Is strategy being implemented through projects? Contrary evidence from a leader in New Public Management

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Abstract

This paper reports on the effectiveness of the project management and investment frameworks in the State of Victoria. It finds project management and investment practices comparable to best practice but also finds 100 billion dollars invested in projects over the past decade without any evidence of improvement in strategic goals. It concludes that there may be systemic deficiencies in our project management and investment frameworks. It suggests that deficiencies in the way projects are currently selected and managed limit the capability to realise strategic goals. Future research to develop programme management, portfolio management and project governance is recommended to increase the likelihood that strategy will be implemented.

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1. Introduction

This paper reports on the effectiveness of the project management and investment frameworks in the State of Victoria. This is of general interest because the State of Victoria is considered to be one of the international leaders in New Public (Greve and Hodge, 2007). New Public Management is relevant to both the private and public sectors because it is an approach that applies private sector management techniques to the public sector to improve efficiency and outcomes (Barzelay, 2001).

The Victorian Auditor-General’s Office (VAGO) believed that the Victorian project management and investment frameworks were at the forefront of industry practice but were concerned that the same problems were being found in project performance audits. They commissioned the research in this paper after new developments were pioneered in Australia in the area of IT project governance (AS8016, 2010; HB280, 2006; ISO 38500, 2008). Their objective was to evaluate the Victorian project management and investment practices against the academic literature and new Standards to assess the likelihood of systemic weaknesses. The research questions reported in this paper are:

• Project success—are projects undertaken within the Victorian Public Sector to realise strategic goals (as suggested by the new project governance standards)?
• Are the Victorian Public Sector project management and investment frameworks comparable to best practice? Are there any systemic weaknesses?

These research questions are of interest to the project management community because the research is being conducted in what is expected to be an exemplary case. If any deficiencies are found in the State of Victoria it is likely that these deficiencies will be more widespread. The first question is also of general interest because it provides a context to explore whether projects are
undertaken to implement strategy in practice and whether strategies are actually being implemented.

This paper will proceed by summarising the literature that will be used to evaluate the project management and investment frameworks in the State of Victoria. The methodology to gather data will then be discussed. The results will then be presented. The results will be discussed and finally conclusions will be made to summarise the key findings.

2. Literature

The literature review will provide the context to evaluate Victoria’s project management and investment frameworks. First the difference between project management success and project success will be reviewed to highlight the relationship with top management and strategy. Then the strategy literature will be summarised to provide a context for the review of portfolio management, programme management and project governance.

2.1. Project management success vs. project success

The issue of IT project failure remains unsolved despite fifty years of intensive effort (Sauer 1993, 1999). If the widely quoted Standish statistics are to be believed, the failure rate has actually deteriorated in the last eight years (Standish, 2003, 2009). The evidence is quite strong that the issue is not confined to IT projects. Lovallo and Kahneman (2003) describe disappointing results with all types of large capital projects in areas as diverse as manufacturing, marketing, and mergers and acquisitions. However, the issue is seldom addressed because acknowledgement of failure can be career limiting (Morrill, 1995). Managers and practitioners alike tend to hide the issue by taking advantage of ambiguous definitions of success and failure and simply declare projects to be successful in terms of the criteria in which it did not fail (Falconer and Hodgett, 1999; Rocheleau, 2000).

When the distinction is made between project success (realisation of expected outcomes) and project management success (on-time on-budget on-quality), it becomes clear that project success is more important (Baccarini, 1999; Cooke-Davies, 2002; de Wit, 1985). For example the construction of a cycleway (or any physical asset) could be considered a project management success if it is completed on-time and on-budget, but if the objective is to reduce congestion, it could only be a project success if people actually use the cycleway and congestion is reduced. Project management success is not sufficient for project success and evidence suggests that they are only weakly related (Markus et al., 2000). Further evidence suggests that fewer than a third of projects deliver any business benefits (Willecocks, 1994; Young, 2006) and perhaps as few as 10% of projects actually deliver what was promised (Clegg et al., 1997).

To reduce project failure the conventional wisdom is to focus on project methodologies, user involvement, high level planning and high quality project staff (Young and Jordan, 2008). However project methodologies are now in widespread use (Clegg et al., 1997) but the high failure rates have persisted. This suggests that the conventional wisdom is inadequate.

Two leading project management organisations, APMG and PMI, recently commissioned major studies and concluded that although the project management tools were quite mature their value could not be conclusively demonstrated (Thomas and Mullaly, 2008). The APMG study found that the major deficiencies were not with their methodologies but in areas such as project governance and top management support (Sargeant, 2010).

Top management support has long been acknowledged to be important but project management texts have little if any guidance for top managers. Much of the advice for top managers is little more than lip-service and exhortation (Emery, 1990; Izzo, 1987; Jarvenpaa and Ives, 1991; Lederer and Mendelow, 1988; Schmitt and Kozar, 1978). This is a major problem because top management support has recently been confirmed as the most important factor for project success and the implication is that much of our current research and practice may be misdirected (Young and Jordan, 2008). Few top managers consider project management to be an issue of direct concern (Crawford, 2005). Top managers seem far more interested in corporate governance, strategy and personal power (AICD, 2009; Donaldson and Lorsch, 1983; Morrill, 1995).

