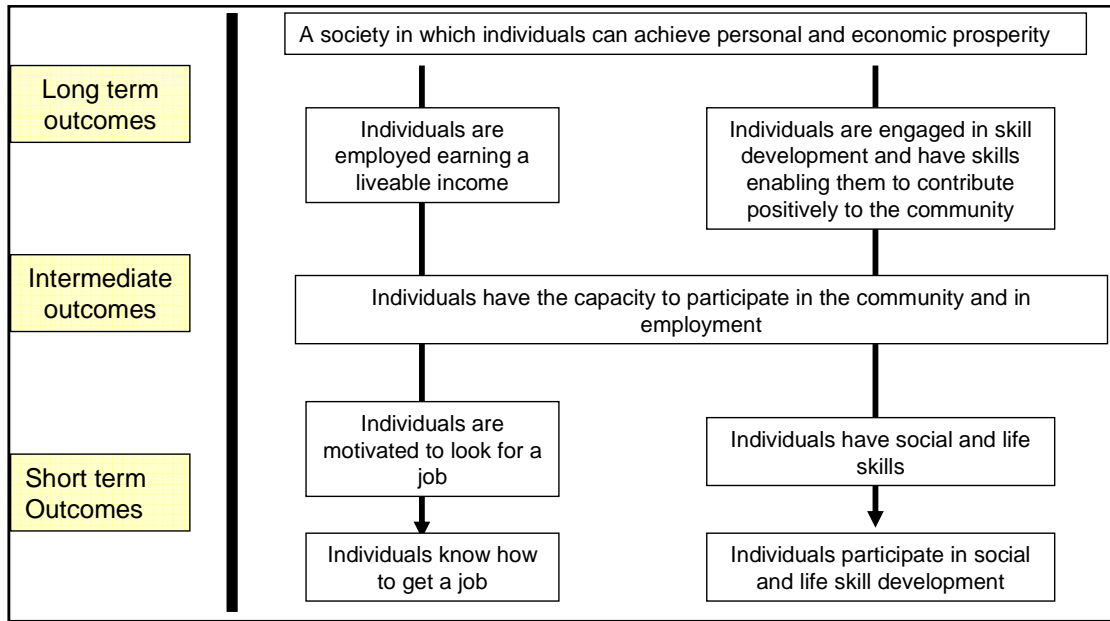


Figure 5-5 Example of a Change Map for AGENCY

The success of this approach depends on how well AGENCY can identify the incremental steps that move individuals toward the long-term outcome of personal and economic prosperity (Alter & Murty, 1997: p 112). Once completed, however, AGENCY will be better able to communicate clearly to all employees and stakeholders its performance objectives.

Interviews with case study participants from two work units within AGENCY, namely BUNIT and CENTRAL, sought views from interviewees as to the contribution to outcomes of their work. Responses amongst interviewees from the different levels of management varied. The responses from interviewees at the lower levels of BUNIT management generally centered on expenditure and the number of client contact hours they delivered. Typical responses included:

Meeting our direct grant bids

Information about cch [client contact hours] and team performances. I also use feedback from clients

It's about developing new products, about the programs meeting community requirements

One response from BUNIT considered that the “*main outcomes are those of the government, their initiatives and their agenda. From my point of view that is cchs and budget*”. The closest that BUNIT managers came to describing outcomes came in the form of very vague comments such as “*ensuring programs meet community requirements*”. Such responses provide evidence as to the elusiveness of the meaning of outcomes. Responses suggested that the main focus of BUNIT managers is generally on outputs with little consideration for the outcomes expected from delivering these outputs. This is regardless of whether these outputs were planned initially in line with outcomes.

CENTRAL managers generally described the desired outcomes as providing skills of relevance to clients and the community so as to address forms of disadvantage. Typical responses included the following:

The major ones are within the realm of disadvantage faced by the client such as social and life skills or circumstances that may prevent them from gaining employment. We provide them with skills that are relevant to them and to their community and we manage that within our investment strategy.

Our outcome is to address some of those client disadvantages and barriers.

While managers from CENTRAL recognised the concept of outcomes more easily, their descriptions of outcomes that AGENCY is working toward are fairly vague.

To explore for deeper understandings of the outcomes of AGENCY, interviewees were asked a number of probing questions. They were asked how they might identify whether particular clients are “better off” as a result of receiving products or services from AGENCY. The purpose of this question was to elicit responses that

might describe the changes in behaviours, skills or attitudes from clients as a result of receiving services. Hence, interviewees were asked to describe what “better off” would look like.

Responses from operational managers at BUNIT are typified as:

I guess we would know if they were better off if they were happy with the service and they were a returned customer. I'd guess they would be better off if there was better management of the product.

With this being the typical response from the lower levels of management at BUNIT, the manager from CENTRAL who is at the same level as those from BUNIT responded:

By looking at successful clients as if they attained completions in the program, and in each part of the program. We look at the level of their completion and match that with what the community requires.

Responses from more senior managers were more purposive. For example, one senior manager from BUNIT responded:

What I would describe better off for our clients would be the impact that it has on their [circumstances]: Positive impact and personal impacts on their life. With our individual clients that would be their individual skills, their jobs, their skills and knowledge.

This view was generally shared by senior managers from CENTRAL who typically described better off as:

[The] impact on the level of disadvantage; the impact of reported dysfunctions that get reported in different communities; the level of satisfaction of key stakeholders

At a broad conceptual level, the researcher did not expect interviewees to have difficulty in identifying outcomes. As expected, for most managers it appeared relatively easy for them to describe outcomes at a general level or to explain the desires of the citizens of a community in broad terms. While managers from CENTRAL appeared more confident in defining outcomes, in all cases CENTRAL referred only to the long range nature of outcomes of AGENCY's programs. It is apparent from these responses that the large majority of managers from BUNIT are centered on operational aspects of the agency's service delivery with limited concern for the outcomes to be achieved. Interviews failed to gain more detailed descriptions of shorter term outcomes in terms of descriptions of the behaviours, skills or attitudes that they would expect to change for the client as a result of receiving the agency's services. With a focus on the long range outcomes the very meaning of outcomes is rendered elusive. It is expected, therefore, that such elusiveness would see managers from both CENTRAL and BUNIT being less inclined to shift their focus away from activities and towards outcomes (Boland & Fowler, 2000; Greiner, 1996 in Halachmi & Bouckaert, 1996).

An interesting point from the interviews was raised. AGENCY refers only to the longer term outcomes to which it contributes. With many of the problems of government being complex, with inter-related social, cultural, and economic elements, it is reasonable to argue that the success of individuals in achieving personal and economic prosperity (an outcome to which AGENCY identifies itself as contributing to), is likely to be impacted by factors such as family dynamics, socio-economic conditions, or the health status of clients. Consequently, the achievement of personal and economic prosperity for individuals in the Queensland community is more than likely to be a shared responsibility of several agencies with each co-contributing towards these longer term outcomes. Furthermore, responses reveal differences in knowledge and understanding between BUNIT and CENTRAL as to what they believe outputs and activities are expected to achieve. CENTRAL appears to have difficulty drawing clearer links between the services and products delivered by BUNIT and the incremental outcomes expected to be achieved by delivering these services. BUNIT, on the other hand, generally experiences difficulty in "seeing" beyond what services they delivered to their clients. The concept of outcomes appears to have little or no relevance to BUNIT.

The adoption of techniques such as change maps and the subsequent completion of a logic model to link AGENCY's resources and activities to its outputs should provide a mechanism for AGENCY to create a visual map of the resources and activities to its outputs which has the purpose of moving individuals toward the positive changes.

The researcher introduced this concept to interviewees. Interviewees were asked: ***“Some people think it is important to develop a ‘chain of results’ for developing performance measures. What do you think about that?”*** This question also sought opinions on ***“whether a hierarchy of measures should be used that somehow are logically linked”***. The following comments were typical:

Um... I suppose a chain of results can help you analyse the business can't it? [It is] much better. Outcomes are really what you're supposed to do and if you have that chain of results you can do a better analysis

I wouldn't disagree with that. Like if you start with what they are going to achieve and then work down

Um that would be meaningful if we had the tools to collect that data. It's all very well and good to be able to say we know what contributes to what but collecting the data is a problem

That is a logical approach that we could take and we could measure things quite easily. But whether we capture the full depth of the activities and the quality would be questionable

While these responses indicate some support for the theoretical principles, the interviewer suspects that, without a clearer direction and intention from AGENCY to venture down this path, managers would be unlikely to take the initiative to develop such links.

When interviewees were questioned as to whether their work unit has ***“established clear strategic objectives”*** that clearly describe ***“how it will contribute to these major outcomes”*** and what outputs (products or services) it will deliver to achieve

the desired performance levels, typical responses from BUNIT were vague in that they:

know where [their] business is, [and they] know what [they] have to achieve [and] they are aligned to the objectives set by the agency

When asked whether their work unit collects information that might help **“inform it about whether or not it is achieving these outcomes”**, the general response from interviewees within BUNIT was:

No we don't measure 'better off'. To do that we would need to go further down to the grass roots level and look at individual performance of what staff actually does in a program.

I think maybe we could use other measures to determine whether we're successful or not. [However], I don't believe we know enough of the client – we don't capture all of the client information to be able to do that.

While most interviewees generally agreed with the principle of developing a logically linked ‘chain of results’, some queried the degree to which it should be done. For example, one interviewee commented that:

you need to look at something like that. [However] you need to clarify exactly at what level you go down.

In particular, this response considered issues such as *“how far down do you go when you start delving into resources?”* Overall interviewees from BUNIT were of the view that *“there is not a hierarchy that they actually report on at their level.”* It soon became obvious to the interviewer that the level of commitment by BUNIT was limited to pursuing the notion of developing a chain of results.

This view was also supported by one interviewee employed within CENTRAL who indicates that the collection of information that helps inform the achievement of outcomes:

is probably done in an ad hoc way. Program measures are developed at an output level and we know how it is linked to government outcomes. It's done at a high level but it is not unpacked at a lower level.

This view was shared by another who indicated that:

there is a disconnect[ion] between the MPS level and the operational level. The Managing for Outcomes at the operational level becomes somewhat vaguer.

These responses suggest that AGENCY, particularly at the operational level of BUNIT, is less inclined to shift their focus away from activities and outputs and towards outcomes. CENTRAL also appears less concerned with ensuring links are developed between activities and outputs and the outcomes to which they contribute. As such, the researcher has some doubt about the practical use of assessments of outcomes achievement by AGENCY. Rather the implication is that the performance measurement information collected by AGENCY is largely for the purposes of monitoring the agency's MPS targets from a budget perspective rather than the evaluation of service delivery.

PM-1 argues that in order to reduce the gap in linking outputs to outcomes and to provide for a more meaningful understanding of an agency's performance, AGENCY should, in the first instance, unpack the outcomes expected by government and more clearly document progressive achievement towards these outcomes (Hatry, 1999). This requires information on how outcomes change over time and how outputs contribute toward these outcomes. Secondly, through linking each of these components in a logical way, AGENCY will improve its ability to establish a common understanding of what BUNIT and CENTRAL must do to achieve expected performance and how performance will be assessed (Patton, 1990; Williams, 2003). As suggested by Alter & Murty (1997), it will also reduce the likelihood that the performance expectations of the two work groups will be different. When this theoretical principle was posed to interviewees, their responses were supportive. Interviewees were quickly able to identify significant benefits to

them in being able to assess how they would know what their programs were achieving.

Using a change map and the logic model will strengthen the performance measurement framework of AGENCY since it will better define “what they are trying to accomplish, the early and intermediate outcomes that must be reached to be successful, how all of the outcomes will be measured, and what actions they are going to have to take to bring all of this change about” (Anderson, 2005: p 9).

5.3.2 Adoption of Theoretical Principle PM-2

In addition to seeking evidence of the extent to which AGENCY uses program theory to describe its performance expectations, the researcher also sought evidence of the extent to which AGENCY uses multiple types and categories of performance measures that are suitable for measuring the success of outputs and activities in achieving desired outcomes. The types of performance measures expected relate to outcomes, outputs, activities and resources; while outcome indicators and measures of effect should be used to report progressive achievement of desired outcomes. Categories of measures should include quantity, quality, and cost.

The researcher analysed information from relevant documentation of AGENCY so as to determine the types of performance measures it uses. AGENCY is required by legislation (FAAA, section 95) to ensure that its Annual Report communicate performance against the objectives and outputs identified in its Strategic Plan. The researcher therefore expected to find a close alignment between the objectives and outputs specified in the Strategic Plan and the performance measures reported in the Annual Report. AGENCY is also required to document its planned and estimated actual output performance in its MPS, which is presented to Parliament as part of the annual budget process. The performance measures reported by AGENCY in its various documents are transferred into a template as shown in Figure 5-6. As shown in Figure 5-6, it is clear that each of AGENCY’s key documents contain different sets of indicators and measures.

INPUTS		ACTIVITIES		OUTPUTS		CHAIN OF OUTCOMES		
Agency Inputs	Activities	Target Groups	Agency Outputs	Short Term	Intermediate	Long Term		
MEASURES						INDICATORS		
Strategic Plan								
		% population aged 15-64 years in programs	Quality: Satisfaction with services & products					
Ministerial Portfolio Statement (MPS)								
Revenue generated			Quantity: # Programs Completed # clients provided with support			% of clients gaining employment/further study		
Total funding			Quality: - % satisfaction - % programs successfully completed			Program participation rate		
			Location: % delivered in regional Qld					
			Cost: -Cost per hour -Cost per program					
Annual Report								
- Funding for clients by program type	# program commencements	# clients in programs by age group # clients in programs # Youth incentives	Quality % satisfaction			Change in employment status		
						Program participation rate		

Figure 5-6 Performance Measures used by AGENCY in various documents

The researcher argued earlier in this chapter that AGENCY’s Strategic Plan, considered to be the primary document that describes its key directions, has fallen short on adequately outlining how the agency is planning to achieve long term outcomes (refer to Figure 5-3). The researcher suggests that a reader would find this document to be quite difficult to find a common ground for discussion and understanding of the agency’s programs for achieving government’s desired outcomes. This difficulty is largely because the programs and activities lack specificity. The researcher also argued that it used broad and vague objectives for its

activities and programs which make it difficult to assess whether specific program objectives have been achieved (Baldwin, 2000: p 19). Following this with a review of Figure 5-6 the researcher finds that AGENCY’s Strategic Plan, is extremely scant on how it will measure its performance with only one quality measure of output (that is, satisfaction rates) being specified. A hierarchical arrangement of indicators and measures should enable an assessment of the intended outcomes expected from the delivery of agency outputs, and the linkage between these outcomes and the long-term outcomes desired by Government. Since this has not been done measurement in general will be error prone and ineffective” (Alter & Murty, 1997: p 104). The result is a gap in performance information.

Figure 5-6 also shows the measures and indicators published in the AGENCY’s Annual Report. The Annual Report identifies a few more indicators and measures than does the Strategic Plan.

AGENCY is required by legislation (FAAA, section 95) to ensure that its Annual Report communicate performance against the objectives and outputs identified in its Strategic Plan. The researcher, therefore, expects to find a strong alignment between the objectives, outputs and outcomes shown in Figure 5-3 and the performance measures reported in the Annual Report as shown in Figure 5-6. This alignment might be considered by reference to the following:

Guiding Questions (www.treasury.qld.gov.au)	Pathway of Change	Hierarchy of Indicators/Measures
What was invested?	Funds	Funds by program type
What was done?	Deliver Programs Provide Support	#Program commencements
How well was it done?	Clients by age group	% satisfaction
Was anyone better off? What changes occurred in the community?	Individuals achieve personal and economic prosperity Build individual capacity to participate in the community and in employment Improved access to and opportunities for achieving a better quality of life	Change in employment status Participation rates

Table 5-4 Alignment of Pathway of Change & Measures

As may be seen from Table 5-4 there remains a gap in the information for a number of possible reasons, namely:

- The absence of some indicators and measures such as an indicator to measure whether clients received improved access to and opportunities for achieving a better quality of life.
- The appropriateness of measures such as satisfaction rates as a measure of whether the programs or support services were delivered well. It is conceivable that clients report satisfaction with a program for reasons other than whether it was well delivered or whether it met their needs. It could be argued that a measure such as “the % of clients who successfully completed their programs” is a better measure of quality than satisfaction rates.

At a glance it can be seen that AGENCY’s MPS identifies yet another set of indicators and measures which are used to monitor and report against the agency’s delivery of outputs. While the MPS includes two input measures, namely revenue generated and total funding, it contains several measures of outputs within the classifications of quantity, quality, location and cost. Two outcome indicators (percentage of clients gaining employment/ further training and program participation rates) are specified. Interestingly, measures contained in AGENCY’s MPS have been included in the Annual Report. However, these are included as an appendix and do not form part of the body of the report. Measures reported in the MPS are greater in quantity than in the other documents. The reason for this is likely to be associated with the need to comply with the Queensland Government’s budgeting process.

As proposed in Chapter 2, performance measurement techniques should focus on different types of measures. These types should include outcome indicators and measures of effect as well as measures of output, activities and resources. Outcome indicators should be collected and reported by central agencies. Measures of effect should be collected by AGENCY to provide information on its progressive achievement toward the Government’s desired outcomes. The inclusion of indicators, such as “% of clients gaining employment” and “program participation rates”, relates more to longer-term outcomes. Their inclusion in the MPS might present a risk to AGENCY in being held accountable for elements that are outside

the control of it as a single agency (Friedman, 2001), particularly given the absence of shorter-term measures of effect. The inclusion of these longer-term measures of outcome in the MPS appears to relate to those factors largely not within the control of AGENCY (Carlin & Guthrie, 2001: p 23). The inclusion of such measures is likely to be unfair when AGENCY is judged on performance that is also influenced by others (De Bruijn, 2002: p 582).

Although each of AGENCY's documents detail different types of measures, the most common types (in the case of the MPS) include measures of inputs and measures of outputs. Input measures focus on funding levels provided to AGENCY. Output measures focus mainly on quantity and quality measures, such as the number of program completions and the percentage of client satisfaction and the percentage of clients who have successfully completed programs. Measures of activity are non-existent.

It is also evident that appropriate measures of effect are not reported by AGENCY. Such measures should be reported to assist in assessing whether the client is better off as a result of receiving the agency's services. Such measures should enable assessment of the performance within the bounds of the agency (Pizzarella, 2004: p 635).

The QAO (2005b: p 15) in its audit report, found that for approximately half of the outputs of Queensland government agencies that it audited, "quantity measures accounted for more than half of the measures reported" and that "approximately 54% of quality measures related to 3 [of the 11] departments, [and] 65% of cost per unit measures related to 2 departments". Similar findings have been reported in other Australian states where the suggestion is that "being busy" is no substitute for achievement (State of Victoria, 1999: p 49). Criticism has been levelled against the use of predominately output measures at the expense of activity. The fact that AGENCY does not employ measures of activity suggests it will experience difficulties in making a proper assessment of performance that also requires "insight in the process" (de Bruijn, 2002: p 592). Without a focus on process, AGENCY is unlikely to answer the question "Was it done right?" (Halachmi, 2005: p 262).

Analysis of interview data confirms the findings from the review of documentation, only in the sense that the performance measures largely used by AGENCY are quantity measures of input and output. The measures that interviewees identify as being used by their respective work unit differs to those measures identified in AGENCY’s documentation (refer to Figure 5-6). The types of measures reported by interviewees from BUNIT are shown in Table 5-5.

Input	Outputs
<ul style="list-style-type: none"> ▪ Operating results ▪ Full-time equivalent employees (ftes) ▪ Revenue 	<ul style="list-style-type: none"> ▪ <u>Quantity:</u> ▪ Annual hours delivered [ahd] ▪ Client contact hours [cch] ▪ Output performance, broken down into total by division, by funds ▪ <u>Quality:</u> ▪ Dollars invested per client completion ▪ The total number of program completions achieved by clients by ATSI, age groups, and geographical locations

Table 5-5 Types of measures used as reported by Interviewees

Clearly, this finding suggests that AGENCY collects performance information on yet another set of measures that may or may not be included in its published documents.

While some interviewees from BUNIT state that performance information is collected for activities, these interviewees have difficulty in identifying which activities are included in the measurement process. One interviewee responded that these are collected “*only at a certain level*” but was unable to specify the level at which information is collected. Such responses suggest to the researcher that interviewees feel a sense of disassociation from the performance measurement process.

BUNIT identifies its measures as those limited to “*cchs and budget.*”, while CENTRAL generally identifies those measures documented in the MPS, with little acknowledgement of the content of the Strategic Plan or the Annual Report. It is apparent that BUNIT, the operational arm of AGENCY, is strongly focused on expenditures and only on the quantity of services being delivered. This finding is consistent with that noted by Wholey & Hatry (1992). BUNIT and CENTRAL, in

using different sets of performance indicators and measures, have different meanings of performance. As suggested by authors, including Wholey (1999) and Behn (2003), such measurement of performance is of limited value if there is no consistency in the story behind what is measured. Opportunities exist for AGENCY to integrate better the managers' understanding of their operating performance and the strategic direction of the agency. This is consistent with the views reported by Burns, Ezzamel & Scapens (1999) and Frank & D'Souza (2004). The use of different types of indicators and measures in different documents has the potential to confuse employees and stakeholders as to the performance standards expected of them and for what purpose these standards are to be met. This confusion may be defused by using a common set of measures and indicators throughout the agency.

Measurement techniques should focus on measures of effect as well as different categories of performance measures that are a balanced set of quantity, quality, and cost types of measures. For each service of the agency, a mix of workload, efficiency and effectiveness measures should be developed (Frank & D'Souza, 2004: p 635).

Having identified the types of performance measures used by BUNIT managers, interviewees were asked "***How do you go about deciding on which measures to use? Why?***" Typical responses from BUNIT are reflected in the comment:

The way that we've been working and looking at the performance measures are that, which [CENTRAL] has and by aligning with that. And we're reporting back on what it wants.

It is clear from this comment that BUNIT's management are generally of the opinion that decisions relating to the type of performance measures that are used are decided by CENTRAL. This view is further evidenced by the following comment:

The type of performance measures we prefer to use is way outside of [BUNIT's] scope at the moment anyway". "We work on a system that gives us a certain allocation ... and [BUNIT] "does not think management can make decisions to change [their] course [of action].

These comments strongly suggest that a top-down approach is employed by AGENCY in selecting performance measures. Such a top-down approach to developing measures may affect the motivation of managers of BUNIT since there is a risk that it is viewed as “a command of central management or as a reporting device to outside agencies” (Pizzarella, 2004: p 647). These views may potentially lead to a compliance-based attitude by those within BUNIT. Such potential is also reported by Poole et al. (2000). There is evidence of this particular risk to AGENCY by way of the following comment by a CENTRAL interviewee:

In terms of MFO in the actual title I'd say it's working at the MPS level, which is reporting upwards at the department but below the level at once a year there's a mad rush to report against those performance measures.

This research suggests that although performance information is collected and reported by AGENCY, through its work unit CENTRAL, the reality for AGENCY is that the MFO policy is “essentially undertaken out of a sense of compliance rather than a belief in its virtues” (Moynihan, 2005: p 219). This is despite comments from interviewees indicating their need for more detailed and logical measurement of their performance achievements.

While recognising the compliance natured process for selecting performance measures, the researcher offered interviewees the opportunity to identify those performance measures that they would prefer to use where they might possess the choice of selection. Interviewee responses to this opportunity are shown in Table 5-6.

BUNIT	CENTRAL
<i>WHAT MEASURES THAT THEY WOULD PREFER TO USE</i>	
<ul style="list-style-type: none"> ▪ Number of staff sick days ▪ Professional development targets ▪ Feedback from our clients and our staff ▪ cchs ▪ Revenue 	<ul style="list-style-type: none"> ▪ Operating results ▪ FTEs ▪ AHDs ▪ The total number of program completions achieved and that could include any commercial arrangements, government investment ▪ Dollars invested per completions ▪ Efficiency and effectiveness measures
<i>WHICH MEASURES WERE MOST RELEVANT OR MORE IMPORTANT</i>	
<ul style="list-style-type: none"> ▪ The relevant ones are output per FTE, cost per output – those are the main things. There’s also FTE per expense ▪ cch output – they’re important because if we don’t achieve it then they have to find it from somewhere else and that means someone’s job ▪ The most relevant ones are the financial outputs and the cch outputs. That’s what the department judges our performance on 	<ul style="list-style-type: none"> ▪ Operating results, the FTEs, AHDs ▪ Revenue and expenses ▪ Number of successful completions achieved; dollars invested per completed program; efficiency and effectiveness measures

Table 5-6 Interviewee Responses relating to the measures they prefer to use and relating to the measures they consider to be most relevant or more important

Table 5-6 shows stark differences in preferences of performance measures between BUNIT and CENTRAL. It becomes clear that BUNIT searches for ways to manage its business unit from an operational perspective that is, managing human resources and ensuring sufficient client numbers to generate required revenue. In relation to work units’ preferences for and choice of performance measures, one interviewee from BUNIT commented:

We’d like to know cch [client contact hours] per activity and that sort of stuff. But we’re not even close to that.

CENTRAL, on the other hand, tend to seek measures that enable it to monitor the performance of the agency as a whole.

These findings suggest that AGENCY’s primary goal for measuring performance is to document what the agency is delivering in terms of outputs. The suggestion is that the primary goal is to account for its use of public funds. The findings also suggest that there is a disconnection between the performance measures reported and what users consider relevant. This is largely attributable to the absence of any real assessment of the process associated with specific results. Consequently,

AGENCY's performance measures are viewed as "output measures" rather than measures that support an outcomes-based focus.