Conceptually, the difference in emphasis between top managers and project managers should not be a major barrier. The top management concern with strategy is closely aligned to the concept of project success: the realisation of expected benefits. The management literature increasingly understands projects in the context of implementing strategy (Kwak and Anbari, 2009) and the project management literature strongly advocates projects be initiated aligned to or delivering strategy (Jamieson and Morris, 2007; Pellegrinelli and Bowman, 1994). When projects fail, one would expect that strategy is being compromised. However in practice, top managers share almost nothing in common with the concerns of project managers who tend to focus narrowly on project management success (on-time on-budget). The contrast might be analogous to the captain of a ship peering into the distance with a telescope trying to communicate with a scientist peering into a microscope. The top management strategic view seen through a telescope has almost no overlap with the view of project managers peering down their microscope.

2.2. Project management

The discourse of the project management community (textbooks, researchers and practitioners) emphasises ‘microscopic’ concerns related to on-time on-budget on-quality delivery (Kerzner, 2009; Morris and Pinto, 2007; PMI, 2000). The project management discipline has been accused of having a naïve ‘magic bullet’ type of thinking where it is assumed that benefits will flow automatically when projects are completed (Markus and Keil, 1994). Project managers and researchers alike have been accused of being unable to accept the limitations of project management (Baccarini, 1999; Currie and Galliers, 1999; Thomsett, 1989).

To some, it appears as if project managers promote an unwieldy plethora of tested and ineffective methodologies and fail to engage top managers as a result (Checkland, 1981; Strassmann, 1995; Young and Jordan, 2008).
The project management discourse has slowly embraced the need for users to be satisfied and for benefits to be delivered (Cooke-Davies, 2002; Peppard et al., 2007; Ward et al., 1996). A recent development through a high profile EPSRC funded study in the UK ‘Rethinking project management’ suggested that the most promising directions for future research were towards five themes: complexity, projects as social process, value creation rather than product creation, broad rather than narrow conceptualisation and reflective practitioners rather than trained technicians (Winter et al., 2006). It remains to be seen whether these themes will influence the broader project management community and whether they go far enough to overcome the lack of attention on top management concerns such as whether strategic goals are being achieved.

There are three possible exceptions to this overall pattern: portfolio management, programme management and project governance. None of these three developments is yet part of the mainstream project management discourse (Crawford et al., 2006) but project governance may be in the early stages of entering the top management discourse (CSA, 2010).

Before programme management, portfolio management or project governance is reviewed, we must examine the strategic context.

2.3. Strategy

Strategy is the unifying concept between all these themes. Strategy has long been a top management concern and is now becoming part of project management language and practice (Artto et al., 2008; Srivannaboone and Milosevic, 2006; Williamson, 1989). One leading project management methodology suggests that strategy is the main reason why projects should be initiated (Office of Government Commerce, 2007, 2009b). However, there is little guidance about how strategy gets translated into projects (Jamieson and Morris, 2007). A review of the literature suggests that the problem arises because the project management understanding of strategy does not correspond to the way strategy is now practiced.

Project management concepts assume a functionalist rationalist model of the world and are orientated mainly around the need to plan (Artto et al., 2008; Pellegrinelli, 2010). This view was shared in the original corporate strategy literature which assumed that the strategy process was highly ordered and neatly integrated (Mintzberg, 1978) and the focus was on “...determination of basic long-term goals ... adoption of courses of action and allocation of resources necessary for carrying out these goals” (Chandler, 1962). There is no single unifying theory of strategy with many strategic schools of thought (see for example Elfring and Volberda, 1994; Mintzberg et al., 2005). The strategic planning view tends to dominate the strategy literature with typical approaches emphasising analysis of either external markets or core competencies. The Boston Consulting Group popularised a technique to analyse products to identify ‘stars’, ‘cash cows’ or ‘dogs’ and prioritised investment to products that could take the most advantage of the experience curve and achieve cost-leadership. This approach was refined by Porter (2004) to recognise two additional strategic positions in addition to cost-leadership: differentiation (e.g. competing based on attributes other than cost) and focus (on the needs of niche groups). The resource-based view followed because the strategic positions identified could not always be captured or defended with the limited resources on hand, and analysis refocussed on identifying and strengthening core competencies (Hamel and Prahalad, 1994). This classic understanding of strategy is characterised by top management strategy-makers formulating from on high and delegating to subordinates to implement from lower down.

However, the classic planning-based approach to strategy has been largely discredited (Mintzberg, 1978). Thirty years of experience has shown that it is almost impossible to predict discontinuities or accurately predict the future state of the operating environment. Strategy formulators are therefore often not fully informed and the environment is too unstable to implement plans without frequent reformulation. Leading strategy consultants admit that as few as 10% of their strategies are implemented (Kiechel, 2010).

An adaptive approach has arisen as an alternative and strategy is understood as active waiting to respond to volatile markets (Sull, 2005). Most recently an entrepreneurial approach has also emerged to create strategy through design because analytical approaches only work when the future resembles the past (Carlopio, 2009). As far back as 1978, Mintzberg concluded that strategy formulation is more often a learning process, where implementation feeds back new information, intentions get modified en route, and the strategy has to emerge as it adapts to changing environmental conditions. Martin (1997) develops this concept to describe the necessity of having a holistic interplay between strategy and implementation.

If intentions get modified and strategy emerges as environments change, it is not always easy to assess project success. New and changing circumstances of stakeholders may lead to changed measurements and changed weighting of benefits for success. Attributing success to specific projects is not always clear cut because the benefits are usually realised many years after a project has been completed. These issues of performance measurement mirror more general dilemmas in theories of public service improvement (Ashworth et al., 2010).

Very few of these insights are shared in the view of strategy most commonly held by project managers. Project manager’s perspectives on strategy are largely focussed around the concept of aligning the project with a pre-existing documented strategic plan. This discredited approach emphasises strategic planning, where strategy is formulated by top managers and key goals are ‘cascaded down’ to projects that were implemented by project managers. Project and portfolio managers have a passive role in formulating strategy and there is little or no recognition of the entrepreneurial role they must play in adapting strategy to respond to emergent events (Artto et al., 2008; Jamieson and Morris, 2007). We will now examine the concepts of portfolio, programme and project management in this context.

2.4. Portfolio management

Portfolio management (PPM) is one potential bridge between top management and project management. However, current
PPM practice has more in common with the discredited static approaches to strategy than the adaptive or emergent approaches (Young et al., 2010).

The conceptual foundations of portfolio management focussed on the selection of financial investments to reduce risk and increase returns (Markowitz, 1952). These concepts were then applied to the selection of projects (McFarlan, 1981) particularly for new product development (Cooper et al., 1999; Ghasemzadeh and Archer, 2000; Killen et al., 2008). The concept of project portfolio management (PPM) developed and was marketed commercially on the basis of being able to reduce risk and increase returns on a portfolio of project investments (Computer Associates, 2009).

PPM is sometimes justified in the context of selecting the optimal portfolio of new products for development (Cooper et al., 1999; Jamieson and Morris, 2007). The UK Office of Government Commerce (2009b) has an alternative definition ‘...the totality of an organisation’s investment in the Changes [projects and programmes] required to achieve its strategic objectives’. The portfolio may be implemented in part of the organisation, such as a Division, or may be enterprise-wide, or they may be nested, in that there may be both a divisional and enterprise-wide portfolio. However, as Foti (2002) suggests, regardless of the scale and scope of the portfolio and the location in which it occurs within the organisation, the use of project portfolios allows organisations to make the most of their resources and allow the organisation to achieve its strategic purpose.

This justification for PPM is far less convincing when applied to the implementation of strategies unrelated to new products and questions have been raised on whether PPM adds any value at all. One study reports that fewer than 33% of organisations using PPM use it to diversify and reduce portfolio risk (Reyck et al., 2005). Thiry and Deguire (2007) find that PPM, because it is meant to deal with fairly stable environments, can only be effective if combined with programme management which is meant to deal with more turbulent environments and emergent strategies. They add that PPM project selection and risk management practices are not complementary to top managers’ non-linear strategic decision-making processes.

2.5. Programme management

Programme management may have more potential to bridge the discourse between top management and project management because it is meant to adapt to change and be a tool for strategy implementation (Artto et al., 2009). The main strength is the recognition that programmes of projects rather than individual projects are generally needed to realise strategic goals (Pellegrinelli, 1997; Thiry, 2004). However, programme management is an immature discipline (Stretton, 2009).

Literature in the programme management domain is somewhat limited, with very few published books on the topic and all commenting on the dearth of available guidance. Milosevic et al. (2007) explain that programme management originated in the U.S. aerospace and defence industries where it was kept a secret. They add that it was only in the 1980s as people moved did programme management take hold in the commercial sector and even then it was sometimes only the term being misapplied by project managers to the management of large or multiple projects.

Authors such as Milosevic et al. (2007), Office of Government Commerce (2007), PMI (2006), Reiss et al. (2006), and Williams and Parr (2004) lead this field, but very few, such as Pellegrinelli (2008), emphasise the link between programmes and strategy. The Office of Government Commerce (2009b) exemplifies this later aspect by defining a programme as ‘...a temporary, flexible organisation created to coordinate, direct and oversee the implementation of a set of related projects and activities in order to deliver outcomes and benefits related to the organisations strategic objectives’. The focus, in this instance, is the implementation of the identified change [project or program] in a strategic context. The only other well known methodology Standard for Program Management is more product oriented and focuses more on developing complex new products (PMI, 2006).

However, some have argued that these mainstream programme management methodologies are too strongly influenced by the project management tradition because practices have been codified too rigidly (Lycett et al., 2004). Pellegrinelli (1997) finds mainstream approaches programme-centric with responsibility for the realisation of benefits assigned to business managers outside a narrowly defined programme (CCTA, 2000). He adds that the required level of documentation works against the need to challenge and redefine the programme as new information comes to hand and believes current guidelines underemphasise the need to adapt to the strategic context and ensure strategic benefits are actually realised. He concludes that the current codification into a common set of transferable principles and processes are inadequate and reports that practitioners find many of the guidelines either not useful or not make sense.

2.6. Project governance

Project governance is a very recent development providing high level guiding principles for top managers. Some guidance (AS8016, 2010; ISO 38500, 2008) is consistent with well accepted corporate governance guidelines but some guidance appears to be little more than an attempt to mandate organisational structures to bring project management concerns to the attention of top managers (Office of Government Commerce, 2009a; Reve and Levitt, 1984; Ruuska et al., 2011; Williams et al., 2010). The principle-based approach provides a strong linkage between project management and top management because it focuses on the actions boards of directors and top managers need to take to realise strategic goals. One example of this is a handbook published by Standards Australia emphasising six key questions that boards of directors and top managers need to address to influence projects to succeed (HB280, 2006):

1. What [strategic] benefits are being targeted?
2. How much [organisational] change is required to realise these benefits?
3. Who has the passion and influence to drive this change?
4. How will success be measured?
5. Is the project culture right [for unexpected issues to be raised and resolved]?
6. Is the project on track [to realise the expected benefits]?