5.3.3 Perceptions of OBPM-in-Use

The adoption and application of OBPM and performance measurement is a critical consideration for achieving a focus on outcomes for the Queensland government as they continue to operate under the MFO policy. In adopting OBPM and applying performance measurement practices, agencies rely on the quality and accuracy of performance information. As suggested by Ballou, et al (1998), AGENCY would obviously prefer that their performance information is of the highest quality. Put simply managers must (Bovee, Srivastava & Mak, 2003: p 51-74):

- get information that they find useful;
- understand it and find meaning in it;
- find it applicable to their purpose of interest in a given context; and
- believe it to be free of defects.

Consequently, the opinions of interviewees were sought on aspects of quality. Questions related to the degree to which interviewees believe that "*performance measurement information is sufficiently correct*" and whether interviewees "*rely on the information and have confidence in the quality of information*".

Responses from BUNIT are typified by the following comments:

I don't rely on that at all. I'd have to go ask for more accurate figures than that. We are struggling to get that data because [BUNIT] doesn't have the capability to get that data

We have to drill down fairly significantly to get what we want [and] we don't have the mechanisms to get that data

The teams have issues with the integrity of the data entry, but at my level it is alright. I don't have the resources to be going back and checking on that

I have to go look at different reports because individually they're not accurate. I have to make a mental calculation to know where we are

At the macro level I'm happy with it. At the micro level, is it worth the effort to drill down?

They are simply basic reports that tell whether our basic performance is being met and that's all its doing. It depends on how much you want to tell about performance. Sometimes it takes a day basically to drill down. I would normally look at that on a weekly basis or fortnightly basis

While managers from BUNIT were less than complimentary of the quality of performance information they receive, managers from CENTRAL gave mixed responses about the quality of information. For example, one CENTRAL response was:

There are validation levels built into the data input. So there is a level of confidence there. It is as correct as the process put into place

While other responses from CENTRAL were:

Every report has disclaimers and notes attached to it. So there are general concerns about the quality of our data. But I think people believe it because the department produces it

I think traditionally if you ask three different people the same question using the same data sources, you'd get three different answers

There is little doubt that AGENCY would obviously prefer that its information outputs be of the highest quality. While there is little doubt that data accuracy is an important aspect of quality of information (Ballou, Wang, Pazer, et al, 1998), the quality of information does not exist in the absence of its relevance to users and the

agency. “Information itself does not exist except when used for a purpose” (Ballantine, Bonner, Levy, et al, 1996:7). AGENCY’s process for measuring performance has the potential to not provide enough relevant information, yet at the same time are overwhelming to the user. Furthermore, quality cannot be measured in isolation from the usefulness. Information fails to be useful where it is incomplete (Amir, Sumit & Varghese (2004).

Responses from the interview suggest that performance information reported by AGENCY is viewed as less than useful. Indeed such information is likely to less than useful where the measurement and reporting of performance information simply serves to meet AGENCY’s legislative requirements under its budgeting process. The researcher argues that such a view impacts significantly on interviewees’ perception of the quality of performance information.

When asked whether the performance information is “*easily available on a regular and timely basis*” responses are those included in Table 5-7.

BUNIT	CENTRAL
<ul style="list-style-type: none"> ▪ I could honestly say that there could be times when I may not look at that report for 5 or 6 weeks and that would have very little impact on the next figures that would come up ▪ It’s easily available but it’s not that accurate (laughs) ▪ The performance reports are put on the internet so everybody can access that if they want to. That’s been like that for 3 years now. ▪ We try to get the information 7 working days after the end of the month. The cch report we work on daily, but the report is available twice a month 	<ul style="list-style-type: none"> ▪ We can grab the data from the central system. It’s exactly the same information that [SDCs] have. It’s all the one information ▪ We have a web-based system. All [SDCs] have access to it ▪ We would like it to be a bit quicker than when we get it. It all depends on how quickly [BUNIT] process their data – they are very slow. But generally, monthly is fine

Table 5-7 Interviewee Responses to questions relating to whether performance information is easily available on a timely and regular basis

Table 5-7 suggests that both BUNIT and CENTRAL have little real concern over the timeliness of the performance information they receive. Clearly, receiving information on a monthly basis is satisfactory from a CENTRAL perspective. This is to be expected since CENTRAL would be required to summarise year-to-date performance information for the central agencies. On the other hand, some of the BUNIT managers are unlikely to access the information for a period of five to six

weeks. The researcher is not surprised by this response. It might be reasonable to expect that in cases where the information is considered to be useful or indeed relevant then BUNIT would be likely to access the information on a more timely basis.

Interviewees were finally asked for opinions on the degree to which “*they considered performance information impacted on your work area*”. Opinions were sought in relation to the impact that performance information has on the decision-making of the management of BUNIT and CENTRAL, the improvements in performance that AGENCY may have experienced as a result of using information to evaluate the effectiveness of service delivery, and ultimately the ability of the work units to improve their accountability for achieving expected performance levels.

During the interviews, while it was generally expressed by BUNIT that while there “*is not enough information*” to inform them of their achievement of the work unit’s objectives, the quality of performance measurement information has improved their decision-making to the extent that they are able to decide on “*whether a program can run or not run, whether we should be in the business or not, or whether a team is underachieving.*” CENTRAL generally believes their decision-making has improved by virtue of their newly implemented “*funding redirection policy.*” CENTRAL report that such information enables them to review what “*outcomes the [SDC] is giving in return for that investment.*”

Decision making that supports the objectives of the MFO policy involves choosing amongst alternative courses of actions in terms of the effectiveness in the attainment of Government outcomes. Where performance information does not include a balanced set of different types of measures, it is doubtful that the level of detail is sufficient for a cause-and-effect relationship to be drawn. It is probable that the positive perceptions regarding the decision-making capability of managers is typified by what one interview offered:

We evaluate the performance of teams against their targets and their budgets. It could be the case where it’s not worthwhile being

in the business because we can't operate within the budget that part of the business is knocked off.

The implication is that the information used for decision making is largely for the purposes of budget monitoring rather than for the rigorous evaluations of service delivery options. A compliance focus by AGENCY will have implications for managers' sense of accountability for results. In terms of whether interviewees consider the consequences or otherwise of non-performance, opinions are mixed. Some interviewees indicated that there are no consequences for non-performance and other interviewees indicated the opposite. Managers, particularly at the operational level, regard the OBPM-in-use, including performance measurement in their agency, as being incapable of challenge. This is consistent with the comments reported by Burns, Ezzamel & Scapens, (1999). There is some evidence to support this view in the comment offered by one interviewee that *"the performance measures are dictated by [CENTRAL] which is part of the issue"*.

5.4 Implications of OBPM-in-use for AGENCY

The OBPM-in-use by AGENCY has certain advantages for the agency. At the same time, however, AGENCY may experience several adverse effects from its OBPM-in-use that it should be aware of before it attempts to enhance these practices.

Positive effects exist as a result of AGENCY's OBPM-in-use. Firstly, it provides an improved level of transparency to the overall performance of AGENCY than that provided by an input-focused approach. Improvements in public sector performance start as soon as an agency can measure its existing output (Osborne & Gaebler, 1992). Such transparency works towards improving the accountability of AGENCY. As noted by the QAO (2005b: p 7), measuring and reporting output performance is a "primary accountability mechanism in the Queensland public sector's performance management framework".

Secondly, the current focus by AGENCY on measuring outputs seems to have resulted in an increase in outputs over recent years – what gets measured, gets done (Peters & Waterman 1982; Osborne & Gaebler, 1992; Robson, 2002; O'Keefe, 2007). This is consistent with the approach of the Queensland Government's MFO

policy, whereby the shift in focus is away from inputs toward a greater focus on managing for outcomes (Osborne & Plastrik, 1997).

There are, however, several adverse consequences that AGENCY may experience as a result of its OBPM-in-use. While the use of performance measures improves the accountability of AGENCY, too much of a focus on assessing performance for accountability purposes tends to distract from the need to assess the efficiency and effectiveness of service delivery. As suggested by Halachmi (2005: p 262), accountability tends to be compliant-focused and permits assessment of whether AGENCY is meeting legislative requirements associated with the MFO policy. The key objectives of the MFO policy suggest clearly that the focus should be on enabling assessments to be made of efficiency and effectiveness. As such the researcher agrees with the views of Halachmi (2005: p 262) that such an assessment of efficiency and effectiveness requires a focus on productivity performance.

In the second place, restricting performance measurement to outputs may encourage game playing. While the focus on measuring outputs and products may raise the outputs in accordance with the performance standards set, such an increase in the number of outputs delivered may have either limited or negative social significance (de Bruijn, 2002: p 579). This risk is identified by one CENTRAL interviewee who reported that the measures used by CENTRAL *“drive the behaviours within [SDCs] and if we just focus on completions, do we start to cheapen the value of our programs? Do we focus only on those clients most likely to be successful?”*

Delivering complex services requires professionalism, and the task of measuring performance mainly on the basis of quantity tends to ignore the importance of this aspect. As suggested by de Bruijn (2002), the professional does not ignore the complexity of the task. It is suggested that this would be more so where the interactions between the professional staff and the client is complex. The professional staffer *“builds up ‘tacit’ knowledge in handling this complexity. Part of this knowledge is about specific, local circumstances”* of BUNIT (de Bruijn, 2002: p 582) and performance should help assess the effect of this on the quality of services delivered.

Too great a focus on measuring efficiency at the expense of assessing effectiveness may inhibit innovation (Behn & Kant, 1999: p 474). Efforts to maximise the number of products delivered necessarily requires BUNIT to optimise its resources. Such optimisations occur at the expense of innovations and as such may not maximise the effectiveness at which services may be delivered.

There is appears to be “an inherent problem” within AGENCY with the way in which OBPM is “commonly understood, implemented and used” (Halachmi, 2005: p 256). It may be that given the particularly small numbers of interviewees who have undertaken professional development in either performance measurement, AGENCY is yet to possess the necessary internal capacity to implement OBPM successfully such that it meets the objectives of the MFO policy. Furthermore, the researcher agrees with the view reported by Gianakis (2002), that a continued compliance focus on performance measurement is unlikely either to secure the necessary motivation of managers to improve results or to enhance the capacity to provide effective services to the Queensland community. Information about performance is unlikely to be useful to managers who do not possess the intrinsic motivation to use their capacity so as to improve results (Swiss, 2005: p 593).

5.5 Conclusion

The key principles developed in Chapter 2, namely, PM-1 and PM-2, guide the collection of data in this research. A mixed-method approach to investigating the research problem and associated research questions generated qualitative data that contributed to a triangulated analysis of the OBPM, including performance measurement practices, within AGENCY.

A critical group of practitioners was used to provide constructive feedback relating to the theoretical principles developed in Chapters 2. Documentation relating to policy statements, guidelines, legislation, information bulletins and seminars, audit reports, AGENCY planning documents, AGENCY MPS, and AGENCY annual reports were analysed for the purposes of gaining knowledge of the Queensland Government’s MFO policy, the intended-OBPM and the OBPM-in-use at the agency selected for this research. The case study and interviews were employed to

investigate the extent to which the proposed model of OBPM, including techniques for performance measurement, is adopted and applied by AGENCY.

The theoretical principle, PM-1, relates to the way in which an agency describes its expected performance. Evidence collected in this research determines whether there is support for the application of program logic through the use of techniques such as change maps and logic models to describe performance expectations. Discussions with the critical group of practitioners and analysis of documentation determine whether support is given for the theoretical principle, PM-1.

Several members from the critical group of practitioners provided positive comments indicating that PM-1 enables agencies to determine why their program contributed toward certain outcomes or why certain Government outcomes were not achieved. Examination of documents indicates that while the process of linking agencies' outputs to Government outcomes is challenging, agencies should map the cause and effect between its output and its ultimate contribution toward outcomes. With this being the case, however, there appears to be a lack of clarity of how an agency would demonstrate this. The means by which an agency's delivery of outputs would lead to, over time, the achievement of outcomes appears unclear, and in most cases, is not well described. Support for PM-1, however, is found from analysing information contained in seminar papers provided to agencies in information sessions. These papers advise agencies that in order to link their outputs to the results expected from the delivery of these outputs and then ultimately to Government outcomes, they should describe a series of expected changes in the behaviour, attitudes or skills of their client groups over time. This implies the use of techniques such as change maps.

Analysis of documentation provided support for theoretical principle, PM-2. Queensland Government agencies should measure performance by developing measures suitable for communicating their contribution to the Government's desired outcomes and suitable for assessing the success of activities and outputs in contributing toward these desired outcomes. It is recognised, however, that, since accountability for outcomes would be shared amongst several agencies, outcome indicator information is coordinated by central agencies. Hence, there is no requirement for agencies to report on the achievement of Government outcomes.

They are, however, required to identify the Government outcomes to which they contribute toward and monitor and report on their outputs, including the agreed output performance targets which are published in annual Budget Papers.

Findings from this investigation indicate that the type of performance measure is limited to outputs, while the categories relate to the quality, quantity, timeliness, location, and cost. While it is apparent that agencies do not have a legislative requirement to report on components below the output level, an analysis of documentation does recommend the internal disaggregation of outputs into lower level components such as sub-outputs, activities or projects so as to improve the internal management of the agency.

Analysis of AGENCY's documentation and analysis of interview data provided evidence of the extent to which the proposed model of OBPM, including techniques for performance measurement, is adopted and applied by AGENCY. These documents show consistency in its statements of Government and the agency's outcomes and strategic objectives. The statements of expected outcomes appear, however, to be long term in nature. There is no evidence that AGENCY describes a pathway to contributing to these long term outcomes. The result is an apparent gap in performance information. Without greater clarification of the how changes in behaviours, attitudes or skills of its client group can be expected from receiving services from AGENCY, it will be difficult, if not impossible, for AGENCY to determine whether its interventions contributed toward certain outcomes.

The researcher did not expect interviewees to have difficulty in identifying outcomes at a very broad conceptual level. As expected, for most managers it appeared relatively easy for them to describe outcomes at a general level or to explain the desires of the citizens of a community in broad terms. While managers from CENTRAL appeared more confident in defining outcomes, in all cases CENTRAL referred only to the long range nature of outcomes of AGENCY's programs. Their descriptions were fairly vague. Responses from BUNIT indicated that the main focus of BUNIT managers is generally on outputs with little consideration for the outcomes expected from delivering these outputs. This suggests that with a focus on the long range outcomes, the very meaning of outcomes is rendered elusive. It is expected, therefore, that such elusiveness would see managers from both CENTRAL

and BUNIT being less inclined to shift their focus away from outputs and towards short term or intermediate outcomes.

Results of the analysis of documentation of AGENCY as well as the analysis of interview data indicate that AGENCY's Strategic Plan, considered to be the document that describes its key directions, appears to be very scant on how it will measure its performance with only one activity measure (that is, the percentage of population aged 15-64 in programs) and one quality measure of output (that is, client satisfaction rates) being specified. AGENCY's Annual Report contains a broader range of measures, while the MPS identifies yet another set of indicators and measures, in more detail, which are used to monitor and report against the agency's delivery of outputs. The reason for there being a greater level of detail in the MPS is likely to be associated with AGENCY's need to comply with the Queensland Government's budgeting process.

Although each of AGENCY's documents detail different types of measures, the most common types (in the case of the MPS) include measures of inputs and measures of outputs. Input measures focus on funding levels provided to AGENCY. Cost measures are also utilised. Output measures focus mainly on quantity and quality measures. Measures of activity are extremely limited and measures of effect are non-existent. Without a focus on activities or processes AGENCY is unlikely to answer the question "Was it done right?" The majority of interviewees identified measures contained in the MPS with little acknowledgement of the content of the Strategic Plan or the Annual Report. It is apparent that BUNIT, the operational arm of AGENCY, concentrates strongly on expenditures and only on the quantity of services being delivered.

The data analysis also revealed that AGENCY includes in its MPS longer-term measures of Government outcomes. It is argued by the researcher that the inclusion of these in the AGENCY'S MPS would seem to relate to those factors largely not within the control of AGENCY. The inclusion of such measures is likely to be unfair when AGENCY is judged on performance that is also influenced by external factors.

Data collected from interviewees suggested that managers from BUNIT were generally of the opinion that decisions relating to the types of measures used by them are determined by CENTRAL, that is, a top-down approach is used. With such a top-down approach to developing measures there is a risk that performance reporting is viewed as a command of central management or as a reporting device to outside agencies. These views may potentially lead to a compliance-based attitude by those within BUNIT and suggests that managers, particularly at the operational level, regard the OBPM-in-use, including performance measurement in their agency, as being incapable of challenge.

Where performance information does not include a balanced set of different types of measures, it is doubtful that the level of detail is sufficient for a cause-and-effect relationship to be drawn in this case. The implication is that the information used for decision making will largely be for the purposes of budget monitoring rather than for the purpose of rigorous evaluations of service delivery options.

Managers from BUNIT appeared to be less than complimentary about the quality of performance information they receive and reported that they generally did not rely on the information provided to them. Having said this, they also appeared to accept the apparent lack of data integrity on the basis that “*they did not have the resources to be going back and checking*”. Generally, the opinion was that the information was satisfactory at the macro level. However, at the micro level it was not considered to be worth the effort to drill down for further accuracy.

The OBPM-in-use by AGENCY offers certain advantages to the agency. Firstly, it provides an improved level of transparency to the overall performance of AGENCY when compared to that provided by an input-focussed approach. Secondly, because we know that “what gets measured, gets done” the current focus by AGENCY on measuring outputs seems to have resulted in an increase in outputs over recent years.

There are, however, several adverse consequences that AGENCY might experience as a result of its OBPM-in-use. These include the following.

- A greater focus on assessing performance for accountability purposes tends to distract from the need to assess the efficiency and effectiveness of service delivery.
- Restricting performance measurement to outputs may encourage game playing. While the focus on measuring outputs and products may raise the outputs in accordance with the performance standards set, such an increase in the number of outputs delivered may have either limited or negative social significance.
- Delivering complex services requires professionalism, and the task of measuring performance mainly on the basis of quantity tends to ignore the importance of this aspect.
- Too great a focus on measuring efficiency at the expense of assessing effectiveness may inhibit innovation.
- A continued compliance focus on performance measurement is unlikely either to secure the necessary motivation of managers to improve results or to enhance the capacity to provide effective services to the Queensland community.

The following chapter presents the results of a detailed analysis of data collected in the investigation of cost management practices. Findings are drawn and implications of these results are examined. In particular, the next chapter focuses on the analysis of data collected to investigate the extent to which there is support for the theoretical principles developed in Chapter 3. It also analyses the data collected to examine the extent to which the proposed methods of cost accounting are adopted and practiced by AGENCY.

CHAPTER 6 DATA ANALYSIS AND DISCUSSION - PRINCIPLES AND METHODS OF COST ACCOUNTING

6.0 Introduction

This research investigates the application of MAP for achieving public sector OBPM in Queensland under its MFO policy. The previous chapter examined the extent to which there is support for the theoretical principles developed in Chapter 2 and the extent to which the proposed methods of OBPM and performance measurement are adopted and practiced by the Queensland Government agency selected for this research.

This chapter presents the results of a detailed analysis of data collected to further investigate RP-1. In particular, this chapter examines the extent to which there is support for the theoretical principles developed in Chapter 3, namely, CM-1 and CM-2. This chapter also presents the results of data analysis to investigate RP-2 and the extent to which the proposed methods and principles of cost accounting are adopted and practiced by the Queensland Government agency selected for this research. Findings are drawn and implications of these results are examined.

The research problems, RP-1 and RP-2, developed for this study are presented in Table 6-1. The theoretical principles developed in Chapter 3, namely CM-1 and CM-2 are presented in Table 6-2.

RP-1	RP-2
To what extent can contemporary MAP contribute to achieving the objectives of the Queensland Government's " <i>Managing for Outcomes</i> " policy?	In the selected case study, involving one Queensland Government agency, what support can be found for the MAP proposed by this research? To what extent are these proposed MAP adopted and applied in order to achieve the objectives of the " <i>Managing for Outcomes</i> " policy?

Table 6-1 Research Problems developed for this research

As discussed in Chapter 4, a mixed-method approach is adopted to investigate the research problems including the research questions that guided the data collection activities. A combination of document analysis and case study interviews was used

to collect data relating to cost accounting practices. This approach generated qualitative data that contributed to a triangulated analysis.

Documentation relating to policy statements, guidelines, legislation, audit reports, and AGENCY cost reports were analysed for the purposes of gaining knowledge of the Queensland Government’s intended-costing and the costing-in-use at AGENCY.

The case study and interviews also provided evidence as to the support or otherwise within the Queensland public sector for the theoretical principles developed in Chapters 3. The case study and interviews involved one Queensland Government agency (AGENCY), and selected participants from two work units (BUNIT and CENTRAL) were invited to participate.

6.1 Cost Accounting Practices

The theoretical principles developed in Chapter 3 are presented in Table 6-2.

RESEARCH QUESTIONS	THEORETICAL PRINCIPLES
<p>RQ-4 What type of costing information is required to be reported under the MFO policy?</p> <p>RQ-5 Is activity-based costing an appropriate costing model for agencies to use in calculating the cost of its products and services and in assessing the efficiency and effectiveness of service delivery?</p>	<p style="text-align: center;">Cost Accounting Practices (Chapter 3)</p> <p style="text-align: center;">CM-1</p> <p>Public sector agencies are able to determine the cost of service delivery when they apply the following techniques:</p> <ul style="list-style-type: none"> ▪ use of methods to assign direct costs to cost objects; ▪ identification of cost pools and cost drivers for the allocation of indirect costs to different cost objects, including outputs and activities; ▪ employment of contemporary costing methodologies, such as ABC, to improve the accuracy of cost information. <p style="text-align: center;">CM-2</p> <p>Public sector agencies are able to choose amongst alternative courses of action in terms of their costs when they employ techniques associated with measuring cost efficiency and cost effectiveness.</p>

Table 6-2 Theoretical Principles: Cost Accounting Practices

For CM-1 to be supported the researcher would expect to find evidence of the following:

- The role of costing;
- The guidance by the Queensland Government central agencies to line agencies on how to implement cost accounting;
- The level of detail of cost information requiring collection by AGENCY through its work units, BUNIT and CENTRAL; and
- How AGENCY determines the cost of a range of objects including activities and outputs.

In particular the researcher would also expect to find evidence that AGENCY employs costing methodologies that include the use of costing information, cost pools and cost drivers to allocate costs to different cost objects so as to assess the cost of its service delivery.

CM-2 will be supported where evidence indicates that cost efficiency and cost effectiveness techniques are used by AGENCY to assist in the detailed analysis of its service delivery options.

6.2 Evidence in Support of Theoretical Principles

An analysis of documentation from central agencies was undertaken to determine whether there is support for the theoretical principles, CM-1 and CM-2. Documentation analysed included policy statements, guidelines, and legislation relating to cost accounting practices adopted by the Queensland Government, including specifications for the level of detail of cost information required to be collected and reported.

6.2.1 Evidence in Support of Theoretical Principle CM-1

Analysis of documentation produced by central agencies identified that under the MFO policy, Queensland Government agencies are required to collect, monitor and report on the costs of the outputs delivered.

According to policy documents published by the central agency the role of costing is (i) to increase the knowledge of output costs by agencies; (ii) to assist agencies in their internal budget allocations; and (iii) to ensure appropriate resources are available to achieve performance targets (Queensland Treasury, 1998: p 20). In

implementing MFO agencies should have a culture that is focused on delivering cost efficient and cost effective outputs. Agencies should also have a clear understanding of the full accrual cost of delivering their services and be actively managing these costs (Queensland Treasury, 1998: p 34). While Queensland Government budgeting processes centre primarily on monitoring and reporting of output costs, the central agency recommends that an agency’s internal costing information mirror (at a more detailed level) the external reporting arrangements. Costing information required by the Government should be consistent with information agency managers need to assess the effectiveness and efficiency of their services and the quality of resource management (p 29). This can be achieved by the disaggregation of outputs into lower level components such as activities or projects at which accurate costing of these activities or projects can be achieved.

The *Better Practice Guide* published by the Queensland Audit Office (QAO, 2006) advocates the adoption of a costing methodology by agencies that identifies cost drivers of service delivery, allocates agency corporate costs to outputs at the macro level, and identifies the costs associated with activities and projects. In applying ABC as the recommended methodology, the QAO also advises agencies to document the methods they use in apportioning corporate costs to outputs and to periodically assess the underlying assumptions used in calculating costs so as to ensure their continued relevance (p 7). A checklist of key principles (an extract of which is shown in Figure 6-1) to be considered by agencies in adopting costing methodology is provided in these guidelines.

<p>Develop and implement suitable costing methods that accurately identify the cost of delivering key products and services that, collectively, constitute the totality of the output.</p>	✓ Use suitable activity-based costing to effectively identify costs for key activities.
	✓ Document the business rules for allocating indirect costs to projects, programs and outputs.
	✓ Develop rules for aligning projects to programs and then programs to outputs, enabling costs to be tracked at the output level.
	✓ Regularly review the underlying assumptions used for costing to ensure that they are still appropriate for decision-making.
	✓ Have costing procedures signed off by a senior executive.

Figure 6-1 Extract of checklist for costing methodology
(Source: QAO, 2006: p 17)

An output costing framework published by the Treasury Department (Queensland Treasury, 1997) specifies that in determining the total cost of an output, agencies should ensure that total costs relating to the production of an output should be included. In determining total costs of an output “all costs which cannot be traced directly to a cost object should be fully attributed, taking into account the costs and benefits of alternative attribution methods” (Queensland Treasury, 1997: p 1). Whilst the implementation of ABC is not mandatory under this framework, it is recommended as the preferred costing method. This attribution should be carried out “by linking resources to activities and activities to outputs” (p 7).