Early studies have found that directors respond well to the principle-based approach in these Standards because it corresponds to the style of corporate governance guidelines and allow directors to use their judgement to evaluate organisational processes (Young, 2008). However there is a low awareness of principle-based project governance in the top management, researcher and practitioner communities. Principle-based advice is being largely overwhelmed by the majority of authorities emphasising prescriptive guidelines to address project management concerns and organisational structures to allocate accountability for individual projects without emphasising how to influence projects to succeed in delivering corporate strategy (Marnex and Labuschagne, in press; Ruuska et al., 2011; Weill and Ross, 2004; Williams et al., 2010). One exception to this is Chartered Secretaries Australia which has included a revised project governance module in its training for company secretaries (CSA, 2010).

3. Methodology

This research is ideally suited to the case study research methodology, where the State of Victoria represents a single exemplary case and the individual Agencies represent embedded units of analysis (Yin, 2003). The research questions on the role of projects and the adequacy of investment frameworks are contemporary events over which researchers have little or no control and the boundaries between project outputs and organisational strategic outcomes are not clearly evident. It is possible that a causal relationship may not exist hence the survey method is not appropriate because there is no clarity on what might be the relevant variables. Historical or archival analyses would miss the possibility to take advantage of multiple sources of evidence such as direct observation and interviews. The descriptive case study has particular value because it has the potential to increase relevance (Davenport and Markus, 1999) and because it is often an effective means to communicate contributions to practice (Benbasat and Zmud, 1999). Case studies also have the advantage of being able to utilise both qualitative and quantitative data (Yin, 2003). Rigour will be maintained through three mechanisms: (1) a basis for generalisation, (2) the quality of researcher, and (3) the data gathering procedures and protocols.

The first mechanism, the literature review, provides theoretical propositions which the case will assess (Yin, 2003). The broad propositions are that ‘strategy is implemented through projects’ and ‘best-practices such as project, programme and portfolio management and project governance facilitate the implementation of strategy’. Analytic generalisation will be possible by comparing Agencies within the State of Victoria, an example of best practice and if issues are found, it will be reasonable to conclude that the issues will be more wide spread.

The quality of researcher provides some assurance that the right questions have been asked and that the interpretations are valid. In this case, the authors have demonstrated their ability to conduct and publish case study research in high quality academic journals. All the researchers have held senior management positions outside academia and have firsthand experience of how strategy is formulated and implemented in practice. One researcher also has very detailed knowledge of the Victorian public sector as a senior public servant.

The procedure and protocols for data collection and analysis, provide assurance that all the relevant information was gathered and that the method of data gathering was rigorous and repeatable. In this case the procedure was extremely simple. The Australian public sector has high levels of transparency and information is generally publicly available. The key in researching this sector, is to know what is available, where to find it and how to interpret it. This inside information was provided by collaborating with VAGO.

VAGO has an intimate knowledge of the workings of government and knew that the majority of information needed to perform the research was publically available. They recommended data gathering simply through internet based searches of Victorian Government Agency websites to access publicly available information. VAGO provided a detailed briefing of the most relevant documents for review and provided an analyst to help locate and interpret additional documents on request.

In addition to this, the research was sponsored by a VAGO senior manager. The senior manager provided an initial briefing and then ongoing access to both himself and his direct reports for feedback on findings. The sponsor also arranged and attended interviews with the two most senior employees within the Victorian Agencies that oversaw the most project investments and had the most insight into the Victorian project environment. The sponsor also arranged for VAGO senior management to formally review the research findings. This level of assistance and review provides the research with a high level of internal validity.

The documents that were accessed and reviewed are listed below. These documents are publicly available and it is expected that equivalent documents will be available in other jurisdictions, British Commonwealth jurisdictions in particular. Most of the key documents were found on one website (Treasury) and the other key documents were easy to find on Agency specific websites. This suggests that it may possible to repeat this study in other jurisdictions without assistance. However, it is suggested that future research should collaborate with a public sector insider to some degree to confirm equivalent documents have been identified.

- Treasury budget papers detailing funding by project:
  - Victorian 2004–05 budget information paper
  - Victorian 2005–06 budget information paper
  - Victorian 2006–07 budget information paper
  - Victorian 2007–08 budget information paper
  - Victorian 2007–08 budget information paper
  - Victorian 2008–09 budget information paper
  - Victorian 2008–09 budget update

- Treasury mandated investment methodologies
  - Methodologies detailed whole-of-Victorian-government requirements on:
    - How to apply for funding
    - Reporting requirements for project portfolios, benefits realisation, and monitoring and maintenance of assets.
4. Results

The results will present data to evaluate whether the project management and investment frameworks are adequate within the Victorian public sector. The first section will answer the first research question and show that in Victoria projects are funded to achieve strategic goals. The second section will present evidence that the strategic goals have not been realised despite more than a decade of intensive project investments. The third section will review the project management and investment frameworks in use and concludes that they correspond to best practice. The discussion will then explore whether there are any systemic deficiencies in the project management and investment frameworks in use.

4.1. The role of projects within the Victorian public sector: to implement strategy

Reports from the Victorian Department of Premier and Cabinet, Victorian Treasury and VAGO stated that broad strategic objective of the State of Victoria is to create an environment that increases the capacity of the State to compete in the context of globalisation. The 2008–09 Budget stressed that their long term commitment to project investments would have to be maintained and strengthened to meet the strategic objective of the State because long term trends exacerbated by the global financial crisis (GFC) were particularly challenging.

... economic reform focussed on the long term is vital... to be competitive in a global market... in the face of an aging population and climate change (2008–09 Budget Update).

The emphasis on economic reform implies a strategic role for projects. Fig. 1 illustrates the scale of the investment over the past decade. It shows that around $2B had been invested annually on projects since 1999 and that the investment had doubled to $4B pa since 2006 with significant additional spending in 2009–10 to mitigate the effects of the GFC.