While it is recognised that the complexity of an agency’s costing system may be reduced by allocating costs at the broad output level, a “detailed ABC system that allocates input costs at the activity level should deliver more reliable output costing” (Queensland Treasury, 1997: p 6). When attributing indirect costs between different cost objects or outputs, an agency may choose from many different calculation bases or techniques. Two bases for calculation include (p 18-19):

- cause-and-effect or cost driver, in which costs that cannot be directly traced to specific outputs are attributed to a cost pool which are then attributed to outputs based on the factors that cause the costs to be incurred.
- pro-rata in which indirect costs are allocated based upon a common denominator such as direct labour hours, direct labour dollars or full time equivalents (FTEs).

While it is acknowledged that a cost-benefit analysis should drive the decision as to which allocation method an agency should use, the policy documents encourage agencies to use activity based approaches. Agencies are encouraged to adopt ABC techniques which look at the underlying cost drivers and allocate costs on the basis of cause-and-effect rather than simple pro-rata allocations (p 26).

A step-by-step procedure for implementing an ABC system is provided to agencies. The procedure specifies four steps and each of these steps are detailed through worked examples in the policy document:

- (i) Define activities.
- (ii) Collect costs by resource or resource cost pool.

- (iii) Allocate resource costs and cost pools to activities.
- (iv) Allocate activity costs to outputs by activity drivers.

These steps, as illustrated in Figure 6-2 are consistent with the theoretical principle CM-1 developed in this research.

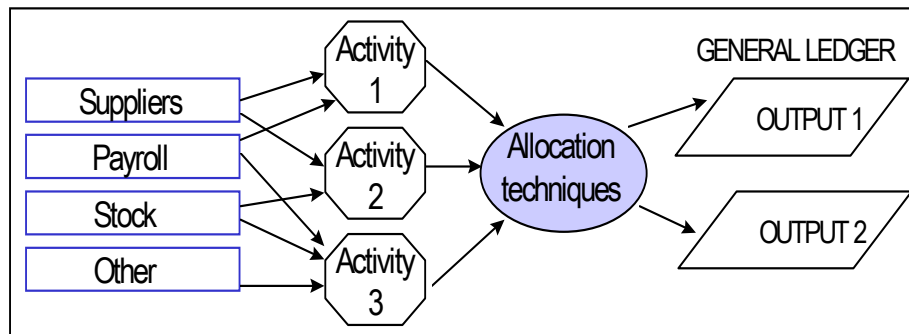


Figure 6-2 Illustrated steps for adopting ABC
 (Source: Queensland Treasury, 1997: p 14)

The Queensland Government’s costing policy document considers several costing techniques, including job costing, standard costing and process costing. However, ABC is considered to be the most accurate costing method. Hence Queensland Government agencies are encouraged to adopt ABC. Agencies are advised that in adopting ABC they should be aware that the cost and difficulty of implementation increase as activities are broken down to lower levels. At the highest level Table 6-3 highlights the shift in focus that is available when outputs are costed on an activity rather than traditional basis (Queensland Treasury, 1997: p 30).

Example Budget for Output 1 - User Licensing			
Traditional costing		Activity Based Costing	
	\$'000		\$'000
Wages and salaries	1,335	Issue new licences	580
On-costs	110	Renew licences	800
Direct Materials	350	Licence inspections	355
Occupancy costs	160	Investigate complaints	190
Computer costs	40	Assist in policy development	80
Share of admin. overheads	<u>120</u>	Assist other departments	<u>110</u>
TOTAL	<u>2,115</u>		<u>2,115</u>

Table 6-3 Distinction between Traditional and ABC Costing
 (Source: Queensland Treasury, 1997: p 30)

Through this analysis of central agency documentation, including guidelines and policy documents, the researcher gained support for theoretical principle, CM-1, developed in this research. This analysis also provided guidance to the researcher in the refinement of interview questions posed to participants from the case study.

6.2.2 Evidence in Support of Theoretical Principle CM-2

It is through the Queensland Government's budgeting process that consideration is given to the level of investment to be made in agencies to ensure they have the capacity to deliver the specified outputs in a cost effective manner (Queensland Treasury, 1998: p 1). In cases where an agency's output delivery is below standard or where analysis indicates that improvements in service delivery is warranted the State's budgeting process allows for in-depth output evaluations. These evaluations would examine those factors that inhibit efficient and/or effective service delivery (Queensland Treasury, 1998: p 12).

The MFO policy requires agencies to collect, monitor and report performance information, including costs that is consistent with information agency managers need to assess the effectiveness and efficiency of their services and the quality of resource management. Such assessments are undertaken by monitoring end of year operating statements, statements of financial position and output performance statements over time. The MFO policy directs agencies to be "able to assess whether output efficiency is improving, whether resources are being effectively managed and whether an agency's net worth is being maintained, increased or decreased" (Queensland Treasury, 1998: p 29).

It would appear that the assessment of agencies performance is largely from the viewpoint of financial accounting in that the focus of the information sought from agencies is that which is related to the net cost of services and state of affairs of an agency for a given period. A financial accounting system is designed to provide full-cost estimates that comply with generally accepted accounting principles. In contrast, management accounting serves to provide information concerning costs across different dimensions that are useful in supporting internal management decisions (Bromwich, 1988; Geiger, 1998; Cooper & Slagmulder, 1998). There is no legislative requirement for agencies to provide costing information across any other dimension other than at the aggregate level of outputs. While agencies are urged to develop cost efficiency and cost effectiveness measures the requirement is for these measures to be established at the output and outcome level only. For example, an agency which is responsible for the network of roads may select measures such as those shown in Figure 6-3.

Cost Efficiency (cost:quantity)	cost of program per capita <u>Has the cost per capita fallen over time?</u>
Cost Effectiveness (cost:outcome)	cost in relation to reduction in road fatalities <u>Have the results improved as costs have increased?</u>
Cost Efficiency	Cost per km
Cost Effectiveness	Cost in relation to improvement in: Economic prosperity

Figure 6-3 Example of Cost Efficiency and Cost Effectiveness Measures
(Source: Queensland Treasury, 2003)

Agencies can meet this requirement through their financial reporting. There is no imperative for agencies to develop sophisticated costing systems in order to meet this legislative requirement.

Having said this, further guidance is found in the costing guidelines produced by the central agency. Agencies are advised that they should understand the impact on costs of changes to the mix and specifications of outputs being purchased. Agencies are advised to gain an understanding of (Queensland Treasury, 1997: p 8):

- the cost behaviours of outputs so as to identify inefficiencies and take steps to improve the value or reduce the cost of their agency outputs;
- the factors which drive the costs (i.e. cost drivers) in their service production and identify options for reducing input costs by using alternative production processes

The costing guidelines advocate that agencies will benefit from the use of an ABC system in the following ways (Queensland Treasury, 1997: p 31):

- Agencies would have a more detailed understanding of the factors which drive their product or service costs and hence be better placed to identify opportunities for driving efficiencies. For example, the collective cost of a particular output may appear to represent value for money, but a component activity may be overpriced. Implementation of best practice for that component activity may lower total output costs.

- Better knowledge of the resources consumed at activity level and their relative cost may alert agency managers to opportunities for business process re-engineering.
- Activities can be analysed by the cost and effectiveness in adding value. Value adding activities are those that, if excluded, will negatively affect the quality of the output. Once identified and costed, non-value adding activities can be more carefully managed or eliminated.

Further government efforts to ensure agencies improved the efficiency and effectiveness of their services is evidenced through the commencement of the Aligning Services and Priorities (ASAP) program which commenced in 2001 and continued throughout 2002-03. ASAP was established by the Government to review its operations and ensure that services provided by agencies are aligned with the priorities the Government seeks to achieve for the community. Through the ASAP process the Queensland Government committed to comprehensively examine all Government services and activities, including cross-agency activities and processes. Under the ASAP process agencies were required to:

- Segment each output into major activities;
- Map the relationships between agency activities, outputs, agency outcomes, and whole-of-government outcomes;
- Provide a snapshot of each activity covering issues such as service utilisation and demand pressures, emerging trends for the medium term, cost drivers and resource issues and performance management framework, measures and targets.

The primary objectives of ASAP were to identify opportunities to realign activities and resources to improve efficiency and to ensure that Government outcomes are effectively achieved (State Budget 2002-03; Budget Strategy and Outlook; Budget Paper no 2). The major focus of this ASAP program, however, was a review of cross-agency functions rather than activities of individual agencies. This review instigated a shared services arrangement for agencies in order to gain leverage in terms of economies of scale and economies of skill in the processing and delivery of common corporate functions across Government agencies. While the Government's concentration remains on cross-agency activities and functions it would seem that

individual agencies are not likely to have incentives to adopt sophisticated costing systems. Agencies have the option to simply comply with the legislation and collect, monitor and report costs at the output level only.

While the guidelines and policy documents recommend the use of ABC to gain a fuller understanding of costs across a number of dimensions, the uptake of ABC is not mandatory. The Queensland Government simply requires the use of costing method(s) that accurately state the total cost by output. Furthermore these guidelines acknowledge that agencies must recognise that whilst a full ABC implementation may be an ultimate ideal goal, it requires major system and cultural changes and is not something that should be rushed (Queensland Treasury, 1997: p 26). In fact, agencies are advised not to adopt ABC in cases where (p 26):

- the value of costs that cannot be traced directly to outputs is small; or
- the benefits of understanding activity based performance would not outweigh the costs; or
- the internal time and resources are not currently available to succeed in its implementation; or
- senior management is not committed to the process; and
- using alternative costing or allocation methods would not lead to a material misstatement of the total cost of each output.

6.3 Evidence of Adoption of Proposed Cost Accounting Practices

To seek evidence of the extent to which AGENCY adopts and applies the proposed cost accounting practices, the researcher applied the following mixed-method approach:

- Analysis of AGENCY documentation; and
- Interviews with case study participants from two work units, BUNIT and CENTRAL.

6.3.1 Adoption of Theoretical Principle, CM-1

Prior to conducting interviews with the case study participants from BUNIT and CENTRAL, the interviewer asked whether they had a copy of cost reports that could

be examined to help focus the interview. Participants from CENTRAL indicated that they do not use cost data to evaluate the performance of CENTRAL, but rather to evaluate the performance of SDCs, such as BUNIT, and the AGENCY as a whole.

An analysis of AGENCY cost reports, as shown in Figure 6-4, identifies the types of costing information used by AGENCY and by its work units.

EFFICIENCY								
Item	As at 30/06/06	2006-07			Variances from			
		Target	Actual	%	2005-06		Target	
					#	%	#	%
Labour cost % of Revenue			n/a					
Gross Cost/AHD								
Productivity AHDs/Total FTE								
Productivity AHD/SDC FTE								
Productivity AHD/Admin FTE								
HISTORY AVERAGE ANNUAL FTE								
2001-02 EOY	2002-03 EOY	2003-04 EOY	2004-05 EOY	2005-06 EOY	2006-07 Target	2006-07 Actual	% Variance of Target (as above)	
							#	%
Paid FTEs (excluding leave without pay) averaged over the number of pay fortnights to date.								
EFFECTIVENESS								
Item	As at 30/06/06	2006-07			Variances from			
		Target	Actual	%	2005-06		Target	
					#	%	#	%
% Programs completed (all funds)								
\$/client								
\$/# clients successfully completed programs								
No. Work Cover Claims								
Cost of Work Cover claims								
Unscheduled Absenteeism (updated quarterly)								

Figure 6-4 AGENCY Sample Cost Reports

As shown in Figure 6-4, cost information reported by CENTRAL to the executive management of AGENCY is largely on the basis of output performance. CENTRAL includes in these reports cost measures classified as efficiency and effectiveness. Cost efficiency measures which are reported at aggregate levels include:

- labour cost as a percentage of revenue;
- gross cost per annual hours of delivery;

- productivity in terms of annual hours of delivery per total number of full-time equivalents; and
- productivity in terms of annual hours of delivery per SDC full-time equivalents.

Measures classified as cost effectiveness measures include those such as the percentage of programs completed across all funding sources; and cost per the number of participants who successfully completed programs. It is obvious, however, that these measures of cost effectiveness, as reported by CENTRAL, are output-oriented rather than outcome-oriented as defined in Chapter 3. Once again these measures are reported at the aggregated level of output only. Cost measures associated with the activities undertaken by AGENCY are not reported.

Annual performance agreements between BUNIT and CENTRAL, as shown in Figure 6-5, requires BUNIT to report regularly against performance and cost targets. Targets against which BUNIT must report include measures of cost efficiency, such as:

- the gross cost per annual hours of program delivered;
- the total annual hours of program delivered per the total number of full-time equivalents; and
- asset utilisation rates.

Effectiveness measures against which BUNIT must report concentrates on the total cost per the number of successful clients; and satisfaction rate. Once again this information is output-oriented and is reported at the aggregate level of output. There is no evidence to suggest that BUNIT is required to collect or report on costs associated with key activities it undertakes in order to deliver outputs or products and services to its clients.

2006-07 'Owner' Performance Agreement BUNIT							
Item		Revenue \$\$	AHDs	Client Nos	Expenses		\$\$
*Total					*Total		
Revenue general					Employee Expenses		
Commercial					ICT infrastructure		
Other							
Efficiency				Effectiveness			
		Target	Best SDC			Target	Best SDC
Labour cost % of revenue				Program Completion rate			
Gross Cost/AHD				\$/Unique client			
Productivity - AHD/Total FTE				\$/Successful client			
Asset Utilisation - \$Invested capital/AHD				Satisfaction – community organisations			
				Satisfaction - clients			
				ICT fleet within approved asset life			
				Staff wellness			
				- No Work Cover claims			
				- Cost of Work Cover claims			
				- Unscheduled Absenteeism		XX days / FTE	XX days / FTE
AVERAGE ANNUAL FTE							

Figure 6-5 Sample Performance Agreement - BUNIT

In addition to the report it submits to CENTRAL on costing information, BUNIT also compiles its own internal cost report. This internal cost report is produced for each directorate or business unit of BUNIT. A review of BUNIT's internal cost report, as shown in Figure 6-6, indicates that cost information is limited to the output and product or service level. Once again, it is evident that costing information is not collected at levels of activity or process.

BUNIT COST REPORT									
as at dd/mm/yyyy									
DIRECTORATE		DIRECTORATE A							
BUSINESS UNIT	ACTIVITY	REVENUE/ EXPENSE	COST ELEMENT DESCRIPTION	BASE PLAN	ANNUAL PLAN	YTD PLAN	ACTUAL	COMMITTED	VARIANCE
Business Unit A	Program 1	Total Revenue General	aaaaaaaaaaaa	\$	\$	\$	\$	\$	\$
		aaaa		xxx	xxx	xxx	xxx	xxx	xxx
		Total Commercial		xxx	xxx	xxx	xxx	xxx	xxx
		aaaa		xxx	xxx	xxx	xxx	xxx	xxx
		TOTAL REVENUE		xxx	xxx	xxx	xxx	xxx	xxx
		Total Employee Expenses		xxx	xxx	xxx	xxx	xxx	xxx
		aaaa		xxx	xxx	xxx	xxx	xxx	xxx
	Total Supply and Services	xxx		xxx	xxx	xxx	xxx	xxx	
	aaaa	xxx		xxx	xxx	xxx	xxx	xxx	
	Total ICT Infrastructure	xxx		xxx	xxx	xxx	xxx	xxx	
	aaaa	xxx		xxx	xxx	xxx	xxx	xxx	
	Total Infrastructure M'tce	xxx		xxx	xxx	xxx	xxx	xxx	
	aaaa	xxx		xxx	xxx	xxx	xxx	xxx	
	TOTAL EXPENSES	xxx		xxx	xxx	xxx	xxx	xxx	
Program 2	Total Revenue General	xxx	xxx	xxx	xxx	xxx	xxx		
	Total Commercial	xxx	xxx	xxx	xxx	xxx	xxx		
	TOTAL REVENUE	xxx	xxx	xxx	xxx	xxx	xxx		
	Total Employee Expenses	xxx	xxx	xxx	xxx	xxx	xxx		
	Total Supply and Services	xxx	xxx	xxx	xxx	xxx	xxx		
	Total ICT Infrastructure	xxx	xxx	xxx	xxx	xxx	xxx		
	Total Infrastructure M'tce	xxx	xxx	xxx	xxx	xxx	xxx		
TOTAL EXPENSES	xxx	xxx	xxx	xxx	xxx	xxx			

Figure 6-6 BUNIT Internal Cost Report

The ability of AGENCY to report on costs associated with activities or projects is dependent on the processes used by the agency for gathering costing information. The process used by AGENCY should include the identification of cost objects for which costs are attributed. The researcher would expect that if theoretical principle, CM-1 is adopted AGENCY would have “different views of costs that it wants to measure” (Geiger, 1999a: p 47). Such views would include costs of outputs, costs of activities, costs of projects, and the like. An examination of AGENCY’s cost accounting system reveals that the only view on which AGENCY collects costs is a functional or departmental view. The design of AGENCY’s costing system is shown in Figure 6-7. It is evident to the researcher that AGENCY uses no other approach to collecting and reporting costs other than a functional view. Hence it will have difficulty in measuring costs associated with its activities. With AGENCY producing only one output, AGENCY is capable of satisfying its legislative requirement to measure and report the total costs of output.

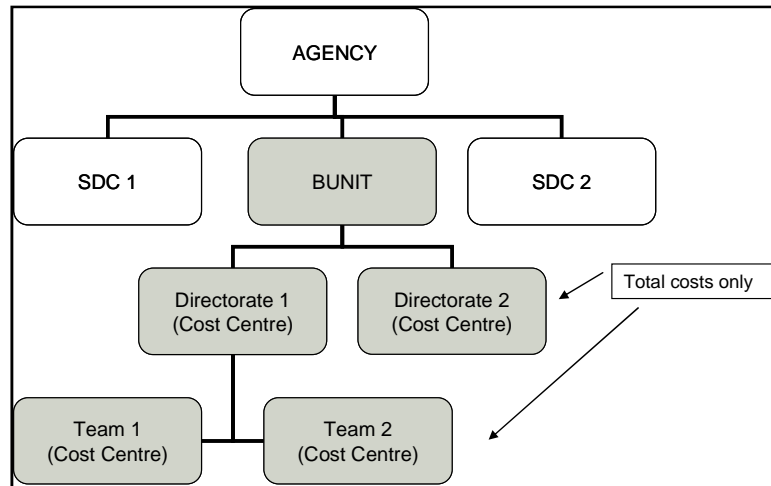


Figure 6-7 Cost Ledger Structure of AGENCY
(adapted from AGENCY Finance 2000 project)

As evident from Figure 6-7 it is clear that AGENCY has designed cost elements that typically correspond to the general ledger accounts that align with its need to report externally on its financial performance. There is no evidence from AGENCY’s documentation to suggest that AGENCY has developed various cost pools for the purpose of attributing indirect costs.

The interviewer posed a series of interview questions to case study participants seeking their opinions of their currently implemented cost accounting practices. If theoretical principle CM-1 is adopted, the researcher would expect interviewees to report that AGENCY collected costing information on different dimensions and at varying levels of detail.

Interviewees were asked to identify the “*types of cost objects*” they use to collect and measure costs. Most interviewees reported that costs are not reported for activities simply because there are too many activities that require costing. An interviewee indicated that cost of activities is reported “*in a broad sense, [for] the different programs that they have.*” Probing this response suggested that costs are reported for product or service. The reason provided for a lack of costing on any other dimension of costs was that CENTRAL was not able to perform any other slice of costs. One interviewee from CENTRAL offered the comment that “*it’s very hard to measure the cost of delivery at a program level because the systems are not set up for it.*”

Responses relating to what BUNIT considers the most important and least important cost objects suggested a lack of understanding of costing principles amongst the managers of this work unit. The typical responses by BUNIT provide some evidence of a strong focus on line item expenditure as follows:

- *Overheads*
- *Stationary*
- *Facilities*
- *Salaries*

To probe for greater clarity in responses, interviewees were asked what they considered more important: “*managing your budget allocation or monitoring the costs of your deliverables; line expenditure items or costs of objects.*” Responses from BUNIT were mixed with approximately half of the interviewees indicating that the budget and line expenditure items were more important, with the remaining noting that the monitoring of costs of delivering and the cost objects were more important. When queried about their views, one interviewee offered the following opinion:

When your budget is stretched to the limit you start looking at the delivery costs. The budget allocation doesn't always cover what is happening.

There has to be a balance. It depends how you want to run your business – whether you want to run it as a commercial business or a community service. You need to know if you're making a profit.

While another interviewee commented:

Managing budget allocation [is more important] because that's what we're actually measured on. For example, you go to a mid-year review with the department and the focus will be totally on the output side and the expenditure. Line item expenditure [is important] because that relates to the whole budget.

When asked for opinions on the dimensions and levels at which cost information should be collected, one CENTRAL interviewee responded as follows:

It is very difficult. Firstly, there is no accepted delivery model for our [SDCs]. There are multiple pathways of achieving the same outcome and they all have different cost implications and so setting a generic price that is reflective of cost is near impossible. And [the SDC] is further complicated by the fact that all different types of costs are all included in the one model. There is the cost of keeping your doors open, there are the administrative compliance costs of running a [SDC] and all the inefficiencies that creep in of being a government agency. There is motivation to break down those different costing down but it's in 3 separate areas of the agency. They are working on [SDC] specific costing models, one of which is informing hopefully a new purchasing model. But the way their financial accounts are it becomes very, very difficult. Every [SDC] has approached their cost accounting slightly differently. They have apportioned the same costs in different ways. So you end up with data that can't be compared.

Interviewee responses provide evidence that the costing information is largely gathered from general ledger accounts rather than translating this raw financial accounting data into cost elements of different types and of greater detail. Stronger evidence of this methodology is supported by a CENTRAL interviewees' comment that costs are determined by using "*the operating results*" and that costing information is collected from "*line items*". Comments such as these are clear evidence that costing techniques are pushed into the background while the financial accounting requirements underpinning the legislation take forefront.

With this being the case, the interviewer sought evidence as to whether the work units collected costs for their units' purposes. Interviewees were asked "***how the work units get costing information on different dimensions of costs***". Typical responses from BUNIT participants include:

The line items

I would have to think about that – how I would drill down to costs.

[long pause] I don't think we can

The only real cost level we go to is the team level. There's not much more than that

“The costing is done at a high level but it is not unpacked at a lower level.”

The typical response from CENTRAL is represented by the following comment:

We just add up the total budget from the operating budget and divide by the number of hours, for example, that is delivered and cost goes down to [BUNIT] level

Without doubt, evidence suggests a strong focus by BUNIT and CENTRAL on expenditure. This tendency is also reported by other studies of the public sector (Wang & Gianakis, 1999; Chenhall & Langfield-Smith, 1999; O'Toole & Stipak, 2002), which are characterised by highly aggregated financial measures that rely primarily on information from the financial accounting system. This suggests that AGENCY will experience difficulty in reporting costs at the level of detail required to make assessments of the most cost efficient ways of delivering its products or services or its activities (Geiger, 1999a: p 48) and as such is likely to reduce the relevance of cost information to users “since multiple activities would be measured together” (Pizzarella, 2004: p 641).

The interviewer posed a question to interviewees asking them to consider whether measuring “*the costs of activities are more important than measuring the cost of outputs*”. A senior manager from BUNIT responded:

Cost of outputs – at the end of the day that is what is important and it is more important than activities

The typical opinion held by interviewees from CENTRAL is represented by the comment:

Probably at the macro level it is a reasonable thing to do – because all the inaccuracies are swallowed up in the bottom line. Comparing [SDCs] on a cost basis is probably fair. But comparing some things on a cost basis is unfair because of the number of issues that they don't have control of

Once again, the evidence points to the practice by AGENCY on using aggregated financial information to measure the total cost of outputs. Once again, it soon became obvious that a compliance-focus approach to costing is adopted by AGENCY.

As the interviewer probed for further information concerning costing methods one senior manager from CENTRAL noted an interesting point, that is, AGENCY maintains a database of the various costs of service delivery by the various SDCs. Referred to as Cost of Efficient Service Delivery Project (CESD), the interviewer was advised that

We can go down to a lower level if we have CESD (our cost of service delivery) data. There is the CESD in which [BUNIT] puts in their data and there is a set of definitions for the different kinds of costs.

This CENTRAL manager revealed that AGENCY employs a somewhat simple ABC system. Discussions with this manager noted that this system, however, is not integrated with AGENCY's accounting system. The interviewer was advised that while BUNIT "puts in their data" according to "a set of definitions for the different kinds of costs", these costs are "usually at a high level" in regard to the defined activities. Defined activities include those such as delivering support services, providing infrastructure, corporate governance, and delivery of client programs. Each of these activities is defined at a high level. While there was confirmation from another interviewee from CENTRAL that this system is currently being used, it was commented that the accuracy of the costing information entered into the system by BUNIT is "questionable" given the view that "the assumptions that are being built into [this] model are generally being supported as strategies only" rather than costs in particular.

While it was pointed out by CENTRAL that this costing model is:

“based on [BUNIT’s] data [and as such] it is hard for them to argue”.

CENTRAL is also of the opinion that:

“[BUNIT] is likely to always reserve their opinion until they see if they are better or worse off. If they are worse off they won’t support it. If they are better off they will.”

The CENTRAL interviewee offered that there were apparent low levels of commitment by BUNIT indicating that:

“it is easy to get agreement for high level topics but once it starts to creep into the operations level that’s when it all falls apart.”

Following discussions with CENTRAL about its CESD it soon became apparent that the costing model was indeed used to allocate direct costs to high level activities carried out by the agency. For example, salaries paid by BUNIT which are processed and recorded in the general ledger and allocated to the various activities in accordance with the number and type of employee actually working on that activity. As further probing questions were asked by the interviewer, it soon became apparent that the CESD system was a tool by which AGENCY could post direct cost only to these high level activities. As such it soon appeared to the researcher that the CESD was not a simple ABC system.

To be certain that the researcher’s judgement is correct with respects to the purpose of the CESD, the interviewer returned to CENTRAL for a follow up interview so as to seek responses on how AGENCY attributes indirect costs. As specified by Queensland Treasury (1998: p 7), the costs of outputs should include all costs including direct costs and indirect costs. Interviewee responses suggest that AGENCY does not apply a methodology for attributing indirect costs at any level below the output level of the agency. This is supported by typical comments from CENTRAL indicating that indirect costs incurred by the corporate office are:

“not distributed out to the [SDCs]” and that

“costs of programs are just the [SDCs] base cost – they don’t include the costs of [CENTRAL]”.

The typical response from BUNIT managers was:

We don’t really allocate indirect costs. The teams are only charged for direct delivery costs. Fee for service programs are charged a fixed percentage allocation.

There is no clarification or clear direction how they allocate these costs. We get a bucket of money.

I don’t think so (laughs) I don’t think they have any idea about indirect costs (very sarcastic)

Clearly, these responses all point to the fact that AGENCY does not employ an ABC system to determine the cost of activities. To explore whether there might be some potential for the agency to consider this sometime in the near future, the interviewer asked for opinions on whether simple techniques such as percentage allocations or survey-of-time-spent techniques to decide on the allocation formulas might be useful responses from BUNIT managers were:

We have an overhead that is predetermined. As ridiculous as it sounds BUNIT overheads I take for granted and just go well “that’s not going to change”. They’re not going to so let’s just Other people whinge and carry on about the 50% .. but...heh

No – you can’t. The delivery of our products and services is very complex

They can be unfair because different programs cost more than other programs – so percentage allocations are unfair.

I don't believe we actually allocate costs on a needs basis. It's not looking at what the main activity would be and attributing the costs to that activity. That's a weakness. I think it's based on a macro level looking at our budget and what our activities are, and looking at the cost of different [SDCs]

Indirect costs such as overheads are very, very poorly allocated by our agency but particularly by this [SDC]. At this [SDC] it is still done by percentage basis of outputs. All it does is actually damage the chances of what services we should be minimising based on cost.

One operational manager from BUNIT offered the following comment:

in the past we were located in the city and was in a partnership between [BUNIT] and another[SDC] and we had to incur the cost of the rent and cleaning which came out of our budget - which was kind of fair enough. But on top of that we had to also pay BUNIT \$1.5 million in overhead costs. If we had a choice not to run with that and we could get it somewhere at a cheaper rate and a much more efficient rate it would be much better. We were charged for services that we didn't use and would never use.

Another manager from BUNIT commented:

In identifying possible strengths or weaknesses in the way AGENCY calculates its costs, one interviewee from BUNIT explained a possible impact under the current way in which overheads are attributed:

I'm certainly aware that there are overhead costs that need to be covered. That allocation process is what actually drives behaviours of our [unit] directors. So if we had incentive based overheads where they can be a little more innovative in their approach and they can reduce their overhead costs it could drive their behaviour a different way. If you were a smart [unit] director

and knowing our current system you could actually deliver less outputs pay less overhead and get paid the whole.

Reasons offered by several interviewees for not allocating indirect costs are that:

“in the past we worked out cost drivers, but the time spent to do that wasn’t considered worth it. You can never ever get agreement on how to allocate indirect costs. You spend half your time debating and arguing.”

I would actually be looking at each part of that area, separately each part of the corporate services area and that direct cost area and breaking that cost down into actual expenditure and actually driving them to that budget and then allocating at a formula model where teams are actually purchasing that service. It would take a hell of a lot to do that. Because it’s not measured by the department how much effort are you going to put into it.

Evidence from AGENCY’s two work units provide a clear indication that not only does the agency not use ABC as a costing methodology to determine the costs of outputs or activities, but the agency has placed significant barriers that will ultimately compromise any efforts to adopt ABC,

6.3.2 Adoption of Theoretical Principle CM-2

Interviewees were asked whether they thought that the costing techniques they use have assisted them in *“evaluating the efficiency and effectiveness of their service delivery”*.

One interviewee from BUNIT reported that in terms of evaluating their business that:

[It is] hard to analyse your business if you don’t have the right information. Very difficult..... heh. UmI suppose because of those overhead costs We tend to be creative! (laughing)

While others commented:

I'm constantly discussing that with staff who are still live in the old world where quality is about the number of hours you deliver and that you offer all of these wonderful things. But it's just not cost effective. Programs have closed down for that very reason. You just don't make money out of it.

They don't understand that ... they just think that we're a public provider and that a public provider provides good services and it doesn't matter what it costs.

Particularly if we have projects I like to do a bit of profit and loss to see how we're tracking...because in some areas client contact hours doesn't always equate to..... like you can be achieving fine in contact hours but the return on the dollars is not very good.

Our efficiency is ... well we might be able to reduce the amount of delivery we do – clients come in with different requirements.

There are times – not a lot- when people take it from the dollars and cents and not the real value of the outcomes. It is at those times when you need to be a bit challenging of the practices. It's not a one-fit all. I mean sometimes I say “I know what you're saying, but I need to run my program this way”.

It helps me make decisions about the operations of the Directorate. If we want to choose between this or this – these help evaluate the costs of doing it and the effectiveness of it.

CENTRAL reported that

“the performance indicators they use are in two categories: efficiency and effectiveness. The effectiveness is the outcomes achieved, that is, completions.”

It was reported that CENTRAL

“does not measure cost of effectiveness. Costs are measured on efficiency basis only, [that is] productivity and hours per FTE.”

In evaluating the efficiency of BUNIT, one interviewee from CENTRAL offered the following example. Where BUNIT is measured on their employee expenses to revenue percentage:

[BUNIT] has a target which is the same for every [SDC] and it is monitored monthly. If they are up around 70% then we say there is something wrong here. We say to them that they either have to increase their revenue or decrease their employee expenses to come back to target.

While most interviewees from BUNIT recognised this *“as a constant tension they face”* in which they often have to assess *“whether they might be able to reduce the amount of delivery they do”* in order to *“achieve quality”*, one interviewee indicated that efficiency is considered *“in terms of hours against expenditure.”*

CENTRAL appeared confident in their responses, with one interviewee indicating that they are

“[We are] constantly measuring [BUNIT’s] efficiency.” [SDCs] are “placed on a league ladder from the most efficient to the least efficient.”

Another interviewee from CENTRAL commented:

I use comparisons with last year. Cost reduction is the result of maximising the process. Costs haven’t increased that much but their outputs has improved significantly.

Our agency has dramatically improved our cost of delivery. But some of that may have to do with so much demand for our services which has actually driven our staff to take on more activity. I mean

the only way we can gain efficiencies really in our [SDCs] is opportunities in our actual hours per FTE. We don't yet have better operational control, but we will have.

Having drawn an earlier conclusion that AGENCY does not employ a costing methodology such as ABC, it is difficult to see reason in AGENCY's argument that it has dramatically improved their cost of delivery. It may more be the case that AGENCY's total expenditure as a whole has been reduced while at the same time contact hours of clients has increased, that is, a "more for less" budgetary constraint. Efforts to delve into the types of services, products or outputs that have achieved a lower cost were not successful. The researcher suggests that such extolment is largely rhetoric rather than anything real based on sound costing information.

Data provided by an ABC model should inform AGENCY on the resources used by the various activities undertaken to deliver outputs. As suggested by Cooper & Slagmulder (2000a), an ABC system should not only assist AGENCY in identifying the cost of activities but should also assist it in identifying efficient ways to perform them. However, there is some doubt that the employment of any ABC model at such aggregated level of activities would prove useful to BUNIT. Differences in costs amongst SDCs are likely to be the result of differences in accounting practices rather than through differences in the process of service delivery. It is the difference in the process of service delivery that AGENCY should consider so that informed judgements may be made about efficiency and effectiveness.

BUNIT's service delivery options involve quite complex interactions with its clients with each type of interaction likely to have different cost implications. Determining costs at high levels has the advantage of ignoring the complexities in activities. The risk to AGENCY, however, is that, as de Bruijn (2002) suggests, it may not motivate the managers of BUNIT to be innovative in the search for more efficient and effective ways of delivering its services. With this being the case it is not surprising that some doubt exists as to the level of commitment by BUNIT to developing this system. Apparent low levels of commitment are indicated by the comment from CENTRAL that

“it is easy to get agreement for high level topics but once it starts to creep into the operations level that’s when it all falls apart.”

This was confirmed by the comments from a senior BUNIT manager:

I don’t think there is a sense of ownership there that there should be.

The small selection of cost measures of effectiveness is likely to limit AGENCY’s ability to choose amongst alternative courses of actions in terms of their costs and their effectiveness in the attainment of government outcomes. AGENCY should develop measures that relate cost to departmental outcomes. AGENCY should also develop measures that relate cost to a more detailed level of its activities in order to make informed judgements about its product mix and the efficiency with which its activities and outputs are delivered.

While the budget monitoring techniques are important for overall cost control by ensuring that costs remain within budget, they do not support many types of decisions such as the most appropriate service delivery options. The QAO (2005b: p 3) found from its recent audit of Queensland Government agencies’ performance management systems that “a more detailed costing approach at the activity level would enable departments to better assess the efficiency of their operations and the cost effectiveness of service delivery”. It is probable that, as Behn (2002) notes, an appropriate organisational culture that is necessary to enable the critical assessment of service cost and quality may not exist. As implied by Gianakis (2002), public sector agencies are rarely in a position to report what the cost of a particular service is, largely because they are not required to do so.

It is unlikely that the costing information collected by AGENCY’s work units will reflect the full range of information needs of management operating within the Queensland Government’s MFO policy. It is apparent that AGENCY does not currently determine the cost of service delivery in a way that enables it to assess appropriately the most cost efficient or cost effective means of delivery. This is despite the comments by interviewees, particularly those from BUNIT, that such detail is required if they are to know the cost at which their programs are delivered.

For it to improve its cost management techniques it is essential for AGENCY to gain a better understanding of the needs of management prior to proceeding with the task of improving the measurement of costs.

The implication of AGENCY's costing-in-use is that the bases for decision making is largely for the purposes of budget monitoring rather than as a result of rigorous evaluations of service delivery options.

6.3.3 Perceptions of Costing-in-Use

The adoption and application of cost accounting is a necessary consideration in the efficient and effective delivery of an agency's services. In adopting and applying cost accounting practices agencies rely on the quality and accuracy of their costing information. As suggested by Kelly (2002 available on <http://home.xnet.com/~jkelley/Publications/Costing.fldr>), any inaccuracies in costing information will reflect the processes used for gathering costing information and for choosing those items for which costs are sought. The IFAC (2000: p 18) warns that inaccuracies will be evident in cases where the basis for allocating costs is done on a general basis.

The interviewer enquired as to *“the degree to which interviewees believe that costing information they receive is sufficiently correct”*. Interviewees were also asked *“whether they rely on the costing information”* and what *“their level of confidence might be”*.

Generally, interviewees from BUNIT indicated that inaccuracies in costing information are common. Typical responses from BUNIT were:

Simply because we work on those percentage bases they don't reflect the true costs at all. We don't know till the end of the financial year whether the percentages are correct or not

It would be nice if it was accurate and not have to keep a separate set of books.

I don't know that we need more than what we've got. We don't need anyone to actually verify that it's accurate

CENTRAL, on the other hand, reported that the information was sufficiently correct because they “*only looked at the total*”. Typical responses were:

It doesn't make a whole lot of difference because [we] look at the total. It all ends up in the right place.

The chart of accounts is fairly specific. If you go down to the lowest level you'll find anomalies but it doesn't concern me. We look at the total.

At the moment [I] don't drill down unless there is an issue. I only rely on it at the high level. [We would need to] improve the accuracy of data entry [to do otherwise].

When asked whether the costing information is “*easily available on a regular and timely basis*” typical responses from BUNIT are:

The line expenditure items are available, depending on what [they] do. Material costs and HR costs are available on a regular basis. Efficiency in costing and where [they]'re at is clearly not as available.

It is available, but the meaningfulness is debatable.

I have access but there's not much credibility on the financial side.

[long pause] *costing comes from our payroll reports and HR and I get them from finance. It's collected through finance.*

Interviewees from CENTRAL considered:

We can grab the data from the central system. It's exactly the same information that [SDCs] have. It's all the one information. We have a web-based system. All [SDCs] have access to it

We would like it to be a bit quicker than when we get it. It all depends on how quickly [BUNIT] process their data – they are very slow. But generally, monthly is fine

The above comments are not surprising, particularly given the lack of an appropriate costing system. The researcher purports that where there is no effective costing tool employed by the agency, then one should not be at all surprised if managers perceive any information reported at disaggregated forms to be inaccurate and of poor quality. Likewise, it is not surprising that CENTRAL, which is only interested in the total costs of the agency as a whole, would have no concerns for the accuracy or otherwise of the detail contained since it has no relevance.

This finding was made by the QAO (2005b: p 3) where it notes that “at the majority of the departments reviewed, costing was limited to the allocation of direct costs and corporate overheads across the department’s outputs”. According to the Government’s costing policy, “the purpose of costing outputs is to estimate the funds required through the State Budget process” (Queensland Treasury, 1998: p 25). The implication of this is that the costing approach adopted by AGENCY is one that is more likely to be based on its needs to secure sufficient resource allocations through budgeting processes of the Government. This implication was identified by one interviewee from CENTRAL who reported that:

“there have been numerous attempts to come up with resource allocation models but in the end you get resources from the government – we have the model there but we get the budget and we have to decide how we’re going to use it.”

Hence it is not surprising to the interviewer that when she queried interviewees as to whether managers are held accountable more for blow-outs in budget or blow-out in costs of service delivery, interviewees generally responded that BUNIT gets “*a bucket of money*” and as such they are “*more accountable for blow out in budget*”. This implies that the primary focus of AGENCY is on the budget allocation until and unless further investigations are warranted. This implication supports that which is reported by Moynihan (2005).

6.4 Implications of Costing-in-use for AGENCY

This chapter details the costing accounting practices that AGENCY currently adopts. These practices have certain advantages for AGENCY. At the same time, however, AGENCY may experience several adverse effects from its costing-in-use that it should be aware of before it attempts to enhance these practices.

Positive effects exist as a result of AGENCY's costing-in-use. These are addressed below.

1. The allocation of only direct costs to BUNIT has the significant advantage of attributing only those costs directly within BUNIT's managerial control. As suggested by Bourget (2003: p EST 15-2), this approach is a down-top approach where BUNIT must explain their results to CENTRAL, who in turn explains them to the executive management of AGENCY. Thus BUNIT's results are best interpreted and explained by those who are best informed.
2. The totalling of costs by AGENCY removes the complexities associated with costing for multiple activities. As pointed out by Pizzarella (2004), the technique is simple as it removes the difficulties associated with trying to reach agreement amongst SDCs as to what to include and exclude from the cost data. Furthermore, as AGENCY is required to report externally on its performance, some level of managerial control is exercised by it over the accuracy of the data since "variations in account classifications are neutralised" (Pizzarella, 2004: p 645).
3. In establishing broad high definitions of services, CENTRAL's application of the ABC model eliminates situations where there may be complex interactions between the provider and the recipient of the service. As a result it is likely to be more successful in its efforts to measure costs across multiple disparate activities. Mullins and Zorn (1999 in Pizzarella 2004: p 640 & 648) suggests that ABC is "most suitable for standardised products which possess precisely defined production processes" and "straightforward processes are best suited for obtaining reliable cost data because these complexities can cause variations in reporting". Furthermore, considerations should be given to the cost-benefits of adding these complexities (Halachmi, 2005). As suggested by Frank and

D'Souza (2004), the benefits likely to accrue to AGENCY from taking this approach may outweigh the costs from obtaining information across these complex activities of BUNIT. This particular aspect is beyond the scope of this research. However, opportunities exist for future research to consider the point at which costs outweigh benefits.

There are, however, several adverse consequences that AGENCY may experience as a result of its choices in design of the cost systems and the choice of techniques to determine costs.

1. While the use of costing information improves the accountability of AGENCY, too much of a focus on assessing performance for accountability purposes tends to distract from the need to assess the efficiency and effectiveness of service delivery. As suggested by Halachmi (2005), accountability tends to be compliant-focused and permits assessment of whether AGENCY is meeting legislative requirements associated with the MFO policy. The key objectives of the MFO policy suggest clearly that the focus should be on enabling assessments to be made of efficiency and effectiveness. As Halachmi notes, such an assessment of efficiency and effectiveness requires a focus on productivity performance.
2. Restricting the measurement of costs to aggregates means that the multiple activities of BUNIT would be measured together. This affects what Pizarella (2004: p 645) defines as the "purity of cost information". While "the consolidation of costs may provide more accurate results [for AGENCY] their usefulness is limited because numerous activities are reflected". The implications for the accuracy of AGENCY's costing is, as noted by Pizzarella (2004: p 641), that the cost per program would not be equivalent to the cost of each program delivered by BUNIT divided by the number of employee hours per program but rather the cost of all BUNIT's services divided by the total number of FTEs. Such information is likely to have little relevance to the management of BUNIT and as such may affect managers' motivation to use this information effectively.
3. At the risk of reporting what several studies have reported previously (Radin, 2000; Poole et al., 2001; Gianakis, 2002; Pitsvada & LoStracco, 2002; Modell,

2004; Frank & D'Souza, 2004; Modell, 2005; Moynihan, 2006), the potential for AGENCY to develop a compliance-based attitude is more likely when the focus on determining cost is limited to aggregate levels that serve purposes of securing resources through the State's budgeting processes. Parker & Bradley (2000) note that the Queensland government is characterised by high levels of conformity. As such, there is likely to be significant pressure placed on AGENCY to adhere to the rules and procedures associated with meeting its legislative requirements of the budget process rather than enhancing its abilities to meet the key objectives of the MFO policy.

6.5 Conclusion

Key theoretical principles developed in Chapter 3 focused on pertinent questions concerning how the agency collects information on costs; the types of cost objects used by the agency; methods for allocating indirect costs; views about cost management techniques developed by the researcher; and techniques used by AGENCY for evaluating the efficiency and effectiveness of its service delivery.

A combination of document analysis and case study interviews with 12 managers and directors from two work units, BUNIT and CENTRAL, within one Queensland public sector agency was used to investigate RP-1 and, in particular, the extent to which there is support for the theoretical principles, CM-1 and CM-2. This mixed-method approach was also used to investigate RP-2 and the extent to which the methods and principles of costing accounting proposed in this research is adopted and applied by AGENCY. This chapter presented the results of data collected from these analyses.

Documentation relating to policy statements, guidelines, legislation, audit reports, and AGENCY cost reports were analysed for the purposes of gaining knowledge of the Queensland Government's intended-costing and the costing-in-use at the agency selected for this research. The analysis of this documentation suggested support for theoretical principles, CM-1 and CM-2.

Under the MFO policy Queensland Government agencies are required to collect and report on the costs of outputs delivered. While the concentration is on determining

the total costs of outputs, agencies are advised to develop an internal costing capability that mirrors their external requirements. Agencies are also required to have an understanding of the cost impacts of its services. In determining total cost of outputs, those costs which cannot be directly traced to a cost object should be fully attributed by linking resources to activities and activities to outputs. In establishing these linkages agencies are encouraged to use a cost driver (that is, cause-and-effect) to attribute indirect costs to a cost pool for later attribution to outputs. The attribution bases should be the factors that cause the costs to be incurred. While the implementation of ABC is not mandatory, it is the recommended costing methodology. A step-by-step procedure for implementing ABC is provided to agencies.

It is apparent from the evidence collected from an analysis of documentation that Queensland Government agencies must choose amongst alternative courses of action by measuring cost efficiency and cost effectiveness of their delivery options. Assessments of agency cost performance are largely taken from the viewpoint of financial accounting, that is, by monitoring end of year operating statements, statements of financial performance, and output performance statements, over time. Such assessments, however, simply serve to provide full-cost estimates of the agencies' performance. There is no legislative requirement for agencies to measure costs at a level lower than output. Unless there is an imperative for agencies to calculate costs at a greater level of detail they will likely take the option to report aggregated cost of services from agency financial accounting systems. The implication is that agencies' costing methodology is likely to serve the purpose of securing sufficient funds through the State's budgeting process rather than improving its ability to understand the cost impacts of its service delivery alternatives. While agencies are urged to develop cost efficiency and cost effectiveness measures the requirement is for these measures to be established at the output and outcome level only.

An analysis of AGENCY cost reports identified the types of costing information used by AGENCY and by its work units, BUNIT and CENTRAL. If theoretical principle, CM-1 is adopted the researcher expected responses suggesting that AGENCY collected costing information on different dimensions and at varying

levels of detail. The analysis of interview data that sought to determine the extent to which AGENCY has adopted and applied the theoretical principle, CM-1, suggests that the cost information reported by CENTRAL to the executive management of AGENCY is largely on the basis of output information. It is at the output level that CENTRAL reports its cost efficiencies and effectiveness measures. Measures that are classified as effectiveness are arguably output oriented rather than outcome oriented. This same finding is evident in the types of cost information contained in BUNIT's performance agreement.

It is also apparent through an analysis of BUNIT's internal cost report that BUNIT focuses on the output and product or service level. It is apparent that costing information is not collected at levels of activity or process. The findings of this investigation suggests that BUNIT has a strong focus on line item expenditure with costing information largely being gathered from general ledger accounts. It is apparent that indirect costs are not distributed to cost objects below the output level. Furthermore, it is apparent that AGENCY does not attribute indirect costs to BUNIT – BUNIT is charged for direct costs only. The results of analysing interview data indicate that costs are determined by simply “using the operating budget results”, that is, costs are determined at the aggregate level only.

A review of AGENCY's cost accounting system shows that the only dimensions of cost that are measured are functional or departmental costs. It is apparent that the accounting system provides no means for measuring different dimensions of costs. Further there is no evidence to suggest that AGENCY has developed various cost pools for the purpose of attributing indirect costs. The indirect costs incurred by BUNIT are generally distributed to teams by the use of a pre-determined percentage allocation. The analysis of interview data confirms the findings from the document analysis: AGENCY collects cost information only at the level of output and AGENCY's systems do not permit collection at any other view.

The findings of this investigation suggest that the primary focus of AGENCY and its work units, BUNIT and CENTRAL, is on the budget allocation until and unless further investigations are warranted. The implication of this is that costing is likely to be based on AGENCY's needs to secure sufficient resource allocations through budgeting processes of the Government.

In determining whether AGENCY adopts and applies the theoretical principle, CM-2, findings from the data analysis indicate that AGENCY includes in its cost reports cost measures classified as cost efficiency and effectiveness. However, cost efficiency measures are reported at aggregate levels. It is arguable that the measures of effectiveness, as reported by CENTRAL, are output-oriented rather than outcome-oriented. Furthermore, it is probable that the limited selection of measures of effectiveness will not enable AGENCY to choose amongst alternative courses of actions in terms of their costs and their effectiveness in the attainment of government outcomes.

Service delivery involves quite complex interactions with its clients with each type of interaction likely to have different cost implications. While AGENCY employs an ABC system to collect costs, these costs are collected at a high level of activities. The determination of costs at high levels is likely to ignore these complexities. Furthermore, interview responses indicated that the accuracy of the costing information entered into this ABC system by BUNIT is questionable. With this being the case, it is doubtful that the information produced by this system would prove useful to AGENCY. As such, it is not surprising that some doubt exists as to the level of commitment by BUNIT to developing this system.

The results suggest that it is unlikely that the costing information collected by AGENCY's work units will reflect the full range of information needs of management operating within the OBPM environment under the Queensland Government's MFO policy. The adoption and application of a more complex cost accounting system is a necessary consideration for achieving a focus on delivering its services both efficiently and effectively.

Furthermore, in adopting and applying cost accounting practices agencies rely on the quality and accuracy of their costing information. In general, findings from the analysis of interview data suggest that managers in BUNIT consider that inaccuracies in costing information are common. On the contrary, analysis of interview data from CENTRAL suggests that these managers do not give much consideration to the accuracy or otherwise of the costing information since they simply look at the total. According to managers from CENTRAL accuracy or otherwise of costing information is not of paramount importance since "it all ends

up in the right place”. While both BUNIT and CENTRAL managers considered that the information was accessible to them, BUNIT commented that although the information was available, the meaningfulness of it is “questionable”.

The results of this investigation indicate that AGENCY has previously attempted to develop better costing systems. However, despite this, the apparent view of interviewees is that at the end of the day AGENCY gets resources from the Government. It is apparent that while the focus of AGENCY is to secure the budget funds from the Government, AGENCY simply needs to decide how it will use it.

The cost accounting practices of AGENCY have certain advantages. Firstly, the allocation of only direct costs to BUNIT has the significant advantage of attributing only those costs directly within BUNIT’s managerial control. Secondly, the totalling of costs by AGENCY removes any complexities associated with costing for multiples activities. Finally, in establishing broad definitions of services, CENTRAL’s application of the ABC model eliminates situations where there may be complex interactions between the provider and the recipient of the service.

At the same time, however, AGENCY may experience several adverse effects from its costing-in-use that it should be aware of before it attempts to enhance these practices. While the use of costing information improves the accountability of AGENCY, a greater level of focus on assessing performance for accountability purposes tends to distract from the need to assess the efficiency and effectiveness of service delivery. Furthermore, restricting the measurement of costs to aggregates will mean that the multiple activities of BUNIT would be measured together.

Finally, there exists the potential for AGENCY to develop a compliant-based attitude when the focus on determining cost is limited to aggregate levels that serve the purpose of securing resources through the State’s budgeting processes.