Formal vision statements have guided effort since 1992 and the 10-year vision released in 2001 expressed the vision in terms of a number of measurable outcomes (Victorian Department of Premier and Cabinet, 2009). Some of these outcomes had evolved over time, but many of the strategic goals had remained consistent over the entire period of review. The most stable of the strategic goals were to:

- Reduce crime by 5% and have Victorians feel safer,
  - reduce the rate of growth of the prison population
  - reduce re-offending
- Improve health services
  - reduce waiting times (emergency, elective and dental services)
- Improve the level of education
  - increase literacy and numeracy,
  - have 90% of young people complete Year 12 or equivalent,
  - increase adult participation in vocational education and training
- Improve roads and public transport
  - reduce commuting times,
  - increase public transport use (in Melbourne) from 11% to 20% by 2020,
  - increase the proportion of freight transported by rail from 10% to 30% by 2010
- Improve the environment
  - significantly improve the health of Victoria’s rivers by 2010,
  - reduce Melbourne’s water usage by 15% by 2010

4.2. Evaluation of the effectiveness of projects within the Victorian public sector

This section starts by summarising the reported data to estimate the amount invested in projects, revises this estimate based on the analysis of an anomaly and then evaluates the effectiveness of the project investment. This section is surprising because evidence could not be found to demonstrate that projects had contributed to the realisation of strategic goals despite a clear intention that they should and over a decade of aggressive project investment.
4.3. Estimate of project investment

Victorian Budget Papers show that Victorian public sector projects were funded by the Treasury as either Asset Investment projects or Output Initiatives.

- Asset investments include buildings, roads, bridges and IT. Asset investments are capitalised, depreciated over time and need to be maintained.
- Output initiatives are projects that do not need to be capitalised. For ease of comprehension, they will be referred to in this paper as ‘soft-projects’ and include organisational restructuring, process changes, training, marketing, etc.

Table 1 summarises Victorian Budget Paper data to show Treasury funded projects for 2007–08 and 2008–09 by Agency. Public non-financial corporations were excluded from the summary. It shows that the amount spent on projects varies from year to year. Projects in some Agencies, such as Transport and Water (Sustainability and Environment) constitute between 34 and 50% of the total budget. In other Agencies, such as Health (Human Services), Justice and Education, projects accounted for only 11–17% of the budget. On average it appears that projects account for 19–21% of the budget. It also appears that a similar amount is spent on soft projects (Output initiatives 8–11%) as on traditional infrastructure projects such as roads, bridges and IT (10–11%).

4.4. Revised estimate of project expenditure to account for unreported project expenditure

The reported project expenditure seemed low as a proportion of the total budget and an attempt was made to reconcile projects reported by the Victorian State Treasury and the projects described in the strategic plans of each Agency. It was found that there were many more projects described in Agency strategic plans than the number reported by the Treasury. Interviews with senior executives within the Victorian Public Service and managers within the Department of Education revealed that the majority of projects are undertaken with internal resources and paid for through operating budgets, and are therefore neither Asset Investments nor official soft-projects. Extra Treasury funding was only sought when projects required significant additional resources. When extra funding is provided, asset investments are monitored and reported very closely by the Treasury. However, whether funded externally or internally, soft-projects are left to each individual Agency and are not separately reported at a state level. These internal projects will be described as ‘unreported’ in this paper because there is no easy way to identify how much of the operating budget has been used for internal Agency projects.

The methodology limited the capacity to accurately assess the scale of these unreported projects. Based on interviews, a comparison of the projects reported to the Treasury and the projects listed in Agency strategic plans and direct experience of several public sector Agencies it was estimated that at least the same amount is spent on internally funded and unreported strategic projects as on Treasury funded soft projects. Feedback from a senior manager within VAGO suggests this estimate although controversial, was probably realistic:

‘…I agree with all your observations … although [Treasury & Finance] would be a lot more circumspect - however they would admit all the issues you have raised in an off-line or informal conversation’.

The implications for 2008–09 are modelled in Table 2. The amount funded by the Victorian Treasury for asset investments and soft projects (output initiatives) remains at $3708m and $2608m as reported in Table 1. An additional $2571m is estimated to have been spent on strategic internal projects (shown as Column a’). This suggests that the total amount spent on soft-projects (columns c and a’) is likely to exceed the amount spent on capital assets (column b) and the total amount spent on projects is between 19 and 27% of the total budget.

It was reported earlier (Fig. 1) that the amount invested on asset investments had been steadily increasing over the past decade. Total budgets had also been increasing over same period and it seems reasonable to assume that the ratios shown in Fig. 2 remained roughly consistent (11% on asset projects, 8–16% on soft projects). The implication is that the Victorian government spends around $10b on projects every year and has spent over $100b on projects over the past decade.

4.5. Evaluation of effectiveness

To evaluate the effectiveness of the project expenditure we need to assess whether the targeted strategic goals are being realised. This basis for evaluation is justified because the evidence has shown that a very significant amount of project investment is to support strategic goals and these strategic goals have been largely stable. However, despite the traditional high transparency of the public service and the reputation of the State of Victoria as a leader in New Public Management, no systematic reporting against strategic goals was found.

Annual reports generally reported different performance measures from year to year. It appears that performance measures are selectively reported to highlight areas where an Agency had improved in the reporting period. In some cases it was possible to extract and compare performance measures when they were reported in multiple years but no instances were found of a strategic goal reported consistently across the entire period of study.