The following chapter draws conclusions from this research. Implications for practice, theory and possible areas of future research are also provided.

CHAPTER 7 CONCLUSION

7.0 Introduction

The aim of this research is firstly to determine the contemporary MAP that should be considered to meet the Government's objectives for achieving public sector OBPM in Queensland under its MFO policy. Second, this research aims to determine the extent to which these MAP are applied by AGENCY, the Queensland Government agency selected for this research. In this regard these aims are reflected in the following statements of the research problem:

- RP-1 To what extent can contemporary MAP contribute to achieving the objectives of the Queensland Government's "Managing for Outcomes" policy?**
- RP-2 In the selected case study, involving one Queensland Government agency, what support can be found for the MAP proposed by this research? To what extent are these proposed MAP adopted and applied in order to achieve the objectives of the "Managing for Outcomes" policy?**

The Queensland MFO policy, which is embedded in legislation, requires the accuracy and comparability of performance and cost data as the fundamental ingredients for OBPM. Principles underpinning the MFO policy focus agencies on the following techniques to operationalise MFO:

- enabling measurement, reporting and monitoring of performance in terms of resources, activities, outputs, and contribution to desired outcomes; and
- determining the costs of outputs.

To assist in understanding the theories underpinning an OBPM environment, along with the technical and methodological aspects of MAP, the following research questions were formulated.

RQ-1	What contemporary MAP should be applied to an OBPM environment?
RQ-2	Under the MFO policy, what type of outcomes-based performance information should be reported by public sector agencies?
RQ-3	What approach should public sector agencies adopt to establish linkages between its strategic direction and its programs or interventions so that the agency may explain its contribution to desired changes in conditions of the community and its residents and ultimately to the Government's desired outcomes?
RQ-4	What type of costing information is required to be reported under the MFO policy?
RQ-5	Is activity-based costing an appropriate costing model for agencies to use in calculating the cost of its products and services and in assessing the efficiency and effectiveness of service delivery?

A conceptual framework is developed for implementing the MFO policy within the Queensland public sector environment to which MAP may be applied. Based on this framework, which is developed in Chapters 2 and 3, the research questions are translated into a set of propositions. In chapter 2 the researcher examines the principles and concepts relating to OBPM and, in particular, performance measurement techniques, to develop a framework to guide Queensland public sector agencies in meeting the MFO objectives. The theory underpinning contemporary cost accounting is presented in Chapter 3. Jointly, Chapters 2 and 3 identify MAP best suited for public sector agencies operating within the OBPM environment prescribed by the MFO policy. A set of theoretical principles is developed.

These principles set out what the researcher expects the findings of the research to be (Rowley, 2002). They guide the investigation into research problem, RP-1. They also guide the collection and analysis of data for the investigation of research problem RP-2 and the extent to which MAP is adopted and applied by AGENCY, the Queensland Government agency selected for this research.

To meet the objectives of this research a mixed-method approach was adopted (Jick, 1979, Polit & Hungler, 1995, Flick, 1998) to find support for and possible revision of the set of theoretical principles that underpin this framework. The data collection and analysis is then structured in order to support or refute the theoretical propositions.

Chapter 4 provides a description of the mixed-method approach to this investigation. A combination of briefings and consultations with a critical group of practitioners, document analysis, and case study interviews was used. This research process generates qualitative data that contribute to the triangulated analysis (Jick, 1979).

The critical group of practitioners is used to provide constructive feedback relating to the theoretical principles developed in Chapters 2 and 3 (Golby & Appleby, 1995). In the first place, documentation is analysed for the purposes of gaining knowledge into the Queensland Government's MFO policy and the intended MAP and to seek support for the theoretical principles developed in this research. Since documentation may only partially reflect reality, and may only tell the researcher what should be done, not whether it is actually done (Robson et al., 2001), a case study is used to investigate the extent to which the proposed MAP is adopted and practiced by AGENCY. The extent to which the proposed MAP is adopted and practiced by AGENCY is also analysed through analysis of the agency's planning and annual reports, and its performance and cost reports.

Chapters 5 and 6 present the results from the application of mixed-method approach. They describe the detailed analysis of the data, and implications of these results are examined.

The researcher argues that this research makes a significant contribution to the theory of public sector OBPM. First, this research provides guidance to Queensland public sector agencies in the ongoing implementation of the MFO policy that is theory-based (Andrews, 2002 in Frank & D'Souza, 2004). Through developing a framework based on sets of theoretical principles, the Queensland Government may establish realistic expectations for the implementation of MFO. It should assist in clarifying the steps to take in implementing MFO. With these steps being more clearly linked to theory, the Queensland Government may reasonably expect that

agencies will adopt and apply appropriate MAP that enables the implementation across its agencies to be successful.

This chapter summarises earlier chapters of this thesis and draws conclusions to the research problem and associated research questions. Limitations of this research as well as implications for practice, theory and possible areas of future research are also provided. Conclusions drawn from examining the research questions relating to research problem, RP-1, and the findings from investigating research problem RP-2 are provided in this chapter.

7.1 [RP-1] To what extent can contemporary management accounting principles and practices contribute to achieving the objectives of the Queensland Government's "Managing for Outcomes" policy?

A focus on outcomes is a central element in the Queensland public sector OBPM. OBPM is underpinned by the notion that an assessment of an agency's performance should shift the focus from resources (inputs) to the use of resources in delivering services that contribute to the significant economic and social benefits that accrue to the community. Agencies operating within the OBPM framework should concentrate on thinking about what government is to achieve and the selection of appropriate strategies to get there. Thus strategic planning is the main linking mechanism between the agency's actions and the outcomes desired by the Queensland Government. The approach, therefore, is goal-oriented, containing the goals and performance measures for each phase of an agency program's life cycle. The objectives of the MFO policy require public sector managers to make decisions on the basis of what the agency's programs are achieving for the community and at what cost. MAP focuses on supporting strategic activities and changes in processes and structures (Chenhall & Langfield-Smith, 1999). Such techniques include performance measurement and cost accounting.

Performance measurement involves the periodic measurement of specific program inputs, activities, outputs, short-term and intermediate outcomes. Outcomes measurement should be guided by formally stated objectives of the agency. It should focus on what government has achieved (outcome), not only on how it goes about achieving it (process). Furthermore, to provide completeness in the performance

assessment of the agency, the design should incorporate a balance of indicators that reflect the range of accountabilities to stakeholders.

For cost accounting to serve a useful role in an agency its design should improve the agency's capability to measure resources consumed in accomplishing a specific purpose, performing a service, providing a product, or carrying out a program. This requires a need to understand the configuration of activities and how they interrelate. The interrelation of activities is determined upon consideration of the organisational structure of the agency and where joint responsibility for costs is shared within it. The capability to measure resources consumed is achieved through obtaining different views of costs to be determined including product, function and business process. With this in mind, the dimensions of usefulness, truthfulness and affordability associated with collecting costing information influences the complexity of the cost accounting practices.

In investigating RP-1, the connectivity between the nature of the Queensland Government's MFO policy and the MAP required to support the objectives of the policy were examined. Figure 7.1 depicts how these concepts are conceptually connected.

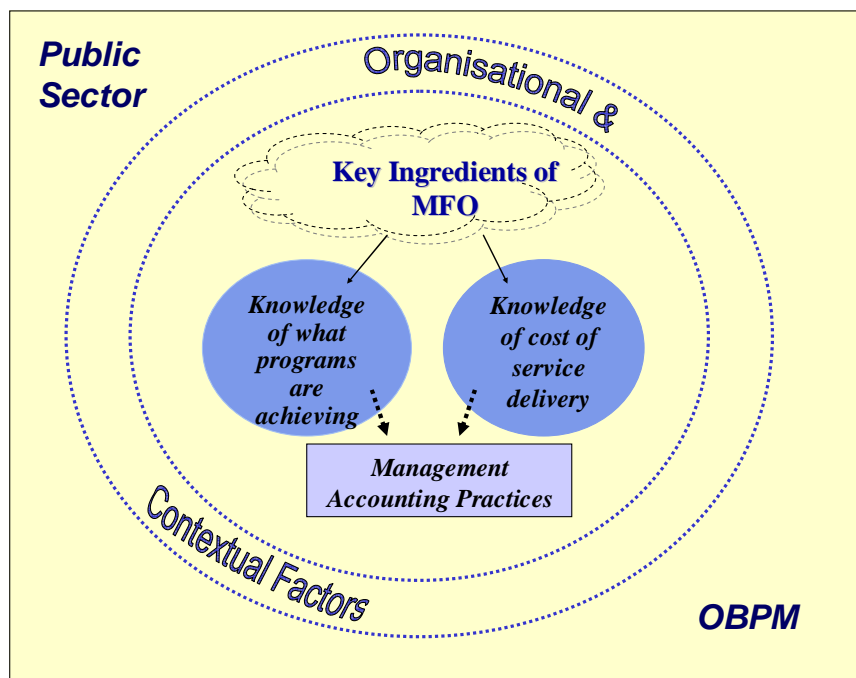


Figure 7-1 Conceptual view of the connectedness between MFO and MAP

The key ingredients of the MFO policy are knowledge of what government programs are achieving as well as knowledge of the cost of service delivery. This convergence of these ingredients and MAP is concerned with the following:

- measuring government service delivery through the application of performance measurement techniques; and
- measuring the cost of service delivery through the application of contemporary cost accounting techniques.

The theories of OBPM, performance measurement and cost accounting are dealt with in Chapters 2 and 3. As a result the following set of theoretical principles is developed. These principles identify MAP best suited for public sector agencies operating within an OBPM environment. These principles inform the investigation relating to the research problem, RP-1.

PM-1 Public sector agencies should develop change maps and logic models that link resources, activities, and outputs to a chain of outcomes so that the agencies may demonstrate how they contribute to the achievement of the Government's desired outcomes. This will enable them to meet the objectives of the MFO policy.

PM-2: Public sector agencies should measure performance by developing measures suitable for communicating their contribution to the Government's desired outcomes and suitable for assessing the success of activities and outputs in contributing toward these desired outcomes.

CM-1: Public sector agencies are able to determine the cost of service delivery when they apply the following techniques:

- use of methods to assign direct costs to cost objects;
- identification of cost pools and cost drivers for the allocation of indirect costs to different cost objects, including outputs and activities;
- employment of contemporary costing methodologies, such as ABC, to improve the accuracy of cost information.

CM-2: Public sector agencies are able to choose amongst alternative courses of action in terms of their costs when they employ techniques associated with measuring cost efficiency and cost effectiveness.

7.1.1 PM-1 was developed to answer the research questions RQ-1 and RQ-2

The OBPM process, as a comprehensive and integrative planning, budgeting and performance management approach, begins by focusing an agency on its mission, goals and objectives. The steps of measuring and monitoring performance provide valuable information on which to evaluate performance. From this feedback the agency adapts its planning and service delivery strategies.

In implementing OBPM, agencies' starting point is to firstly identify the desired outcomes of the government to which it contributes. The next step is to set clear strategic goals along with a pathway to achieving these goals. These determine what is to be measured. Agencies are then required to link the activities they undertake and the resources required to the outputs that contribute towards achievement of these outcomes. This linking process is designed to enhance an agency's understanding of and use of performance information strategically to improve its performance. It is also designed to communicate to stakeholders how the work of the agency contributes to government outcomes. There is, however, an apparent weakness in the typical OBPM linking process. The link between the government outcomes and an agency output often appears "broad and far reaching" (Commonwealth of Australia, 2002: p iv) resulting in an apparent gap in performance information.

In recognising that the relationship between agencies' activities, outputs and outcomes can be complex and challenging, PM-1 recommends that an enhanced linking process that makes this link more apparent should be adopted. This may be achieved by not only documenting the long-term outcome that the government wants to achieve, but importantly how these outcomes change over time and how the agency's outputs and activities contribute to these changes (Hatry, 1999; Behn, 2003). Such enhancements to the linking process are achieved through the use of change maps and logic models.

Change maps (Brown, 1995 in Hernandez, 2000; Connell & Kubisch, 1998) enable the clear articulation of intermediate and short-term outcomes that support the achievement of higher level government outcomes. Logic models (Montague, 2000; Friedman, 2001; W.K. Kellogg Foundation, 2001) are an effective technique for mapping resources and activities to outputs and ultimately to outcomes. These techniques provide a mechanism to create visual maps of the activities and outputs and ultimately the series of outcomes expected. Producing these visual maps requires focused decision making in order to define accurately how activities, outputs and outcomes are connected at any given level, as well as how one level relates to other levels. Jointly the techniques of change maps and logic models describe more fully the performance objectives of the agency.

The success of using change maps and logic models depends on how well the agency can identify the incremental steps that move residents and/or communities toward the long-term outcome/s (Alter & Murty, 1997: p 112). The recognition of these conditions in measurable terms requires data that tell whether these conditions exist or not. Agencies will then be able to document their progressive achievements in contributing to these changes.

At a broad conceptual level it does not appear difficult for agencies to select outcome categories. Most people, for example, want children to grow up in stable and safe family homes and be able to function as productive members of the community. While agreement is more easily reached at this general level, as the process of defining outcomes becomes more specific, the concerns of particular stakeholders differ. A considerable element of bargaining between conflicting interests often inhibits the ability to identify and measure outcomes adequately (Smith, 1995: p 14). Additionally, the long range nature of many government programs and the time-lag before outcomes become observable often means that agencies are less inclined to shift their focus away from activities and towards outcomes (Boland & Fowler, 2000). These issues can often render the very meaning of outcomes and effectiveness potentially changeable and elusive (Smith, 1995; Wang & Berman, 2001). Consequently, the specification of these in practice, particularly at the intermediate and short-term level, is often rare rather than routine (Campbell, 2002). Despite these difficulties there remains a continued interest for

the public sector to move beyond the provision of services to the development of programs that target specific outcomes that benefit the community (Ellis, Braff & Hutchinson, 2001).

Justification for government programs has become essential for credibility and depends on a sound programming process that clearly establishes a link between theory, the program model and subsequent changes in participating target groups (McKensie & Smeltzer, 1997).

7.1.2 PM-2 was developed to answer the research question RQ-3

Under the Queensland Government's MFO policy, agencies need performance information about the achievement levels of the programs they deliver. Consequently, agencies should collect information that is increasingly focused on tying resources to their intended objectives and ultimately to the outcomes of government efforts (Williams, 2003). To do this, information is required on the following aspects of an agency's performance:

- the processes and activities they undertake;
- information which permits them to assess the outputs (that is, services or products) they deliver;
- the short-term changes in symptoms or severity of problems targeted by their services; and
- broad long-term effects after services have ended.

Delivery of this information requires quantification. Appropriate quantification requires the use of various types and categories of performance measures. The types of performance measures should relate to outcomes, outputs, activities and resources, while categories of measures should include effect, quantity, quality and cost.

Measures of effect show whether the agency's clients are better off as a consequence of receiving the services and will gauge the effect of the services on the lives of citizens. Measures of effect focus on changes in skills, attitude, and behaviour and/or circumstance (Friedman, 2001). Performance measures suitable for

measuring the success of activities and outputs fit into different categories. Categories should include:

- i. *Quantity of Activities and Outputs*: How much service was delivered? How many people received the service? How much of a process or activity associated with the delivery of outputs was undertaken?
- ii. *Quality of Activities and Outputs*: How well was the service delivered? This may be measured through resident or client satisfaction surveys. Quality of processes or activities may also be measured in accordance with adherence to standards.
- iii. *Cost*: How much did the service cost in terms of the costs to undertake the activities?

In providing this information, agencies can better produce reliable and valid data about performance that is grounded in an apparent logic behind what is being measured (Behn, 2003).

Despite the extensive use of performance measures in the public sector, the practice “rarely appears to be guided by formally stated objectives” (Modell, 2005: p 58). Another common complaint of performance measurement in the public sector, however, is that efforts to measure performance have largely focused on process rather than outcome. What should matter to government is the end focus which should be what government has achieved, that is the outcome. Measuring how government goes about achieving it, that is, the process should not be the sole focus (Pitsvada & LoStracco, 2002: p 65). Audit findings of several jurisdictions have reported significant accountability gaps in agencies’ performance management practices (Auditor General Victoria, 2001, Commonwealth of Australia, 2002; Auditor-General of South Australia, 2002; QAO, 2005b).

While performance measures may be reported in government budgets, the evidence suggests that they are yet to play a significant part in resource allocation decisions (Melkers, et al, 2002). While practical guidance from several jurisdictions is well documented and provides assistance to agencies for implementing the process, the adoption of OBPM continues to present challenges for the public sector. In the absence of a theoretical and conceptual basis for guiding agencies’ adoption of

OBPM, there is the risk that difficulties will be faced by agencies in coming to terms with what should be measured.

7.1.3 CM-1 was developed to answer the research questions RQ-4 and RQ-5

The task of measuring performance in government service delivery draws attention to cost accounting practices and the need to provide information relating to the cost of services provided. Cost accounting centres on those theories relevant to connecting cost accounting practices with the information requirements of the Government's MFO policy. Relevant theories relating to the determination of cost includes those that inform the attribution and allocation of administrative and corporate-wide costs to products and services; the technical aspects of the ABC model, including (i) relevant cost concepts, (ii) bases for cost allocations and (iii) methods of cost measurement.

Cost represents the value of resources that have been consumed to achieve a particular objective of the agency. The quality of costing information required by agencies is dependent on the processes used by the agency for gathering costing information and for choosing those items for which costs are sought. Increasingly government agencies seek to collect costs associated with outputs, programs, and activities within programs and projects. It is the choices of cost objects and cost classification which affect how costs are assigned to cost objects.

Typically, an agency has different views of costs that it wants to measure (Geiger, 1999a). Such views include costs by output, costs by activity, costs by project, and the like. The level of detail along with the frequency with which the information is required for these views may vary. Consequently, it is essential to commence with gaining an understanding of the needs of management prior to proceeding with the task of measuring costs.

Assigning direct costs is a relatively simple process for agencies since they can be attributed directly to an output. The process of assigning indirect costs, however, requires the identification of a measure, or cost driver that can be used to distribute proportionately the cost to relevant cost objects. The choice of cost driver is important in that it can have a significant impact on the accuracy of the cost

measurement system of the organisation. However, the choice of method for assigning costs (direct tracing; estimation; indirect allocation) depends on the agency's need for accuracy, flexibility, completeness and cost (Geiger, 1999b; IFAC, 2000).

The cost effectiveness of using the indirect allocation method is the reason why ABC has become a popular methodology. It becomes problematic for corporate services and support departments where there are no direct measures of consumption by which to assign the costs. In this case there is often no causal relationship between the measure and the demand for the services received from the service department. The process of assigning indirect may become unmanageable if too many bases are used (IFAC, 2000: p 17). However, inaccuracies are more evident when the basis for assigning costs is done on a general or estimation basis. As such these methods should be avoided.

Measuring the cost of outputs is one of the primary functions of a cost accounting system in a government entity. Attempts should be made to relate costs to their principal causal factor whether it is activity or some other factor. This presents a challenge for public sector agencies to find ways to increase the "trace-ability" (Martinson, 2002: p 20) of not only direct costs, but also indirect costs. ABC is a superior methodology that links resource consumption to the activities performed by an agency and then links those activities to outputs (Chalos, 1992; Drury, 1992; Christensen & Sharp, 1993; Wong, 1996; Cooper & Kaplan, 1998; Geiger, 1999a & 1999b). ABC, however, should be undertaken following the attribution of direct costs either directly to activities or to outputs where these costs are known to be directly traceable to the output.

7.1.4 CM-2 was developed to answer the research question RQ5

The use of ABC cost information enables management to improve continuously the efficiency of the activities (that is, delivering the outputs at a lower cost) and the effectiveness of the activities (that is, delivering quality outputs that contribute positively to government outcomes) (Cooper & Kaplan, 1992).

Efficiency refers to the relationship between resources consumed and activity undertaken or outputs produced (Van Peurse, Pratt & Lawrence, 1995), while effectiveness refers to the absolute level of goal attainment (Hatry, 2002). Cost per activity or cost per output is one measure of efficiency, while cost per outcome is a measure of cost effectiveness and gives management an indication of the impact of each dollar spent (Tishlias, 1992).

Cost-effectiveness analysis assumes that a certain benefit or outcome is desired, and that there are several alternative ways to achieve it. By definition, therefore, cost-effectiveness analysis is comparative. Programs are studied and compared on the basis of some other common scale for measuring outcomes (e.g. number of students who graduate from high school, infant mortality rate, test scores that meet a certain level, reports of child abuse). They address whether the unit cost is greater for one program or approach than another, which is often much easier to do, and more informative, than assigning a dollar value to the outcome (White, 1988).

Although the best-performing agencies are likely to be both effective and efficient, there may often be times when trade-offs between the two is necessary (King, 1970). “A change in service delivery may increase the level of resources per unit of output (a decrease in measured efficiency) but lead to better outcomes (an increase in effectiveness)” (SCRCSSP, 2003: p 1.11).

In conclusion, the research problem, RP-1, examines the contemporary MAP that should be applied in order to achieve the objectives of the Queensland Government’s MFO policy. In doing this key theoretical principles underpinning the adoption of OBPM, performance measurement and cost management practices are developed. Findings indicate that these MAP should be the applied by Queensland public sector agencies in order to meet these objectives.

7.2 [RP-2] *In the selected case study, involving one Queensland Government agency, what support can be found for the MAP proposed by this research? To what extent are these proposed MAP adopted and applied in order to achieve the objectives of the “Managing for Outcomes” policy?*

This research identifies specific principles that drive an OBPM environment in which outcomes-based performance is measured and for which costs are determined. In relation to RP-2, evidence is collected through document analysis and the case study interviews and determines the extent to which the MAP proposed in this research are adopted and practiced by the case study agency in order to achieve the objectives of the MFO policy. The research approach provides a complementary view of what should be happening with what is actually happening in relation to MAP in the agency selected for this research.

7.2.1 Support for Theoretical Principles

This research investigates whether there is support for the theoretical principles developed in Chapters 2, that is, PM-1 and PM-2, and in Chapter 3, namely CM-1 and CM-2.

If PM-1 is supported then the researcher would expect to find evidence relating to the following:

- The legislative nature of MFO policy;
- The key principles of MFO policy, including its definition and purpose;
- The implications of MFO for agencies;
- The guidance provided by the Queensland Government’s central agencies to line agencies in undertaking OBPM including strategic planning, and performance measurement;
- The guidance by the Queensland Government central agencies to line agencies on how agencies are to link inputs and activities to outputs and ultimately to Government outcomes;
- A description of Government outcomes; and
- The accountabilities and responsibilities of agencies with respect to performance.

For PM-2 to be supported the researcher would expect to find evidence within AGENCY of the following:

- The scope of performance information requiring collection by AGENCY through its work units, BUNIT and CENTRAL;
- How AGENCY measures performance in terms of the types and categories of performance measures; and
- The guidelines established by the Queensland Government and by AGENCY for its work units to follow in developing performance measurement.

For CM-1 to be supported the researcher would expect to find evidence of the role of costing; recommended ways in which to implement costing systems; the level of detail of cost information requiring collection by agencies; and the method by which agencies should determine the cost of a range of objects including activities and outputs.

CM-2 is supported where evidence indicates that cost efficiency and cost effectiveness techniques are used by agencies to assist in the detailed analysis of its service delivery alternatives.

7.2.1.1 Support for Theoretical Principle, PM-1

The theoretical principle, PM-1, relates to the way in which an agency describes its expected performance. Support for the theoretical principle, PM-1, is gained from both discussions with the critical group of practitioners and an analysis of documentation, including policy documents and guidance material, from the central agency of the Queensland Government. Evidence collected in this research determines whether there is support for the application of program logic through the use of techniques such as change maps and logic models to describe performance expectations.

Examination of documents from central agencies, relating to the implementation of MFO indicates clearly the need for agencies to map outputs to outcomes (Queensland Treasury, 2003). Policy documents highlight that while it is recognised that the process of linking of outputs to outcomes is challenging, the cause and effect between an output or action and its ultimate impact or outcome is difficult to

track without a clear mapping process (p 1). While these key policy documents do not provide step-by-step procedures for undertaking this mapping process, recommendations specify a “need to illustrate how the hierarchical arrangement of indicators provides evidence of the impact of outputs on outcomes, and also the extent to which outputs are being delivered efficiently and effectively” (Queensland Treasury, 2003: p 1 - 2).

Practical guidance provided by central agencies specifies that agencies should use a linking process to map their outputs to the government’s desired outcomes to which they contribute. However, the typical linking process does not illustrate how the delivery of agencies’ outputs will lead to, over time, the achievement of outcomes. As proposed in Chapter 2 this linkage should describe a series of expected changes in behaviour, attitudes or skills of agencies’ client groups over time. Without the use of an enhanced linking process, as proposed in Chapter 2, significant gaps in performance information can be expected.

While documentation published by the central agency does not illustrate the use of an enhanced linking process, guidance for this is found in seminar papers from information sessions conducted by the Treasury Department. For example, the advice provided at these sessions is to link agency outputs to the results expected from the delivery of these outputs and then ultimately to government outcomes. This implies the use of techniques such as change maps.

When the principle was presented and discussed with the critical group of practitioners support was positive. Several members comment *“Your model/ approach makes total sense”* and *“Two of my colleagues attended your session today and came back to the office quite excited about what you had to say about performance indicators”*. Members of this group confirm that the theoretical principle, PM-1, describes well the conceptual framework underpinning the MFO policy, because *“it clearly enables agencies to determine why their program produced certain outcomes or why the Government outcomes were not achieved”*.

7.2.1.2 Support for Theoretical Principle, PM-2

Support for PM-2 is examined through analysis of documents from both the central agencies and from AGENCY.