Alternative studies were sourced to assess whether strategic outcomes had been achieved. The most rigorous study was performed by VAGO to assess whether the Education Department had met their strategic literacy and numeracy goals (VAGO, 2009). The findings showed that literacy had remained static with improvements in only one area (early childhood) and

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2 One of the agencies, Planning and Communication, were reported to have spent 71% of their operating budget on Treasury Funded projects. It was thought unlikely that they would have spent a further 8% on internally funded strategic projects so no estimate was made for any additional strategic project expenditure.
Numeracy had decreased across all age groups. These results can be seen visually in Figs. 2 and 3. Based on Table 2, the implication is that Education has spent around $10 billion on project work over the past decade without improving key strategic goals such as literacy or numeracy. Fig. 2 suggests that literacy levels have actually declined over the past three years and Fig. 3 suggests that numeracy has declined over the past five years.

This poor strategic result is particularly significant because the Education Department has the third largest project expenditure within the State of Victoria and because it has taken the lead among educational departments within Australia (e.g. leading the development of a national curriculum). The Department of Education has not directed all its project expenditures over the decade to only improve literacy and numeracy, but it seems reasonable to assume that a significant proportion was focused on improving one of the highest priority goals of an educational department. The result is extremely disturbing because direct observation suggests that education department staff are more than competent, work extremely hard and follow high quality project management methodologies.

Table 1
Project expenditure by government Agency reported to the Victorian State Treasury.

<table>
<thead>
<tr>
<th>Department</th>
<th>2008-09 budget data /$m</th>
<th>2007-08 budget data /$m</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total budget</td>
<td>Asset investment</td>
</tr>
<tr>
<td>Planning &amp; Commun.</td>
<td>451</td>
<td>213</td>
</tr>
<tr>
<td>Transport/Infrastructure*</td>
<td>4345</td>
<td>1756</td>
</tr>
<tr>
<td>Sustainability &amp; Env</td>
<td>1305</td>
<td>303</td>
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<tr>
<td>Treasury and Finance</td>
<td>235</td>
<td>11</td>
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<tr>
<td>Primary Industries</td>
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<td>Premier &amp; Cabinet</td>
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<td>13,102</td>
<td>480</td>
</tr>
<tr>
<td>Total</td>
<td>33,509</td>
<td>3708</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Department</th>
<th>2008-09 budget data /$m</th>
<th>2007-08 budget data /$m</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total budget</td>
<td>Asset investment</td>
</tr>
<tr>
<td></td>
<td>Budget total</td>
<td>Capex</td>
</tr>
<tr>
<td>Planning &amp; Commun.</td>
<td>451</td>
<td>130</td>
</tr>
<tr>
<td>Transport/Infrastructure*</td>
<td>4345</td>
<td>2345</td>
</tr>
<tr>
<td>Sustainability &amp; Env</td>
<td>1305</td>
<td>822</td>
</tr>
<tr>
<td>Treasury and Finance</td>
<td>235</td>
<td>165</td>
</tr>
<tr>
<td>Primary Industries</td>
<td>481</td>
<td>370</td>
</tr>
<tr>
<td>Premier &amp; Cabinet</td>
<td>533</td>
<td>417</td>
</tr>
<tr>
<td>Innov/Indust/RegDev*</td>
<td>2165</td>
<td>1769</td>
</tr>
<tr>
<td>Education</td>
<td>7312</td>
<td>6310</td>
</tr>
<tr>
<td>Justice</td>
<td>3581</td>
<td>3109</td>
</tr>
<tr>
<td>Human Services</td>
<td>13,102</td>
<td>11,686</td>
</tr>
<tr>
<td>Total</td>
<td>33,509</td>
<td>3708</td>
</tr>
</tbody>
</table>

Table 2
Revised project expenditure by estimating ‘unreported’ strategic departmental initiatives.

<table>
<thead>
<tr>
<th>Department</th>
<th>2008-09 budget data /$m</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>a’</th>
<th>a’ + b + c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning &amp; Commun.</td>
<td>451</td>
<td>130</td>
<td>213</td>
<td>109</td>
<td>71%</td>
<td>322</td>
</tr>
<tr>
<td>Transport/Infrastructure*</td>
<td>4345</td>
<td>2345</td>
<td>1756</td>
<td>244</td>
<td>46%</td>
<td>2000 – 2243</td>
</tr>
<tr>
<td>Sustainability &amp; Env</td>
<td>1305</td>
<td>822</td>
<td>303</td>
<td>180</td>
<td>37%</td>
<td>483 – 663</td>
</tr>
<tr>
<td>Treasury and Finance</td>
<td>235</td>
<td>165</td>
<td>11</td>
<td>59</td>
<td>30%</td>
<td>70 – 129</td>
</tr>
<tr>
<td>Primary Industries</td>
<td>481</td>
<td>370</td>
<td>50</td>
<td>61</td>
<td>23%</td>
<td>111 – 172</td>
</tr>
<tr>
<td>Premier &amp; Cabinet</td>
<td>533</td>
<td>417</td>
<td>40</td>
<td>76</td>
<td>22%</td>
<td>116 – 192</td>
</tr>
<tr>
<td>Innov/Indust/RegDev*</td>
<td>2165</td>
<td>1769</td>
<td>121</td>
<td>275</td>
<td>18%</td>
<td>396 – 671</td>
</tr>
<tr>
<td>Education</td>
<td>7312</td>
<td>6310</td>
<td>491</td>
<td>512</td>
<td>14%</td>
<td>1003 – 1515</td>
</tr>
<tr>
<td>Justice</td>
<td>3581</td>
<td>3109</td>
<td>244</td>
<td>228</td>
<td>13%</td>
<td>473 – 701</td>
</tr>
<tr>
<td>Human Services</td>
<td>13,102</td>
<td>11,686</td>
<td>480</td>
<td>936</td>
<td>11%</td>
<td>1416 – 2352</td>
</tr>
<tr>
<td>Total</td>
<td>33,509</td>
<td>3708</td>
<td>2680</td>
<td>6387</td>
<td>19%</td>
<td>6827</td>
</tr>
</tbody>
</table>

* Indicates where agency data has been consolidated for logical reasons.
Colours indicate project expenditure:
Blue = assets.
Yellow = soft projects.
Green = total.
maths for students in Years 3 to 9…in Years 11 and 12…overall, achievement declined and was below the state average” (VAGO, 2009).