In relation to PM-2, the researcher would expect to find evidence for the use of multiple types and categories of performance measures that are suitable for measuring the success of activities and outputs in achieving desired outcomes. The types of performance measures expected relate to outputs, activities and resources; while outcome indicators and measures of effect should be used to report progressive achievement of desired outcomes. Categories of measures should include quantity, quality, and cost.

Analysis of documents from the central agency shows that the types of performance measures that agencies must report is limited to outputs, while the categories relate to the quality, quantity, timeliness, location, and cost. This requirement by agencies to measure, monitor and report on these measures is embedded in legislation. Despite AGENCY having a legislative requirement to measure and report its performance measures, findings show that in each of AGENCY's key documents a different set of indicators and measures are used to explain performance. The implication of using different indicators and measures is that it can lead to (Wholey, 1999):

- different meanings of performance amongst the work units;
- confusion for employees and stakeholders as to the performance standards expected of them; and
- for what purpose the standards are to be met.

Findings from the document analysis indicate that the most common categories (in the case of AGENCY's MPS) include measures of inputs and outputs. Input measures focus on funding levels provided to AGENCY. Cost measures are also utilised, although these are at aggregate levels. Output measures focus mainly on quantity and quality measures. Measures of activity are not used. Measures of effect appear to measure those results or outcomes that are outside the control of AGENCY. The clear mapping of a pathway through which clients will gain benefits from the direct receipt of AGENCY's services should enable AGENCY to develop measures of effect. These findings are consistent with those found in the recent QAO (2005a & 2005b) audit findings.

Analysis of AGENCY's key documents lead the researcher to raise some questions

as to the appropriateness of what AGENCY's MPS documents use as measures of effect. Performance measures should enable assessment of the performance within the bounds of the agency (Pizzarella, 2004). However, the inclusion of measures that suggest a shared responsibility might present a risk to AGENCY in being held accountable for elements that are outside the control of it as a single agency (Friedman, 2001). The fact that budget documents usually have a one-to-two year time horizon (Carlin & Guthrie, 2001; GAO, 2001; De Brujin, 2002; Campbell, 2002) provide a warning to AGENCY about measuring that which is beyond its direct control or significant influence (Montague, 2000).

Therefore, the legislative requirement for AGENCY to measure and report its performance measures confirm that the theoretical principle, PM-2, describes well the conceptual framework underpinning the MFO policy. However, it is apparent that AGENCY uses different sets of measures to explain its performance in each of its key documents. An analysis of AGENCY's documents suggests that the most common categories include measures of inputs and outputs. Measures of activity are limited. Furthermore, the measures of effect that AGENCY uses in its budget documents raises questions regarding their appropriateness as an accountability mechanism for a single agency.

7.2.1.3 Support for Theoretical Principle, CM-1

For CM-1 to be supported the researcher would expect to find evidence from an analysis of documentation from the Queensland Government's central agencies of the role of costing; recommended ways in which to implement costing systems; the level of detail of cost information requiring collection by agencies; and the method by which agencies should determine the cost of a range of objects including activities and outputs. The researcher would also expect to find evidence from an analysis of AGENCY's documentation that AGENCY employs costing methodologies that include the use of costing information, cost pools and cost drivers to allocate costs to different cost objects so as to assess the cost of its service delivery.

According to policy documents published by the central agency the role of costing is to (i) increase the knowledge of output costs by agencies; (ii) assist agencies in their

internal budget allocations; and (iii) ensure appropriate resources are available to achieve performance targets (Queensland Treasury, 1998: p 20). While Queensland Government budgeting processes centre primarily on monitoring and reporting of output costs, the central agency recommends that an agencies' internal costing information mirror (at a more detailed level) the external reporting arrangements. This can be determined by the disaggregation of outputs into lower level components such as activities or projects at which accurate costing of these activities or projects can be achieved. Central agencies advocate the adoption of a costing methodology by agencies that identify cost drivers of service delivery; allocates agency corporate costs to outputs at the macro level; and identifies the costs associated with activities and projects. The recommended costing methodology for achieving this is the ABC method. The ABC method, however, is not mandatory.

Agencies are encouraged to adopt ABC techniques which look at the underlying cost drivers and allocate costs on the basis of cause-and-effect rather than simple pro-rata allocations (Queensland Treasury, 1998: p 26). A step-by-step procedure for implementing an ABC system is provided to agencies. Through this analysis of documentation, including guidelines and policy documents, the researcher gained support for theoretical principle, CM-1.

7.2.1.4 Support for Theoretical Principle, CM-2

The MFO policy requires agencies to collect, monitor and report performance information, including costs that are consistent with information agency managers need to assess the effectiveness and efficiency of their services and the quality of resource management. The analysis of documentation confirmed support for theoretical principle, CM-2. Queensland Government agencies must choose amongst alternative courses of action by measuring cost efficiency and cost effectiveness of their delivery options. Such assessments are undertaken by monitoring end of year operating statements, statements of financial position and output performance statements over time.

However, it is apparent that the assessments of agencies performance is largely from the viewpoint of financial accounting in that the focus of the information sought from agencies is that which is related to the net cost of services and state of affairs of

an agency for a given period. A financial accounting system is designed to provide full-cost estimates that comply with generally accepted accounting principles. In contrast, management accounting serves to provide information concerning costs across different dimensions that are useful in supporting internal management decisions (Bromwich, 1988; Geiger, 1998; Cooper & Slagmulder, 1998). There is no legislative requirement for agencies to provide costing information across any other dimension other than at the aggregate level of outputs. The implication of this is that there is no need for agencies to develop sophisticated costing systems in order to meet this legislative requirement. While agencies are urged to develop cost efficiency and cost effectiveness measures the requirement is for these measures to be established at the output and outcome level only.

Consequently, unless there is an imperative for agencies to calculate costs at a greater level of detail they will likely take the option to report aggregated cost of services from agency financial accounting systems. The implication is that agencies costing-in-use is not likely to serve the purpose of improving its ability to understand the cost impacts of its service delivery alternatives.

Therefore, while an analysis of documentation lends support for theoretical principle, CM-2, assessments conducted from the viewpoint of financial accounting is likely to limit the ability of agencies to assess the efficiency and effectiveness of their service delivery at levels below outputs. Further limitations are placed on agencies who elect not to adopt more sophisticated costing methods, such as ABC, that enable them to conduct more detailed assessments of their performance.

7.2.2 Extent of Adoption of Proposed MAP

This research investigates the extent to which the proposed concepts developed in Chapters 2, that is, theoretical principles, PM-1 and PM-2 and the theoretical principles developed in Chapters 3, that is, CM-1 and CM-2, are adopted and applied by AGENCY, the Queensland Government agency selected for this research.

To seek evidence of the extent to which AGENCY adopts and applies the proposed MAP, namely, performance measurement and cost accounting, the researcher applies the following mixed-method approach:

- Analysis of AGENCY documentation; and
- Interviews with case study participants from two work units, BUNIT and CENTRAL.

If PM-1 is adopted and applied by AGENCY the researcher would expect that AGENCY's OBPM model begins with the identification of the government's desired outcome to which it contributes. It should then be followed by a description of the intermediate outcomes expected from its interventions and move across a series of shorter term outcomes, and strategies to create a map of the intervention (Brown, 1995 in Hernandez, 2000). In other words, the researcher would expect AGENCY to use techniques such as a change map and logic model in order to better define "what they are trying to accomplish, the early and intermediate outcomes that must be reached to be successful, how all of the outcomes will be measured, and what actions they are going to have to take to bring all of this change about" (Anderson, 2005: p 9).

If PM-2 is adopted and applied by AGENCY the researcher would expect to find AGENCY using multiple types and categories of performance measures that are suitable for measuring the success of outputs and activities in achieving desired outcomes. The types of performance measures expected relate to outcomes, outputs, activities and resources; while outcome indicators and measures of effect should be used to report progressive achievement of desired outcomes. Categories of measures should include quantity, quality, and cost.

In terms of investigating the adoption and application of CM-1 the researcher would expect to find evidence that AGENCY employs costing methodologies that include the use of costing information, cost pools and cost drivers to allocate costs to different cost objects so as to assess the cost of its service delivery.

To examine the extent to which CM-2 is adopted and applied the researcher sought evidence of the extent to which cost efficiency and cost effectiveness techniques are used by AGENCY to assist in the detailed analysis of its service delivery options.

7.2.2.1 Extent of Adoption of PM-1

The extent to which the theoretical principle PM-1 is adopted and applied by AGENCY is determined from a review of AGENCY's documentation and from the results of interviews conducted with participants from two work units, BUNIT and CENTRAL.

A review of AGENCY's documentation includes its Strategic Plan, Annual Report and MPS. These documents show consistency in its statements of outcomes and strategic objectives. The statements of expected outcomes are, however, long term in nature. AGENCY does not describe a pathway to achieve these long term outcomes. The result is an apparent gap in performance information. Without greater clarification of how changes in behaviours, attitudes or skills of its client group will result from receiving services from AGENCY, it will be difficult, if not impossible, for AGENCY to determine whether its interventions produced certain outcomes.

The extent to which PM-1 is adopted and applied by AGENCY was considered during interviews with selected participants from two work units of AGENCY, namely BUNIT and CENTRAL. The researcher did not expect interviewees to have difficulty identifying outcomes at a very broad conceptual level. As expected, for most managers it appeared relatively easy for them to describe the desires of the citizens of a community in broad terms. While managers from CENTRAL appeared more confident in defining outcomes, in all cases CENTRAL referred only to the long range nature of outcomes of AGENCY's programs. Their descriptions were fairly vague. Responses from BUNIT indicated that the main focus of BUNIT managers is generally on outputs with little consideration for the outcomes expected from delivering these outputs. With a focus on the long range outcomes, the very meaning of outcomes is rendered elusive. It is expected, therefore, that such elusiveness would see managers from both CENTRAL and BUNIT being less inclined to shift their focus away from outputs and towards short term or intermediate outcomes. However, when the principle PM-1 was posed to the

managers from these two work groups, most interviewees generally agreed with the principle of developing a logically linked 'chain of results'. Some, however, queried the degree to which it should or could be done.

7.2.2.2 Extent of Adoption of PM-2

A review of AGENCY's documentation and an analysis of data collected interviewing managers from two work units, BUNIT and CENTRAL, permit an assessment of the extent to which theoretical principle, PM-2 is adopted and applied by AGENCY.

AGENCY's Strategic Plan, considered to be the document that describes its key directions, is very scant on how it will measure its performance with only one activity measure (that is, the percentage of population aged 15-64 in programs) and one quality measure of output (that is, client satisfaction rates) being specified. AGENCY's Annual Report contains a broader range of measures, while the MPS identifies yet another set of indicators and measures, in more detail, which are used to monitor and report against the agency's delivery of outputs. The reason for there being a greater level of detail in the MPS is likely to be associated with AGENCY's need to comply with the Queensland Government's budgeting process.

Although each of AGENCY's documents detail different types of measures, the most common types, in the case of the MPS (since this document contains the most number of performance measures), include measures of inputs and measures of outputs. Input measures focus on funding levels provided to AGENCY. Cost measures are also utilised. Output measures focus mainly on quantity and quality measures. Measures of activity are not used. Without a focus on activities or processes AGENCY is unlikely to answer the question "Was it done right?" This finding is consistent with that noted by Wholey & Hatry (1992).

While the MPS of AGENCY contains, as measures of effect, longer-term measures of outcome they would seem to relate to those factors largely not within the control of AGENCY. The inclusion of such measures is likely to be unfair when AGENCY is judged on performance that is also influenced by external factors.

Analysis of interview data suggests that the performance measures largely used by AGENCY are quantity measures of input and output. Furthermore, the majority of interviewees identified measures contained in the MPS with little acknowledgement of the content of the Strategic Plan or the Annual Report. It is clear that BUNIT, the operational arm of AGENCY, is strongly focused on expenditures and only on the quantity of services being delivered.

BUNIT's management was generally of the opinion that decisions relating to the types of measures used by them are determined by CENTRAL, that is, a top-down approach is used. With such a top-down approach to developing measures there is a risk that performance measurement is viewed as a command of central management or as a reporting device to outside agencies. These views may potentially lead to a compliance-based attitude by those within BUNIT. It is apparent that managers, particularly at the operational level, regard the OBPM-in-use, including performance measurement in their agency, as being incapable of challenge.

Where performance information does not include a balanced set of different types of measures, it is doubtful that the level of detail is sufficient enough for a cause-and-effect relationship to be drawn in this case. The implication is that the information used for decision making will most likely be for the purposes of budget monitoring rather than as a result of rigorous evaluations of service delivery options.

7.2.2.3 Extent of Adoption of CM-1

An analysis of AGENCY cost reports identifies the types of costing information used by AGENCY and by its work units, BUNIT and CENTRAL. Cost information reported by CENTRAL to the executive management of AGENCY is largely on the basis of output performance. CENTRAL includes in these reports cost measures classified as efficiency and effectiveness.

Cost effectiveness measures include those such as the percentage of programs completed across all funding sources; and cost per the number of participants who successfully completed programs. It is arguable that these so-called measures of cost effectiveness, as reported by CENTRAL, are output-oriented rather than outcome-oriented as defined in Chapter 3. Furthermore, these measures are reported at the

aggregated level of output only. Cost measures associated with the activities undertaken by AGENCY are not reported.

BUNIT reports regularly against performance and cost targets to CENTRAL. Effectiveness measures against which BUNIT must report concentrates on the total cost per the number of successful clients; and satisfaction rate. Once again this information is best described as output-oriented and is reported at the aggregate level only. There is no evidence to suggest that BUNIT is required to collect or report on costs associated with key activities it undertakes in order to deliver outputs or products and services to its clients.

In addition to the report it submits to CENTRAL on costing information, BUNIT also compiles its own internal cost report. This internal cost report is produced for each directorate or business unit of BUNIT. A review of BUNIT's internal cost report indicates that cost information is limited to the output level. Once again, it is evident that costing information is not collected at levels of activity or process.

The principles proposed by this research argue that the ability of AGENCY to report on costs associated with activities or projects is dependent on the processes it uses for gathering costing information. The process used by AGENCY should include the identification of cost objects for which costs are attributed. The researcher would expect that if theoretical principle, CM-1 is adopted AGENCY would have different views of costs that it wants to measure (Geiger, 1999a). Such views would include costs of outputs, costs of activities, costs of projects, and the like. An examination of AGENCY's cost accounting system reveals that AGENCY collects costs only for a functional or departmental perspective.

The accounting system provides no other means for measuring different dimensions of costs. Further there is no evidence to suggest that AGENCY has developed various cost pools for the purpose of attributing indirect or corporate costs. With AGENCY producing only one output, AGENCY is capable of satisfying its legislative requirement to measure and report the total costs of output. It is apparent that there is no imperative for AGENCY to determine costs at a lower level of detail. This finding is confirmed through the interviews conducted: AGENCY collects cost

information only at the level of output. AGENCY's systems do not permit collection at any other view.

Costs are determined by simply "using the operating budget results". "Costs are determined at the aggregate level that comes from the financial system. AGENCY does not attribute indirect or corporate costs to BUNIT – BUNIT is charged for direct costs only. The indirect costs incurred by BUNIT are generally distributed to teams by the use of a pre-determined percentage allocation."

It is apparent that the primary focus of AGENCY and its work units is on the budget allocation until and unless further investigations are warranted. The implication of this is that costing is likely to be based on AGENCY's needs to secure sufficient resource allocations through budgeting processes of the Government.

7.2.2.4 Extent of Adoption of CM-2

AGENCY includes in its cost reports cost measures classified as cost efficiency and effectiveness. Cost efficiency measures are reported at aggregate levels. It is arguable that the measures of effectiveness, as reported by CENTRAL, are output-oriented rather than outcome-oriented. The limited selection of measures of effectiveness is unlikely to enable AGENCY to choose amongst alternative courses of actions in terms of their costs and their effectiveness in the attainment of government outcomes.

AGENCY claims to employ an ABC system to collect costs at aggregate levels of activities. Service delivery involves quite complex interactions with its clients with each type of interaction likely to have different cost implications. Determining costs at aggregate levels ignores these complexities. Interview responses suggest that the accuracy of the costing information entered into the ABC system by BUNIT is questionable. Consequently, it is doubtful that this information produced would prove useful to AGENCY. As such, it is not surprising that some doubt exists as to the level of commitment by BUNIT to developing this system.

In general, interviewees of BUNIT indicated that inaccuracies in costing information were common. Interviewees from CENTRAL did not appear to give much consideration to the accuracy or otherwise of the costing information since they

“simply look at the total”. While both BUNIT and CENTRAL interviewees considered that the information was accessible to them, BUNIT commented that although the information was available, the meaningfulness of it is questionable.

In suggesting the view that AGENCY’s concentration is mainly on managing expenditure items within the budget, CENTRAL commented that despite the fact that the agency has tried to develop better costing models, the fact is that AGENCY gets resources from the Government. AGENCY gets the money from the Government and they have to decide how it will use it.

The results suggest that it is unlikely that the costing information collected by AGENCY’s work units will reflect the full range of information needs of management operating within the OBPM environment under the Queensland Government’s MFO policy.

7.3 Recommendations

The key ingredients of the MFO policy are knowledge of what government programs are achieving as well as knowledge of the cost of service delivery. The framework developed in this research provides guidance to Queensland Government agencies in adopting appropriate MAP, that is performance measurement and cost accounting, which contribute toward achieving the objectives of the Government’s MFO policy.

The findings of this research suggest that, in the case of AGENCY, MFO is “essentially undertaken out of a sense of compliance rather than a belief in its virtues” (Moynihan, 2005: p 219). This is despite comments from interviewees indicating their need for more detailed and logical measurement of their performance achievements. Further to this, there is evidence to suggest that AGENCY does not currently determine the cost of service delivery in a way that enables it to assess appropriately the most cost efficient or cost effective means of delivery. This is despite the comments by interviewees, particularly those from BUNIT, that such detail is required if they are to know the cost at which their programs are delivered.

While the current MAP employed by AGENCY has certain advantages, AGENCY may experience several adverse effects that it should be aware of before it tries to enhance these practices. To guide the Queensland Government in meeting the objectives of its MFO policy and in adopting appropriate MAP to assist it to meet these objectives, this research provides the following recommendations:

1. Prior to proceeding with the task of improving its performance measurement and cost management, AGENCY should clearly identify the purpose for measuring performance (Behn, 2003). This may, in the first instance, reduce apparent frustrations of public sector managers, and secondly, justify the costs for possible extensions to the agency's MAP. When "disagreements exist about what constitutes a proper approach" to performance management, the simple availability of information is "not likely to effect an improvement" (Halachmi, 2005: p 258).
2. Where the need for extensive use of MAP is confirmed, AGENCY should focus on better tying its resources and activities to the government outcomes. By building these linkages and developing measures for each step in this chain, AGENCY will provide a richer "performance story" (McLaughlin & Jordan, 1999). This linkage will be more meaningful if AGENCY adopts, as Hatry (1999) suggests, appropriate documentation of its outcomes and importantly how these outcomes change over time and how the agency's outputs and activities contribute to these changes. This "performance story" (McLaughlin & Jordan, 1999) should be consistent throughout AGENCY's key strategic documents.
3. On developing this chain of results, AGENCY should develop and implement a more strategic selection of performance measures. Performance measurement processes "most likely to facilitate strategic thinking and enhanced performance may not be consistent with basic notions of accountability" (Halachmi, 2005: p 264). Hence, AGENCY should develop and implement a greater balance of measures that include measures of productivity, process and activity as well as measures of effectiveness. A broader range of performance measures can become an important tool in AGENCY's dialogue with its work units. Such dialogue can take account of local circumstances (de Bruijn, 2004: p 591).
4. To provide more meaningful costing information, AGENCY should extend its selection of cost objects for which costs are measured to include a greater

variety, including activities. Types of activities for which costs are collected and measured should cater for the high levels of complexity in how programs are delivered by SDCs. In this way, the relevance of costing information will be improved, and permit AGENCY to better analyse the efficiency and effectiveness of its service delivery and choose amongst various options.

5. AGENCY should foster an organisational culture that enables the critical assessment of how much its service costs and the effectiveness of its programs (Behn, 2003). AGENCY and its work units are unable to report on the cost of a particular service or activity simply because they are apparently not required to (Gianakis, 2002). AGENCY should focus on identifying and examining those factors, which will enhance the application of MAP necessary to support the MFO policy.

7.4 Limitations of the Research

A number of limitations to this research are recognised by the researcher. These limitations range from risks associated with the choice of methodology; the process for analysing data, including risks associated with insider research and researcher bias; and finally practical aspects of undertaking the study.

The first limitation of this research regards the difficulties inherent in relying on data collected from only one agency. There appears to be no defined criteria to determine the number of necessary cases to include in qualitative research. For example, Mintzberg (1979: p 585) states that it does not matter how small the number is; while Yin (1981) suggests that the number of cases could vary from one to eight and that while there may be no ideal number, Eisenhart (1989) considers that between four and eight cases is appropriate. In the first place, the number of cases selected for this research was driven by the scarcity of time and other available resources. Second, it is explained by the researcher's desire for depth in the study.

With this being said, however, a limitation of this investigation is that the results that are reported are a snapshot of time. Without doubt multi-agency longitudinal case studies provide the opportunity to achieve depth in the study. Such case studies allow the researcher to examine MAP across multiple organisational contexts and across several time periods (Frank & D'Souza, 2004). However, given the time

constraints of this research, a cross-sectional methodology rather than a longitudinal method was adopted. With this being said, a longitudinal method may have been more appropriate in this public sector environment where agencies largely remain in the implementation phase of MFO policy.

The second limitation recognised by the researcher relates to the process of conducting qualitative studies and in analysing the data. It is often argued that qualitative research suffers from a lack of trustworthiness (Chua, 1996). “The analysis of qualitative data are less structured and it is too easy to use less than all the relevant data or to extract data that suits the researchers established frame of reference” (Lillis, 1999: p 97). To limit the risk of simply “illustrating” (Humphries & Scapens, 1996: p 88) the use of MAP in AGENCY, the researcher adopted a structured and auditable approach to data analysis (Rowley, 2002). Transcripts were coded using the qualitative analysis package Ethnograph, v5.08 with the display design parameters being determined by the research questions and the theoretical propositions developed for this study (Miles & Huberman, 1994).

The process of analysing data faces a limitation that relates to the amount of data that makes it into the final thesis. The taped interviews were voluminous and required a significant amount of time to transcribe them, code them and prepare them for analysis (Lillis, 1999). A lot of the data remains in the Ethnograph database with much of it redundant. However, interviewee responses produced different interpretations of elements of the semi-structured interview. The researcher considers that these would not have been evident had surveys been conducted. The use of surveys may have limited the potential for critical dialogue (Humphries & Scapens, 1996).

In addition to employing a structured approach to data analysis, the mixed method design (Jick, 1979) of the research methodology and the use of triangulation attempts to resolve this problem. The design offers the prospect of enhancing confidence in the findings in which richer data is provided. This enabled a more complete and deeper understanding of the research questions and the theoretical principles investigated.

A limitation of this research relates to the fact that researcher is an insider: an employee of the Queensland public sector and is known to various employees within AGENCY. As such it was necessary to control for the reactive effects of the researcher's presence or activities on the phenomena being observed (McCall & Simmons, 1969: p 78). This risk was minimised through employing the services of an independent person to conduct the interviews. While this strategy reduced the risk of researcher bias, there is also the risk that the behaviour of the independent interviewer could become intrusive. This can affect the credibility of the research findings (Lillis, 1999). To limit this risk the researcher designed an interview guide to ensure complete and consistent coverage in each interview of the theoretical principles under investigation. The use of pre-specified questions and probes minimised the potential influence of the interviewer during the interviews and "reduced the tendency to resort to unplanned ad non-neutral probes" (Lillis, 1999: p 87).

Other limitations to this research include those of a practical nature. Such practical limitations include the following:

- Machinery of government changes resulted in the regular deployment of senior staff from one agency to another. During the time period in which this research was conducted, AGENCY was headed by three different Chief Executive Officers. Turnover in senior management may potentially result in a change in focus and/or purpose within the agency for MAP (Pizzarella, 2004).
- Gaining access to the various AGENCY sites proved difficult at times. The time limitations of participants resulted in interview scheduling problems where too many interviews were scheduled too close to each other. There were occasions where the location in which interviews were conducted was too noisy thereby causing difficulties in hearing the tape recordings.

While this research suffers from these limitations, the researcher contends that the credibility of the findings reported will be determined "through scrutiny of further research" (Lillis, 1999: p 97).

7.5 Implications for Practice

Research that follows a positivist approach does not generally have a concern for consequent practical implementation of the research outcome. Consequent practical implementation after the research is completed stands a better chance where the research approach takes an insider positivist approach. Insider researchers need to be aware of the political implications of their research. While insider research typically is seen as problematic in terms of academic rigour (Morse, 1998), it is because the insider researcher has a personal stake and substantive emotional investment in the setting (Alvesson, 2003) that she may be motivated to keep up the endeavour even when the research is completed. The insider researcher, having a stake in the research outcomes, may be in a position to negotiate a commitment to self-learning from the Queensland public sector.

A significant implication of this research is its potential to be practical in its guidance for AGENCY as it works towards developing clearer ties between its resources, activities, outputs, ultimately to the key government outcomes. While it appears that AGENCY is yet to engage in this kind of dialogue with its employees and stakeholders, the researcher has experienced success in building change maps and logic models as part of a Queensland Government approach to community renewal. The researcher's ongoing dialogue with key stakeholders, community groups, residents and cross-government agencies enabled the description of the pathways of change that clients would experience over time from the receipt of the Government's intervention strategies associated with its Community Renewal Program. Key progress markers along the pathway were identified, and permitted the agency to develop appropriate indicators and measures that would be used to report and monitor progress. Opportunities may exist for AGENCY to tap into the learnings gained from this Community Renewal Program.