Health had even larger project expenditure with an estimated $15b–$25b spent on projects over the past decade. Again although lots of performance data were reported no systematic data was available to assess whether the strategic goal of improving waiting times for health services had improved. Our review of the annual report data suggested that waiting times had either remained static or deteriorated. However it was all but impossible to be sure because data was not reported consistently for more than a few years.

It seems reasonable to assume if evidence was available to show that the highest priority strategic goals had improved, the data would have been reported. This in turn raises the question of whether the aggressive project investment over the past decade had affected any of the strategic goals in any of the Agencies. It is possible that the performance measures were not sensitive enough to reflect improvements, that Agencies had implemented poorly over the entire decade or that the performance measures would have deteriorated without the project expenditure. Given that operational expenditure had also increased over this period (enough to reasonably expect to maintain performance) it seems reasonable to expect that the project investment should have made more impact on the strategic goals. Literacy, health, crime and the like are complex phenomena and it is possible that the wrong set of projects had been undertaken over the decade or that the environment had changed too much for the expected benefits to be realised. Time prevented a more thorough investigation but the data and the implications were presented to the entire VAGO senior management team for discussion and validation. It was understood that there would not always be a one to one relationship between projects and strategy, but all agreed that the scale of the investment over the time period being studied should have made more impact on the strategic goals.

VAGO considered the research findings to be sufficiently disturbing to change their audit plan. New audits were added in 2010 and beyond to find out if long-standing strategic goals had improved in any of the Victorian public sector Agencies. VAGO’s audit plan is tabled in Parliament and used as a key communications tool for parliamentarians and state government departments and is not changed lightly.

4.6. Victorian government project management tools and investment management frameworks

We turn now to consider whether the project management tools and investment frameworks are adequate. This will be done in two ways. Firstly the Victorian project management tools and investment frameworks will be reviewed. Then in the Discussion, they will be compared to the literature to assess whether they are adequate in the sense of being comparable to best practice. The discussion will continue and explore adequacy of best practice and the possibility of systemic deficiencies in practice.

4.7. Comparison of tools and frameworks to the literature

At the project level there is not any mandated project management tool or methodology in the Victorian public sector. Interviewees reported that most Agencies use either PMBOK or PRINCE2 although some Agencies have developed their own project management methodology based on these industry standards. One of the authors had detailed knowledge of the project management methodology used in the Department of Education and he considered it to be world class because of a focus on strategic alignment and project success rather than project management success.

At the programme and portfolio level a number of tools and conceptual frameworks have either been developed by the Victorian Treasury or adapted from OGC. These tools mandate the format of Agency project proposals and are described briefly below.

The investment lifecycle guidelines provide a framework to help Agencies understand the criteria that are used to select projects for funding. The guidelines reflect many of the latest insights in the project portfolio management literature and specifically differentiate an investment from a project by defining the objective of an investment to be the realisation of benefits and the objective of a project to be the delivery of a product. The investment management standard operationalises the lifecycle guidelines by documenting the practices expected to be
followed to define the reason for an investment, shape the solution and track the delivery of benefits through the investment lifecycle. The practices include problem definition, solution definition, benefit definition, business case development, investment reviews, benefit reporting, project management and asset management. The Investment Logic Map is a specific tool mandated by the Treasury requiring asset investments to specifically identify the benefits which they will enable and the additional initiatives that need to be undertaken to realise the benefits.

In addition to these tools, the asset management framework is in place to enable decision-makers to control the Victorian Government’s asset base more strategically. It along with Gateway, which was originally developed by OGC in the UK, was established to drive better government asset investment (NB. The State of Victoria was the first accredited Gateway jurisdiction outside the UK). The asset management framework has a service strategy, asset strategy and a multi-year strategy. The Gateway initiative is characterised by reviews of specific investments and a 10-year multi-year strategy to prioritise investments to help meet the service strategy.

There are also other guidelines published by the Treasury. Two of the more relevant include the Project Alliancing Practitioners Guide and Project Governance Guidelines. The Project Alliancing Practitioners guide provides guidelines for risk sharing when the expertise of private sector organisations is required to help deliver complex and high risk infrastructure projects. The Project governance guidelines clarify however, that departments and Agencies are accountable for service delivery to achieve government outcomes even when private sector organisations assist in delivery.

5. Discussion

The Victorian project management and investment practices were compared against the best practices and known weaknesses in the literature review (Table 3). Best practice was needed as a reference point but the definition of best practice was necessarily subjective. Generally an international Standard was chosen where one existed and widely accepted methodologies were chosen where they did not exist. In some disciplines such as portfolio management and strategy, there is probably not a widely accepted approach so examples of best practice were not used and comparisons were made against the literature in general.