As a by-product of this research, the researcher authored a set of guidelines that were published through OESR. These guidelines describe a methodology by which Queensland Government agencies may better meet the requirements of an OBPM under the Government's MFO policy. It describes, through examples, the framework which logically links outputs, performance measures and activities with achieving

agency objectives, which contribute towards government outcomes using performance indicators. Having broad application to all Queensland Government departments and agencies who want to manage their performance better, the guidelines encourage agencies to adopt this framework as appropriate to describe their programs and to document program successes.

7.6 Implications for Theory and Future Research

In the first place, within the continuing considerations of the nature of and approaches to research, the subject of insider academic research has received relatively little consideration (Coghlan & Brannick, 2005), and when it does, it is an argument against “going native” (Morse, 1998: 61). According to Morse the dual roles of investigator and employee are incompatible, and they may place the researcher in an untenable position. There exists an opportunity to conduct future research to examine the academic value that the insider researcher provides within the positivist research tradition.

Secondly, it is apparent from this research that opportunities exist to research the broader social, cultural and political contexts within which Queensland government agencies operate. The findings of this study suggest that the technical merits of the proposed MAP that should be adopted by the Queensland government agencies are not sufficient to motivate agencies to adopt them. Future research that gains a fuller understanding of this aspect seems to be a logical progression.

Thirdly, the findings of this research suggest that the adoption and application of the proposed MAP within AGENCY is limited. This is despite the finding that suggests support for the theoretical principles developed in this research. Future research is recommended to determine those attributes that might contribute to effective MAP within a government agency. Once determined, a model that measures the effectiveness of MAP-in-use may be developed. This may permit a means of tracking trends and comparing MAP-in-use within and across agencies.

Fourthly there are a number of performance management frameworks in use by Queensland Government agencies. For example, the Shared Service Initiative involving the implementation of shared services across the Queensland Government

uses the Balanced Scorecard (BSC) ¹⁰ as its performance management system. The Department of Emergency Services uses the Australian Business Excellence Framework (ABEF) ¹¹ to measure performance and implement business improvements. Both BSC and ABEF are designed to identify performance measures that jointly inform the agencies about its performance. Future research should enable an examination of the utility of these tools as strategic performance management systems.

The researcher's insights into the nature of future research are provided in the following sub-sections.

7.6.1 Future Research – Insider Academic Researcher within the Positivist Research Tradition

By insider academic research, Brannick and Coghlan (2007: 59) refers to research conducted by complete members of organisational systems in and on their own organisations. This is contrasted with researcher who temporarily joins an organisation for the purposes of conducting research (Adler & Adler, 1987). Future research should consider whether insider academic research provides the academic value that the researcher provides within the positivist research tradition.

Insider academic researchers are perceived to be prone to charges of being too close, and thereby, not attaining the distance and objectivity deemed to be necessary for valid research. However, the insider researchers pre-understanding of such things as “people’s knowledge, insights and experience before they engage in a research programme” (Gummesson, 2000: 57) applies not only to the theoretical understanding of organisational dynamics of the public service but also to the lived experience of the researcher’s own agency. Consequently, insider researchers may be in a better position to “elucidate meanings in events with which they are already

10 The balanced scorecard is a performance management system that provides feedback around internal business processes and external outcomes in order to continuously improve strategic performance and results. The balanced scorecard suggests that the organisation develops metrics, collects data and analyses it relative to four equally important perspectives (source: http://www.sharedservices.qld.gov.au/FAQs/index.shtml#_What_is_a_balanced%20scorecard?)

11 The Australian Business Excellence Framework is a performance management system that describes the essential elements of organisational systems in seven categories and based on twelve quality principles (source: www.decs.sa.gov.au/quality/files/links/Australian_Business_Excell.doc.)

familiar” (Brannick & Coghlan, 2007: 69). Furthermore, the insider researcher knows the legitimate and the taboo phenomena of what may be talked about and what cannot. They know what occupies colleagues minds. They know the critical events in the organisation and what they mean. Consequently the line of inquiry is uses internal jargon, draws on their own experiences to pose questions and are more able to follow up with replies. The benefit is richer data. It is apparent from this research that opportunities exist to readdress the views about the insider researcher positivist approach to research.

7.6.2 Future Research - Broader Social, Cultural and Political Contexts

The framework developed in this research provides guidance, which is theory based (Andrews, 2002 in Frank & D’Souza 2004), to Queensland government agencies in the adoption of MAP that enables it to meet the objectives of its MFO policy. While Humphrey & Scapens (1996) notes that a theoretical framework is an essential starting-point for any case study, equally as important as this is drawing out the issues that have emerged from the interpretation of these findings (Keating, 1995). As Keating notes, using the predetermined theoretical principles developed in this research as a lens through which the findings are interpreted ignores the organisational dynamics and tensions which may explain why the theory may not fit well. Given the apparent imbalance between the resources being expended by AGENCY on the development of MAP and the obvious limited practical appreciation of their technical capabilities by AGENCY, there is clearly a need to research and debate the understanding of, and the need for, MAP-in-use in the public sector (Humphrey & Scapens, 1996: p 100).

“Research is always an exploratory and continuous process” (Humphrey & Scapens, 1996: p 96) and as such the application of MAP in Queensland government agencies should involve further study of the broader social, cultural and political contexts within which Queensland government agencies operate. This will enhance the understanding of or explanation for the workings of MAP-in-use (Hopwood, 1983). It is apparent from this research that the technical merits of the MAP that should be adopted by the Queensland government agencies are not sufficient to motivate agencies to adopt them. Indeed it is apparent that the currently-adopted MAP may potentially lead to a compliance-based attitude amongst agencies (Poole, et al: 2000;

Moynihan, 2005) resulting in a strong rhetorical (Guthrie, 1998; Carlin, 2004) and ceremonial aspect (Lapsley & Wright, 2004) to the public sector.

Further to this, further research should investigate those contingent factors (Otley, 1980) critical for the Queensland government to address so as to successfully meet the objectives of the MFO policy. Previous studies have identified factors relating to

- Strategy (Shank & Govindarajan, 1993);
- Top management support (Green & Amenkhienan, 1992; Foster & Ward, 1994; Poole, et al, 2001);
- Central agency influence (Lapsley & Wright, 2004);
- Internal capacity and ability (Halachmi & Bouckaert: 1996);
- Desire for survival (Gurd, 2002); and
- Government funding mechanisms (Wholey, Hatry & Newcomer, 1994).

Since causal relationships between these factors and the take-up of MAP in the Queensland government are of importance, future longitudinal studies may observe the interaction of variables over time (Otley, 1980). Such studies will illuminate the processes by which MAP within the Queensland government develops and changes in response to these factors.

Such future research may require a close contact between the case study agencies and the researcher. In this way, the validity of future findings will be enhanced as findings are fed back to research participants and agency participants. When feedback occurs the agency may refine its own currently held theories and modify its practices (Argyris, 1976). The closeness of the researcher permits monitoring of these changes. Such modifications may potentially require refinement to the original theoretical principles developed in future research studies. Furthermore, this will provide for a richer and more informed basis by which agencies design and implement effective change management programs since it permits a better understanding of the ways in which MAP is embedded in the processes of the Queensland government (Hopwood, 1990).

7.6.3 Future Research to Assess the Effectiveness of MAP-in-use

The findings of this research indicate that the application of MAP is critical for achieving an outcomes-focus for the Queensland Government. The proposed MAP permits government agencies to track the cause and effect between an agency's outputs and its ultimate impact on the Queensland community and its residents. Where agencies are encouraged to adopt such practices, on what basis would their application be effective?

Much of the research on assessing effectiveness has concentrated on determining factors that affect the level of effectiveness rather than on assessing the overall effectiveness of the practice itself. For example, Foster & Swenson (1997: p 110-111) reviews a body of success measurement relating to the implementation of ABC each of which uses a single-question or a composite of questions to develop success measures. Their review includes the following:

- Measures based on the use of information in decision-making (Innes & Mitchell, 1995);
- Measures based on decision actions taken with information (Innes & Mitchell, 1995);
- Measures based on dollar improvements resulting from use (Krumwiede, 1998);
- Measures based on management evaluation as to the overall success (Shields & Young, 1989).

Within the discipline of management accounting the focus for determining effectiveness varies greatly. For example, a body of research focuses on implementation success of activity-based costing (Chenhall & Langfield-Smith, 1999); on the perceived benefits associated with the use of information (Cavalluzzo & Ittner, 2004); on the extent to which systems provide information (Mia & Chenhall, 1994); and on the process for determining the level of success of management accounting systems (Cinquini & Mitchell, 1998). In relation to performance measurement much focus has been on implementation success and failure of balance scorecards (Neely & Bourne, 2000); establishing criteria for successful performance measurement systems (McNamara & Mong, 2005); and

assessments as to which performance measurement systems are utilised (Byrne, Gordon & Jeffers, 2002).

The need to evaluate effectiveness and the difficulty in operationalising the evaluation process requires future research into designing a construct that enables measurement of effectiveness. Future research should explore the critical dimensions and attributes of MAP in order to develop a model of MAP effectiveness. What are the dimensions of MAP effectiveness? How can these dimensions be operationalised? The Cinquini & Mitchell (1998) approach to determining effectiveness recognises three aspects of management accounting practices, indicating a variety of evidence may be used to measure their effectiveness. These aspects are based on the key stages in the process, namely the production of management accounting information, the usefulness of this information, and finally the impact that MAP has on the organisation. In this sense, management accounting information flows through a series of stages from its production through its use and to its impact or influence on the organisation.

The development of such a model will enable the Queensland Government to benchmark agencies and to improve MAP, thereby accelerating the rate of change in agencies' MAP and ensuring the successful implementation of MFO.

7.6.4 Future Research to Reconcile the Use of Competing Performance Management Frameworks

Contingency theory holds that organisational effectiveness is the result of strategically fitting the characteristics of the organisation, such as components of a performance management system, to contingencies that reflect the situation of the organisation, such as a quality strategy (Burns & Stalker, 1961; Donaldson, 2001; Pennings, 1992).

There are many performance management tools from which any organisation can choose. A common theme in the 'newer' performance management models has been a determined attempt to tie performance metrics more closely to an organisation's strategy and long-term vision (Wongrassamee, Gardiner & Simmons, 2003). Two models the Balanced Scorecard and the Australian Business Excellence Framework have recently been adopted by some Queensland Government agencies. The

Balanced Scorecard approach systematically aligns an organisations mission and strategies into a comprehensive set of performance measures. The Australian Business Excellence Framework has been developed to recognise and develop learning opportunities to share best national (quality) practices. This model can facilitate organisations to assess themselves against the criteria of the model, first to understand their current position and then to use this benchmark to pursue continuous improvement. Queensland public sector agencies have been using one or both of these tools to facilitate rapid improvements within their agency.

Is there a linkage between these models? How do agencies actually apply these models in practice? How are they integrated into the OBPM process? In practice, few attempts have been made to apply the Balanced Scorecard to the Excellence Model (Wongrassamee, Gardiner & Simmons, 2003). More recently, however, Shulver & Lawrie (2007) suggests that significant differences exist in the ideas surrounding performance that underpin these two models, with the “Business Excellence Model lacking explicit strategic relevance to the organisation using it” (Shulver & Lawrie, 2007: p 8).

Future studies should investigate the existence of alignments, if any, between these models. Future research should also investigate their alignment with the OBPM process. Such models should be examined from a critical perspective with regard to the key elements of the OBPM process. Such elements relate to strategic planning; establishing strategies for delivering services; measuring, monitoring, reporting and evaluating performance, and providing for feedback loops. Lawrie, Kalff & Andersen (2005) compare the Balanced Scorecard with what they refer to as Results-Based Management. These authors argue that both of these models are converging with both concerned with understanding the relationship between an organisation’s activities and its outcomes.

7.7 Conclusion

This chapter summarised earlier chapters of this thesis and drew conclusions to the research problem and associated research questions. This research firstly determined the contemporary MAP that should be considered to meet the Government’s objectives for achieving public sector OBPM in Queensland under its MFO policy.

Secondly, this research determined the extent to which these MAP are applied by the Queensland public sector. These aims were reflected in statements of the research problem and research questions.

The key ingredients of the MFO policy are knowledge of what government programs are achieving as well as knowledge of the cost of service delivery. Research problem, RP-1, investigated the connectivity between the nature of the Queensland Government's MFO policy and the MAP required to support the objectives of the policy. Investigation of RP-1 found that a number of key theoretical principles should be applied by AGENCY in adopting and applying MAP required that support the objectives of the MFO policy. The principles that AGENCY should apply are:

1. Queensland public sector agencies should use change maps and logic models that links resources, activities, and outputs to a chain of outcomes so they may demonstrate that they contribute to the achievement of Government outcomes. This will enable them to meet the objectives of the MFO policy.
2. Queensland public sector agencies should measure, monitor and report performance by developing measures suitable for assessing the success of outputs and activities in achieving government outcomes and which fit into different categories of quantity, quality, effect and cost.
3. Queensland public sector agencies are able to determine the cost of service delivery when they apply the following techniques:
 - translation of general ledger accounts into cost elements;
 - identification of cost pools and cost drivers for the allocation of costs to different cost objects;
 - use of methods to distribute direct costs
 - use of sophisticated cost allocation methods; and
 - employment of contemporary costing methodologies such as ABC
4. Queensland public sector agencies are able to choose amongst alternative courses of action in terms of their costs when they employ techniques associated with measuring cost efficiency and cost effectiveness.

These principles guided the collection and analysis of data for the investigation of research problem RP-2 and the extent to which MAP is adopted and applied by Queensland public sector agencies. Findings from this research are summarised as:

1. AGENCY describes, although very briefly, how its activities and outputs lead towards the achievement of long term government outcomes. There is, however, an apparent gap in describing the links between AGENCY's output and government outcomes. It is not clear how outputs and activities contribute to the identified outcomes because the link appears far reaching. AGENCY does not measure progressive changes that might be expected for clients as a result of receiving products or services. The focus of AGENCY remains on measuring the delivery of outputs and on budget performance. It is clear that there is no depth of understanding amongst interviewees as to how they might achieve this.
2. In each of AGENCY's key documents a different set of indicators and measures are used to explain performance. Using different sets of performance indicators and measures can lead to different meanings of performance amongst the work units. The most common categories include measures of inputs and outputs. Input measures focus on funding levels provided to AGENCY. Cost measures are also utilised, although these are at aggregate levels. Output measures focus mainly on quantity and quality measures. Measures of activity are not used and measures of effect appear to measure results that are outside the control of AGENCY. Opportunities exist for AGENCY to integrate better the managers' understanding of their operating performance and the strategic direction of the agency.
3. Costing information is largely gathered from general ledger accounts with costs determined by using the operating results of AGENCY. The dimensions for which costs are measured are the output level and the business unit level. Cost objects are only measured for product or service type. AGENCY is unable to measure costs according to any other dimension. AGENCY calculates the cost of products and services at an aggregate level only. Without doubt AGENCY will experience difficulty in reporting costs at the level of detail required to make assessments of the most cost efficient ways of delivering its products or services or its activities. While AGENCY does allocate costs that are easily and directly traceable to its products or services, research findings show that AGENCY does

not apply a methodology for allocating indirect costs at any level below the output level of the agency. CENTRAL reported that the process of allocating indirect costs was not important to them, since they are only concerned with total costs of the AGENCY. AGENCY does, however, employ an ABC costing system. BUNIT is required to manually enter data in accordance with a pre-determined set of definitions for the varying types of costs. This data, however, is entered at aggregate levels only. Determining costs at such high levels ignores the complexities in activities.

4. It is the difference in the process of service delivery that must be considered so that informed judgements may be made about efficiency and effectiveness. While AGENCY has indicated that it does not measure cost effectiveness, efforts are made to determine cost efficiency. However, in the absence of costing information at a sufficiently detailed level, it is unlikely that these measures will adequately support decisions as to alternative service delivery strategies adopted by AGENCY and its work units. The data provided by the ABC model should inform AGENCY on the resources used by the various activities undertaken to deliver outputs. Numerous past attempts have been made to develop costing models. However, the conflict for AGENCY is that it receives funds from the government and this forces management to focus attention of how they are going to use these funds. This implies that the primary focus of AGENCY is on the budget allocation until and unless further investigations are warranted.

A number of previous studies report apparent failures by the public sector to implement OBPM effectively. Factors such as the agency culture and the support from management (Green & Amenkhienan, 1992; Foster & Ward, 1994; Poole et al., 2001); a lack of organisational commitment (Chelimsky, 1994; Reisman, 1994; Greiner, 1996); the lack of internal capacity to apply the new techniques (Halachmi & Bouckaert, 1996); and the belief that an orientation towards results will not alter the method of funding for their programs (Wholey, Hatry & Newcomer, 1994) all have significant impacts on the adoption and application of MAP. This research contributes to this literature by indicating that the “institutionalisation” of AGENCY is important in offering an explanation as to why MAP is not applied as recommended by the theoretical principles developed in RP-1. Concerns are raised about the degree to which MAP in the Queensland Government can change given

that the reporting for government decision-making remains unaltered and focused on traditional budgeting processes (Wildavsky, 1992; Carlin, 2004).

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APPENDIX A

Appendix A-1 Letters of Invitation to Participate

<Insert Date>

<Insert CEO Name>

[AGENCY]

<Insert Address of Agency>

Dear <Insert CEO Name>

PhD Research Project

Effective application of management accounting for achieving outcomes-based performance management reforms in Queensland

This project is being conducted as part of my PhD studies at Queensland University of Technology.

The aim of this research is to examine the extent to which Queensland Government agencies apply contemporary management accounting practices to achieve outcomes-based performance management reforms in Queensland. The underlying performance measurement and cost management principles and concepts that necessarily underpin the intent of these reforms and how these are implemented within agencies will be examined.

In this regard this research will examine the following:

- The extent to which strategic performance measurement and cost management is practiced by Queensland public sector agencies;
- The extent to which strategic performance measurement and cost management principles have guided the implementation strategies of agencies outcomes-based performance management framework;
- The responsiveness of the performance measurement and cost management systems in meeting the internal management needs of the agency's decision-makers.

I would like to invite [AGENCY] to participate in this research. The research will seek the opinions of relevant personnel from the agency on factors relating to the outcomes-based performance management initiatives and the consideration of contemporary performance measurement and cost management principles. Feedback from [AGENCY] will provide valuable information in determining the future direction of the agency's implementation strategies.

Participation in this project by personnel in [AGENCY] is entirely voluntary. To ensure the highest level of confidentiality the identity of participants will not be able to be determined from any documentation. On completion of the study, I will provide a report to [CEO]. This report will be based on the aggregated results with no individual responses reported.

This research has been cleared by the University Human Research Ethics Committee in accordance with the National Statement on the Ethical Conduct of Research Involving the Participation of Humans. You are of course free to discuss the participation of personnel

from the Secretary, University Human Research Ethics Committee by telephoning (07) 3864 2902.

If you have any questions regarding the research and/or findings, please feel free to contact myself, Veronica Hampson on xxxxxxxx, or Associate Professor Peter Best on xxxxxxxx.

Completing and returning the attached Consent Form indicates that you understand the contents of this letter and that you agree to take part in this study.

Thanking you for your consideration,

Veronica Hampson,
School of Accountancy,
Queensland University of Technology,
Gardens Point Campus,
Brisbane QLD 4001

<Insert Date>

Dear Staff Member,

PhD Research Project

Effective application of management accounting for achieving outcomes-based performance management reforms in Queensland

On behalf of the School of Accountancy, Queensland University of Technology, I would like to invite you to participate in a research project. This project is being conducted as part of my PhD studies at Queensland University of Technology.

The aim of this research is to examine the extent to which Queensland Government agencies apply contemporary management accounting practices to achieve outcomes-based performance management reforms in Queensland. The underlying performance measurement and cost management principles and concepts that necessarily underpin the intent of these reforms and how these are implemented within agencies will be examined.

In this regard this research will examine the following:

- The extent to which strategic performance measurement and cost management is practiced by Queensland public sector agencies;
- The extent to which strategic performance measurement and cost management principles have guided the implementation strategies of agencies outcomes-based performance management framework;
- The responsiveness of the performance measurement and cost management systems in meeting the internal management needs of the agency's decision-makers.

The research will seek the opinions of relevant personnel from the Agency on factors relating to the outcomes- based performance management initiatives and the consideration of contemporary performance measurement and cost management principles. Feedback from [AGENCY] will provide valuable information in determining the future direction of the agency's implementation strategies.

Please note that your participation in this project is entirely voluntary. Your involvement will entail participating in an interview. To ensure the highest level of confidentiality, the documentation from the interview(s) will be stored at the Queensland University of Technology and [AGENCY].staff will not have access to this material. On completion of the study, I will provide a report to [CEO] This report will only be based on aggregated results with no individual responses reported.

This study has been cleared by the University Human Research Ethics Committee in accordance with the *National Statement on the Ethical Conduct of Research Involving the Participation of Humans*. You are of course free to discuss your participation with the Secretary, University Human Research Ethics Committee by telephoning (07) 3864 2639.

If you have any questions regarding the research and/or findings, please feel free to contact myself, Veronica Hampson on telephone number xxxxxxxxxx, or Associate Professor Peter Best on xxxxxxxxxx.

Completing and returning the attached Consent Form indicates that you understand the contents of this letter and that you agree to take part in this study.

Thanking you for your time,

Veronica Hampson,
School of Accountancy,
Queensland University of Technology,
Gardens Point Campus,
Brisbane QLD 4001

Appendix A-2 Statement of Consent

<Insert Date>

Dear <Staff Member>,

PhD Research Project

Effective application of management accounting for achieving outcomes-based performance management reforms in Queensland

Contact Details:

Ms Veronica Hampson,
School of Accountancy,
Queensland University of Technology,
Email: aaaa@aaa.zz.au
Telephone: xxxxxxxxxxxxxxxxx

Statement of Consent:

By signing below, you are indicating that you:

- Have read and understood the covering letter about this project;
- Have had any questions answered to your satisfaction;
- Understand that if you have any additional questions you can contact the researcher;
- Understand that you are free to withdraw at any time nor comment;
- Understand that you can contact the research team if you have any questions about the project, or the Research Ethics Officer on 3864 2340 or ethicscontact@qut.edu.au if they have concerns about the ethical conduct of the project; and
- Agree to participate in the project.

Name: _____

Work Unit: _____

Signature: _____

Date: ____ / ____ / ____

Where you consent to participate in the project, please tick the box if you do not wish to have your interview recorded.

APPENDIX B

Appendix B-1 Thematic Conceptual Design

<p>GENERAL-EXPERIENCES MAP-Experiences MAP-NegativeExper MAP-NoExperience MAP-PositiveExper MFO-Experiences MFO-NegativeExper MFO-NoExperience MFO-PositiveExper</p>	<p>PM-TECHNIQUES PM-Confidence PM-Link-to-Goals PM-Reports Role-of-Reporting PM-Types Chain-of-Results ChoiceOfMeasures ImportantMeasures PreferredMeasures PM-Use-of-Information PM-Believability PM-Conciseness PM-Integrity PM-Purpose PM-Relevance PM-Scope PM-TargetSetting PM-Understandable PM-Reliance OPINION-ALLOCATIONS NegativeOpinion PositiveOpinion</p>	<p>PM-EFFECTIVENESS IMPACT-PM PM-Accountability PM-Benchmarking PM-DecisionEffect PM-Evaluation PM-OrgLearning PM-Report&Monitor PRODUCTION-PM PM-DataQuality PM-DataAccess PM-DataAccuracy PM-DataCurrency PM-DataTimeliness PM-Innovation PM-Integration USEFULLNESS-PM PM-InfoQuality PM-Believability PM-Conciseness PM-Integrity PM-Purpose PM-Relevance PM-Scope PM-Understandable</p>	<p>CM-TECHNIQUES CM-AccessToCosts CM-OtherInformation Line-Items Timeliness-of-Cost CM-Link-to-Goals Cost-Allocations CM-Allocation-Method Indirect-Costs Cost-Objects Cost-Dimensions CostObject-Types Important-CostObject CONFIDENCE-IN-COSTS Cost-Accuracy Cost-Reliability Reliance-on-Cost Timeliness-of-Cost</p>
<p>CM-IMPACTS CM-Accountability Costing-Improvements Cost-Monitoring Cost-Reporting CM-Levels-of-Mgt Role-of-CostReport</p>	<p>OVERALL-EFFECTIVENESS Overall-CM-Effect Overall-PM-Effect</p>	<p>MAP-IMPACTS MAP-Accountabil MAP-Benchmarking MAP-DecisionEffect MAP-Evaluations MAP-OrgLearning MAP-Reporting</p>	

Appendix B-2

Interview Guide

Interview Date: _____

Start Time of Interview: _____

Agency: _____

Finished Time of Interview: _____

Name of Interviewer: _____

Name of Interviewee: _____

Interviewee's Position: _____

Interviewer Observations

Describe the venue for the interview:

Were there any interruptions during the interview? Did anyone else enter the interview venue?

Intonations: _____

Degree of certainty or doubt: _____

Apparent value orientation: _____

Interviewer Observations

Irony, Humour, etc: _____

Length of pauses in response: _____

Attitudes of surprise or expectability: _____

Digression or focus?: _____

Other observations: _____

How often did the interviewee need to refer to the Glossary of Key Terms?

Introduction

General introduction of researcher

"Good morning. I am _____ (introduce self). I am assisting the research by conducting interviews. This interview is being conducted to get your input about the implementation of the performance measurement and/or cost management practices that you have been involved in. I am especially interested in any problems you have faced or are aware of and recommendations you have."

Technical introduction

This study focuses on the application of MAP to support objectives of MFO. More specifically questions will probe:

- *The way performance measures are established and used;*
- *The outcomes from using performance measurement data and your reliance on this information*
- *The way costing methods are developed and used;*
- *Your reliance on costing information and*
- *The way your agency's responsibility accounting system works*

To assist you in this interview, I can provide you with a Glossary of Key Terms that will be discussed during this interview.

Would you have any objections to the interview being taped? This would allow me to listen carefully and gain the greatest benefit from the interview. It also ensures that the data collected from this interview is accurate. As explained in my letter, this research ensures confidentiality: no data will be associated with any individual or agency. My interest is in the patterns across the agencies, and not in particular cases.

Background

To begin the survey I'd like to ask you some questions specifically about your role in the agency and your background. This will help us better understand the data.

SECTION A:

1. Select (tick) an option from the following that best describes the division or area of your agency within which you work:

Executive

Corporate/Support

Service Delivery

2. Select (tick) an option from the following that best describes the role you undertake within your Agency.

Executive Leadership

Management

Team Management

Project Management

Administration Support

Finance Support

Corporate and Performance Reporting

Budget Support

Project Work

Other (please specify) _____

3. Select (tick) an option from the following that best describes the classification level of the position you hold in your Agency.

SES

SO2 – SO1

A07 – A08

A05 – A06

A03 – A04

A01 – A02

Other (please specify)_____

4. Select (tick) an option from the following that best describes the length of time that you have been employed in the Queensland Public Service.

- | | | |
|--------------|---------------|--------------------|
| 0 - 1 year | 1 - 3 years | 3 - 5 years |
| 5 – 10 years | 10 - 15 years | More than 15 years |

5. Select (tick) an option from the following that best describes the length of time that you have been employed in this Agency.

- | | | |
|--------------|---------------|--------------------|
| 0 - 1 year | 1 - 3 years | 3 - 5 years |
| 5 – 10 years | 10 - 15 years | More than 15 years |

6. Select (tick) an option from the following that best describes the length of time that you have performed your current role in this Agency.

- | | | |
|--------------|---------------|--------------------|
| 0 - 1 year | 1 - 3 years | 3 - 5 years |
| 5 – 10 years | 10 - 15 years | More than 15 years |

7. Select (tick) an option from the following that best describes your level of educational attainment

- | | |
|---------------------------------|------------------------------------|
| Secondary Schooling | Senior Certificate (or equivalent) |
| TAFE accredited Certificate | TAFE Diploma/Advanced Diploma |
| University undergraduate Degree | Post Graduate Certificate/Diploma |
| Masters Degree or higher | Other (please specify) _____ |

8. Do you possess formal accounting qualifications?

Yes

No

(go to Question 9)

(go to Question 10)

9. Please answer this Question if you answered “Yes” to Question 8 above.

Select (tick) an option from the following that best describes your level of educational attainment in the vocational area of accounting:

TAFE accredited Certificate

TAFE Diploma/Advanced Diploma

University undergraduate Degree

Post Graduate Certificate/Diploma

Masters Degree or higher

Other (please specify) _____

10. Have you undertaken professional development to support the role you currently perform in your Agency?

Yes
(go to Question 11)

No
(go to the end of the survey)

11. Please answer this Question if you answered “Yes” to Question 10 above

Select (tick) an option from the following that best describes the source of the professional development that you have undertaken.

Seminars offered by other Government Agencies

Training offered by other Government Agencies

Seminars offered internally by your Agency

Training offered internally by your Agency

Seminars offered by external organisations

Training offered by external organisations

12. *Please answer this Question if you answered “Yes” to Question 10 above*

Select (tick) an option from the following that best describes the frequency with which you undertake professional development to support the role that you currently perform within your Agency.

less than 1 per year

1 per year

1 - 3 times per year

more than 3 times per year

13. *Please answer this Question if you answered “Yes” to Question 10 above*

Have you recently (i.e. within the previous year) undertaken professional development in the area of performance measurement?

Yes

No

14. *Please answer this Question if you answered “Yes” to Question 10 above*

Have you recently (i.e. within the previous year) undertaken professional development in the area of cost management?

Yes

No

General Questions

I'd like to ask you some general questions in relation to your experiences about MFO and about your experiences with management accounting

Q1 What are your experiences from the implementation of MFO in your agency?

Q2 What are your experiences from the implementation of MAP practices in your agency?"

Part 1 - Performance Measurement

I'd now like to ask you some questions about your experiences and opinions about the performance measurement practices in your agency

Q3 Do you use performance data to evaluate the performance of your agency?

Q3.1 Do you have a copy of a performance report that I could look at to help focus the interview? May I keep a copy of this report for referring to as I transcribe this tape?

(Ask for explanation of the report given, if required)

The following set of questions relate to your opinions on the usefulness of performance measurement data:

What types of performance measures do you use to evaluate the performance of your Institute?

[Code=PM-Scope
Code=PM-Techniques]

Q4.1 How would you define the major outcomes that your Institute is contributing toward?

Q4.1.1 What steps do you think your Institute needs to take to work towards achieving these outcomes? How would you tell when/if you have been successful?

Probing questions:

How do you know if particular clients are “better off” as a result of receiving your products or services? Explain what you think would best describe “better off”.

Q4.1.2 Does your Institute collect information that might help inform it about whether or not it is achieving these outcomes? If it did, what measures do you think would be useful? Do you think the current measures that are reported help do this?

Q4.2 Has the Institute established clear strategic objectives through planning processes that clearly describe how it will contribute to these major outcomes and what outputs (products or services) that it will deliver to achieve the desired performance levels?

Q4.3 Some people think it is important to develop a “chain of results” for developing performance measures. What do you think about that?

Q4.4 Do you collect performance information about the following:

Outputs (i. e., products or services) to be delivered

Activities undertaken to deliver these outputs

Resources required to undertake these activities

Target groups or client groups to who outputs are delivered?

Q4.5 How do you go about deciding on which measures to use? Is there a particular method for deciding on and developing performance measures that you would prefer to use? Why?

Q4.6 Does your Institute use some other form of hierarchy of measures that somehow are logically linked? If so, How do you go about categorising these?

[Code=Understandability

Code=PM-Techniques]

Q4.7 With respects to the reports that we are looking at, what sort of meaning do you get from them? Briefly explain what these measures tell you with respects to the performance of your area? What do they tell you about the performance of your Institute?

[Code=PM-Relevance]

Q4.8 What are the most important and relevant measures that you use?

Q4.8.1 Why are these important to you? Why are these relevant to your Institute? What would happen if you didn't use them?

[Code=Purpose]

Q4.9 Explain how these performance measures inform the Institute on whether it is meeting its business objectives.

Q4.9.1 Briefly explain why you use these performance measures.

Q4.9.2 Given the measures that you now use, would there be different measures that you would like to use now given your experience?

[Code=Conciseness]

Q 4.10 Are there times when you need to search for additional information or drill down further to explain the information provided to you through the reporting of these measures?

Q4.10.1 How well do you rely on the formation? Is there anything you need to do to add to the level of quality of information?

[Code=Integrity]

Q 4.11 Do you believe that the information you receive from these measures is sufficiently correct to satisfy inform you on progress of your area's performance?

[Code=Believability]

Q4.12 How confident are you that the performance measures reported in this report reflects the true performance of your area? Explain what would improve their credibility. Are there times when you need to examine these measures more closely in order to accept them as a true indicator of the performance of your area? Are you able to tell of an occasion when you needed to do this? What were your experiences?

The following set of questions relate to your opinions on how performance measurement data is produced:

Q5 Is the data easily available to you on a regular basis?

[Code=Access]

Q5.1 How do you access these reports? Who else can access them? Do you make these reports available to staff in your area? Briefly explain the process that you use to discuss the contents of these reports with your staff?

Q5.2 How are these developed? Does “performance reporting”, “finance” or “planning” employees work them up? Or are they developed together in an integrated way? Describe how this is done?

[Code=Timeliness]

Q5.3 Do you get performance measurement information on a timely basis? Is it received within sufficient time to allow you to respond quickly?

[Code=Currency]

Q5.4 How often is the data in this report updated?

Q5.4.1 Do you receive the information often enough for your needs? How regular would you like to receive the report?

[Code=Accuracy]

Q5.5 How confident are you that the performance measurement information contained in this report is correct and accurate? Have you had experiences when it hasn't been correct? Explain your experiences?

[Code=Innovation]

How confident are you that the performance measurements techniques that your agency uses are “best practice”? Explain why you think this?

Q5.6.1 What processes does your agency undertake to encourage an exchange of ideas between business units about the development of or use of new or different performance measures?

Q5.6.2 What happens in your agency in the situation when a new performance measure is conceived? Explain the process for sharing these ideas? If you come up with a new performance measure how would you go about exploring it further and perhaps having it implemented?

[Code=Integration]

Q5.7 How is the data assembled? Is it collected through a computerized system?

Q5.7.1 With respects to the performance measures reported in your report, are they integrated with your agency’s costing system?

Q5.7.2 Explain how the data is collated?

The following set of questions relate to your opinions on how performance measurement information has impacted on your role in this Institute:

Q6 Just focusing for a moment on this report, how do you develop targets for these measures?

[Code=Benchmarking]

Q6.1 Are targets generated from looking at past trends?

Q6.2 Describe for me how this is done

Q6.3 Do you access external information (such as other Institutes) to help set targets? Do you use these to set targets?

[Code=Reporting]

Q6.6 What is the lowest management level that performance measures are reported?

Q6.1 Can you describe the performance reporting below that level of management, for example, team level?

[Code=OrgLearning]

Q6.8 Explain how well the performance measurement system that your agency uses contributes to understandings of how practices inform the achievement of goals and objectives of the agency and its contribution towards achieving Government outcomes and priorities?

Q6.8.1 What other roles do these performance reports have for you, other than to take corrective action? What do you consider the major role that these reports play?

[Code=DecisionEffect]

Q6.11 Briefly describe the types of decisions that you are required to make for in your current role?

Q6.11.1 Explain how you think the use of these performance measures improves the quality of management decisions that you need to make?

Thank you very much. I'd like to now ask you some questions relating to the cost management practices of your agency.

Part 2 – Cost Management

Q9 Do you use costing data to evaluate the performance of your agency?

Q9.1 Do you have a copy of a cost report that I could look at to help focus the interview? May I keep a copy of this report for referring to when transcribing this interview?

(Ask for explanation of the report given, if required)

Q10 What kind of objects does your agency cost? *(Ensure the Interviewee understands the meaning of cost object – refer to the Glossary of Terms)*

[Code=CostObjects]

Q10.1 Does your agency systematically report on costs attributed to outputs? Activities? Client group? Geographic region? Other?

Q10.2 What do you consider the most important cost object for your purposes? Why?

Q10.3 What do you consider the least important cost object for your purposes? Why?

Q10.4 What do you consider more important? Managing your budget allocation or monitoring the costs of your deliverables? Line item expenditure items or costs of objects? Which do you use more often? Why?

Q10.5 Explain how you get costing information on these different dimensions of costs? Q10.4a How is data collected on these different dimensions?

Q10.6 Some people think it is not important to determine costs below the output level. What do you think about that?

Q10.7 Some people think that it is not important to determine costs at the output or outcome level and that determining the costs of activities is more important. What do you think about that?

Part 2 – Cost Management

Q11 How does your agency distribute costs to the products services or outputs that you are interested in? Explain the process.

[Code=CostAllocation]

Q11.1 Can you identify particular strengths in the way your agency allocates indirect costs? What about weaknesses?

Q11.2 Some people think it is sufficient to use simple techniques such as percentage allocations or survey-of-time-spent techniques to decide on the allocation formulas. What do you think about that?

Q11.3 How confident are you that the costs reported are a reflection of the true costs? Why?

Q11.4 What would you do to improve the accuracy or reliability of cost information?

Q11.5 Have you identified any aspects of the costing system, which needs to be changed or improved? What sorts of improvements would you be looking for? What would you like to see included in the cost reports?

Q11.6 Are you aware of potential adverse consequences of the way your agency measures costs? How significant are they? How would you suggest managing these consequences?

Q12 With respects to the reports that we are looking at, what sort of meaning do you get from them?

[Code=Access]

Q12.1 Is the costing data easily available to you on a regular basis? Are line expenditure items easily available to you on a regular basis?

Q12.2 How well do you rely on the cost information? Is there anything you need to do to add to the level of quality of information?

Q12.3 Are there occasions where you need to access other information to support what is reported in these reports? Explain the circumstances behind these occasions

Part 2 – Cost Management

[Code=Reporting]

Q13 What is the lowest management level that costs are reported?

Q13.1 Can you describe the cost reporting below that level of management?

Q13.2 How are managers held accountable for performance against cost targets?

Q13.3 What happens when you become aware that cost performance is not on target? Do you have an example to illustrate what happens?

Q13.4 Explain how well the costing system that your agency uses contributes to understandings of how practices inform the achievement of goals and objectives of the agency and its contribution towards achieving Government outcomes and priorities?

Thank you very much for this. I'd now like to ask you a few questions about the general impact of management accounting practices within your agency.

Part 3 Impact of MAP

Q14 What do you consider to be the major impacts of these techniques on your role within this agency?

[Code= Evaluation]

Q14.1 Explain how you might evaluate the efficiency and effectiveness of service delivery in your area, including the extent, quality and benefit of services delivered as well as the cost of delivery?

Q14.1 Are there occasions when you experience conflict between trying to improve the effectiveness of what you deliver and the costs of delivering that product or service?

Q14.2 Can you use an example to help me understand how you deal with this conflict?

Q14.2 Explain how you might go about reviewing your activities to ensure that you are achieving your performance targets? What are your experiences in trying to redesign processes for better achievement of performance?

Q14.3 Can you identify particular strengths of these techniques in helping you monitor and control performance and costs? What parts of the system gives you the best impact?

[Code=Benchmarking]

Q14.4 Some people think that performance and cost monitoring and controlling is useful for benchmarking purposes? What do you think about that?

Q14.5 Do you compare the performance of your area/Institute with other organisations, such as other Institutes? Explain how you use this information.

Q14.6 Are there occasions where you need to access other information to support what is reported in these reports? Explain the circumstances behind these occasions.

Part 3 Impact of MAP

[Code=DecisionEffect]

Q14.7 How has the use of performance and costing information aided your decision-making effectiveness? In what areas do you think you make better decisions?

Probe for costing information

Q14.7.1 Do you consider that your agency has improved its performance in terms of the cost of delivery? What do you think the big improvements have been? Where do you think further improvements may be gained? *Probe further for* - Cost reduction? Process cost information? Cost effective and efficient ways to deliver on client needs? Operational Control?

Q14.7.2 Some people think that too much focus on cost information at levels lower than output and major activity level is too expensive. What do you think about that? Are there some situations where you think that performance and cost information is not essential?

[Code=Accountability]

Q14.8 How are managers held accountable for performance against non-financial targets and cost?

Q14.8.1 Explain what might be the consequences for you should you not meet targets established for your area? Explain how you might address this problem?

Q14.8.2 Are you held more accountable for blow-outs in budget or blow-out in costs of service delivery? Why do you think this is the case?

These last 2 questions seek to summarise your opinions about the MAP in your Institute:

Q15 Overall, how effective would you say your performance measurement system is in improving your decision-making abilities, in monitoring and evaluating the performance of your area and in determining how the performance of your area contributes toward the Institute's objectives?

Q16 Overall, how effective would you say your cost management practices are in improving your ability to monitor and evaluate the effectiveness and efficiency of the services/products that your area delivers and how those products/services contribute toward the Institute's objectives?

***We've reached the end of the interview. I'd like to thank you very much for your time and cooperation.
Should I need to, may I get back to you to clarify issues that we discussed today?***

Appendix B-3 Demographical Data

Demographical Field	Demographical Value
Division	<ul style="list-style-type: none"> <input type="radio"/> Executive <input type="radio"/> Corporate Services <input type="radio"/> Service Delivery
Role	<ul style="list-style-type: none"> <input type="radio"/> Executive Leadership <input type="radio"/> Management <input type="radio"/> Team Management <input type="radio"/> Project Management <input type="radio"/> Administration Support <input type="radio"/> Finance Support <input type="radio"/> Corporate/Performance Reporting <input type="radio"/> Budget Support <input type="radio"/> Project Work <input type="radio"/> Other
Level	<ul style="list-style-type: none"> <input type="radio"/> SES <input type="radio"/> SO2 – SO1 <input type="radio"/> A07 – A08 <input type="radio"/> A05 – A06 <input type="radio"/> A03 – A04 <input type="radio"/> A01 – A02 <input type="radio"/> Other
QPS-Length	<ul style="list-style-type: none"> <input type="radio"/> 0 – 1 year <input type="radio"/> 1 – 3 years <input type="radio"/> 3 – 5 years <input type="radio"/> 5 – 10 years <input type="radio"/> 10 – 15 years <input type="radio"/> More than 15 years
Agency-Length	<ul style="list-style-type: none"> <input type="radio"/> 0 – 1 year <input type="radio"/> 1 – 3 years <input type="radio"/> 3 – 5 years <input type="radio"/> 5 – 10 years <input type="radio"/> 10 – 15 years <input type="radio"/> More than 15 years
Role-Length	<ul style="list-style-type: none"> <input type="radio"/> 0 – 1 year <input type="radio"/> 1 – 3 years <input type="radio"/> 3 – 5 years <input type="radio"/> 5 – 10 years <input type="radio"/> 10 – 15 years <input type="radio"/> More than 15 years
Education	<ul style="list-style-type: none"> <input type="radio"/> Secondary Schooling <input type="radio"/> Senior Certificate (or equivalent) <input type="radio"/> TAFE accredited Certificate <input type="radio"/> TAFE accredited Diploma/Advanced Diploma <input type="radio"/> University Undergraduate Degree <input type="radio"/> Post Graduate Certificate/Diploma <input type="radio"/> Masters Degree or higher <input type="radio"/> Other
Accounting Qualification	<ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No
Account-Education	<ul style="list-style-type: none"> <input type="radio"/> TAFE accredited Certificate <input type="radio"/> TAFE accredited Diploma/Advanced Diploma <input type="radio"/> University Undergraduate Degree <input type="radio"/> Post Graduate Certificate/Diploma <input type="radio"/> Masters Degree or higher <input type="radio"/> Other

Demographical Field	Demographical Value
Professional Development	<input type="radio"/> Yes <input type="radio"/> No
Professional Development Type	<input type="radio"/> Seminars offered by other Government Agencies <input type="radio"/> Training offered by other Government Agencies <input type="radio"/> Seminars offered internally by your Agency <input type="radio"/> Training offered internally by your Agency <input type="radio"/> Seminars offered by external organisations <input type="radio"/> Training offered by external organisations
Professional Development Frequency	<input type="radio"/> Less than 1 per year <input type="radio"/> 1 per year <input type="radio"/> 1 – 3 times per year <input type="radio"/> More than 3 times per year
Professional Development Performance Measurement	<input type="radio"/> Yes <input type="radio"/> No
Professional Development Cost Management	<input type="radio"/> Yes <input type="radio"/> No

Appendix B-4 Glossary of Terms

Acronyms

MAP Management Accounting Practices

MFO Managing for Outcomes

Managing for Outcomes

The Queensland Government has adopted a strategic performance management framework that includes a range of management improvements. Collectively labelled “*Managing for Outcomes*” these initiatives aim to improve the management of government assets and the basis on which resource allocation decisions are to be made. Thus, it will enable the Government to increase the quality and efficiency of service delivery. The MFO initiative involves funding agencies for outputs (services and outputs) rather than inputs (resources consumed in their production); and improving the quality of performance information available.

Performance Measurement: The development of a matrix which describes the logically connects activities undertaken within departments and agencies to the final long-term outcomes desired by Government. It involves the categorisation of measures through a hierarchy that collects data about resources used (inputs), activities undertaken (processes), services and products delivered (outputs), and the transformation of outputs into societal impacts (outcomes).

Performance Measures - measures of how well programs and agencies are working. In simple terms, they describe “how much” came out of an output or “how well” the output was delivered. They are usually measured in terms of the volume of work accomplished, such as the numbers of classes taught, etc

Government Outcomes - the end result that the Government wants to achieve for the Queensland community as a whole such as “skilled and knowledgeable Queenslanders”

Activities, in simple terms, are the key things that staff “do” or are engaged in under program or initiative. They include all steps necessary to produce the program outputs

Chain of Results – Logical linkages established between Outcomes, Outputs, Activities and resources.

Outputs are the direct products of activities and in simple terms, describe “what” came out of an activity. Outputs usually represent the key products or services delivered by a Government Department.

Contemporary Cost Management:

All costs incurred through the consumption of resources in the delivery of an output or activity. It involves the distribution of direct costs and the rational allocation of indirect costs to outputs, activities, outputs or other cost objects in proportion to the amount of

service or benefit received. Cost management permits an assessment of both cost efficiency and cost effectiveness, which requires all costs incurred through the consumption of resources in the production and delivery of an output or activity to be assessed in terms of a non-financial metric of output or activity.

True cost – all costs incurred in delivering a product or service and includes all direct and indirect costs

Cost Report – a management report detailing costs incurred in delivering a program, an activity and the like

Cost Object – cost objects represent different views that the organisations wants to collect costs about such as costs by output, costs by activities, costs by project, and the like.

Dimensions of Cost – the different views that management may wish to take on costs and include such things as costs per client group, costs per geographical region, and the like

Indirect Costs – Costs that are not directly traceable to the product or service being delivered to a client. They include overhead costs.

APPENDIX C

Appendix C-1 Demographic Data of Participants

PARTICIPANT	DIVISION	ROLE	LEVEL	QPS-LENGTH	AGENCY-		EDUCATION	ACCT-		PROF- DEVEL	PD-		PD-PM	PD-CM	UNIT	POSITION
					LGT	ROLE-LENGT		QUALS	ACCT-EDUC		PD-TYPE	FREQ				
1	SERV DELIV	MANAGEMENT	A07-A08	>15 YRS	0-1 YR	0-1 YR	U/DEGREE	No		Yes	INT - TRN	1-3 TIMES	No	No	BUNIT	F/ DIRECTO
2	SERV DELIV	MANAGEMENT	A07-A08	10-15 YR	1-3 YRS	1-3 YRS	U/DEGREE	No		Yes	SEM - EXT	>3 TIMES	No	No	BUNIT	MANAGER
3	SERV DELIV	MANAGEMENT	A07-A08	>15 YRS	>15 YRS	1-3 YRS	MASTERS	No		Yes	INT SEM	> 3 TIMES	No	No	BUNIT	OPS MGR
4	SERV DELIV	MANAGEMENT	A07-A08	>15 YRS	1-3 YRS	1-3 YRS	POST GRAD	No		Yes	ALL	1 TIME	No	No	BUNIT	F/ DIRECTO
5	CORP SUPP	TEAM MGT	A07-A08	>15 YRS	10-15 YRS	1-3 YRS	U/DEGREE	No		Yes	SEM - EXT	1 TIME	No	No	BNIT	F/ DIRECTO
6	SERV DELIV	MANAGEMENT	A07-A08	1-3 YRS	1-3 YRS	0-1 YR	TAFE CERT	No		Yes	SEM - INT	<1 TIME	No	No	BNIT	OPS MGR
7	EXECUTIVE	EXEC LEADE	S02-S01	5-10 YRS	0-1 YR	0-1 YR	U/DEGREE	Yes	TAFE DIP	Yes	SEM - EXT	1-3 TIMES	No	No	BNIT	DIRECTOR
8	CORP SUPP	MANAGEMENT	A07-A08	10-15 YR	10-15 YRS	3-5 YRS	TAFE DIP	No		Yes	SEM - INT	1-3 TIMES	No	No	BNIT	MGR FIN
9	SERV DELIV	MANAGEMENT	A07-A08	1-3 YRS	1-3 YRS	0-1 YR	U/DEGREE	No		Yes	SEM - INT	1-3 TIMES	No	No	BNIT	OPS MGR
10	EXECUTIVE	PERF REPRT	A07-A08	>15 YRS	>15 YRS	3-5 YRS	TAFE DIP	No		Yes	ALL	> 3 TIMES	Yes	Yes	CENTRAL	MANAGER
11	CORP SUPP	PERF REPRT	S02-S01	10-15 YR	10-15 YR	1-3 YR	MASTERS	No		Yes	ALL	1-3 TIMES	Yes	Yes	CENTRAL	DIRECTOR
12	CORP SUPP	MANAGEMENT	S02-S01	10-15 YR	10-15 YR	1-3 YRS	U/DEGREE	Yes	U/DEGREE	Yes	INT - TRN	1 TIME	No	No	CENTRAL	DIRECTOR

Demographical Data of Participants

Management Position	Roles	Number of Participants	Number of Years Employed	
			With QPS	With Work Unit
Directors	Corporate Support	2	10-15 years	1-3 years
Director	Executive	1	5-10 years	<1 year
Unit Director	Service Delivery	3	>15 years	<1 year
				1-3 years
				>10 years
Unit Director	Corporate Support	1	>10 years	>10 years
Operations Managers	Service Delivery	2	>10 years	1-3 years
				>10 years
Manager	Executive	1	>10 years	>10 years
Manager	Corporate Support	1	>10 years	>10 years
Manager	Service Delivery	1	1-3 years	1-3 years
Roles and Years of Employment of Participants				

Education Attainment Level	Number of Participants
Masters degree of higher	2
Graduate Diploma	1
Undergraduate Degree	6
TAFE Diploma	2
TAFE Certificate	1
Education Attainment Levels of Participants	

Number of Times	Number of Participants
Once per year	4
1-3 times per year	5
> 3 times per year	3
Frequency of Professional Development Undertaken	