The comparison suggests that the project management and investment practices in the State of Victoria are equivalent to or even better than best practice in most areas. This is consistent with the reputation of the State as a leader in New Public Management (Greve and Hodge, 2007) and validates the selection of the State as an example of an exemplary case. Both project management and portfolio management practices were found to be equivalent or better than best practice in many areas. Victoria’s portfolio management practices are particularly notable because they are based on expected benefits rather than resourcing or cost considerations and appropriately did not emphasise new product development techniques (Cooper et al., 1999).

The Victorian practices mandated for programme management and strategy/project governance were near best practice. The investment tools differentiated between investments [programmes] and projects, and the ILM tool may have overcome weaknesses in best practice tools that require excessive documentation. The weakness of their programme management practice is that the Victorian approach seems geared more to justify an asset investment rather than delivery of a programme. There is no evidence that the soft-projects identified as part of the programme are undertaken in full and benefits realised. There does not appear to be a process to adapt or cancel programmes as necessary and programmes are not required to be linked to strategy.

The Victorian approach to project governance is principle-based and is good in the sense that it focuses on the outcomes rather than prescribing specific mechanisms directed on non-strategic concerns. However there is very little detail on how projects or programmes should be governed. It is made clear that accountability for service delivery rests with the Agency but there is no mention of accountability for implementing strategy or realising strategic goals. The strategic intent for projects is not acknowledged and the guidelines could be paraphrased as “don’t let projects stuff up the business”.

The Victorian approach to strategy appears to be no different to many organisations described in the literature and shares many of the same weaknesses by assuming static relationships between strategy formulation and implementation. The investment practices do not provide any easy mechanism for strategy/programmes to adapt to emerging events, as they are tightly linked with the government’s annual budget cycle. Once a project is approved for funding, it was expected to be delivered, with little ability to put projects on hold or cancel them.

5.1. Systemic weaknesses

Victoria’s programme management and project governance practices appear not to be focussed on realisation of strategic goals. The focus or unit of funding is on individual asset investments. There is a requirement to identify a benefit to be realised but no requirement to establish that benefits link directly to strategic goal(s). For example an Investment Logic Map (ILM) guide justified an investment in finger-print recognition software because it led to the benefit of reducing processing time. However there was no requirement to ensure that complementary soft-projects identified in the ILM were also undertaken to reduce processing time. More significantly there was no requirement for the investment to be linked to a high level strategic goal such as reducing crime.

Funding decisions are focused on asset investments (Investment Lifecycle Guidelines Overview version 1.0, July 2008, p4). Decision-making and reporting do not focus on soft-projects even though the majority of project expenditure appears to be on soft-projects. Monitoring is also narrowly focussed on asset investments and mainly on project management concerns e.g. funds spent on the specified project within the specified timeframe. There appears to be no monitoring of delivery of programmes of work (that include complementary soft projects) or the realisation of strategic goals. In addition to this, the authors
### Table 3
Comparison of Victorian project management and investment practices against best practice.

<table>
<thead>
<tr>
<th>Best practice</th>
<th>Known weaknesses</th>
<th>Victorian practices</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project management</strong></td>
<td>• Emphasises on-time on-budget delivery … assuming benefits</td>
<td>• PMBOK</td>
<td>• Equivalent or better than best practice.</td>
</tr>
<tr>
<td></td>
<td>• Needs to emphasise: <em>complexity, social process, value creation,</em></td>
<td>• PRINCE2</td>
<td>o Same weaknesses</td>
</tr>
<tr>
<td></td>
<td><em>broad conceptualisation, reflective practitioners</em></td>
<td>• Equivalent or better methodology</td>
<td>o Some agencies may be focussing on value creation</td>
</tr>
<tr>
<td></td>
<td>• Fail to engage top managers</td>
<td>• Gateway Reviews</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Project Alliancing Practitioners guide</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Investment Logic Map</td>
<td></td>
</tr>
<tr>
<td><strong>Programme management</strong></td>
<td>• Immature discipline</td>
<td>• Investment lifecycle guidelines</td>
<td>• Near best practice.</td>
</tr>
<tr>
<td></td>
<td>• Not emphasising link between programmes and strategy</td>
<td>• Investment management standard</td>
<td>o Differentiates between investment [programme] and project</td>
</tr>
<tr>
<td></td>
<td>• Practices codified too rigidly</td>
<td>• Asset management framework</td>
<td>o ILM has overcome requirement for excessive documentation</td>
</tr>
<tr>
<td></td>
<td>• Excessive documentation</td>
<td>• Gateway Reviews</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Difficult to adapt to changing strategic context</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Not ensuring strategy realised</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Portfolio management</strong></td>
<td>• Focus on selection of investments vs. risk reduction or adding value/returns</td>
<td>• Portfolio management</td>
<td>• Equivalent or better than best practice.</td>
</tr>
<tr>
<td></td>
<td>• Static vs. adapting to turbulent environments and emergent strategies</td>
<td>• Investment lifecycle guidelines</td>
<td>o Selection based on benefits rather than time/cost</td>
</tr>
<tr>
<td></td>
<td>• Not complementary to top manager decision-making processes.</td>
<td>• Investment management standard</td>
<td>o Benefits sustained through asset management strategies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Asset management framework</td>
<td>o However, benefits not tied to strategy e.g. <em>reducing processing time vs. reducing crime</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Gateway Reviews</td>
<td>o Same weaknesses—no process to monitor, adapt or cancel programmes</td>
</tr>
<tr>
<td><strong>Project governance</strong></td>
<td>• Emphasising lower level project management concerns, advocating organisational</td>
<td>• Project governance guideline</td>
<td>• Near best practice.</td>
</tr>
<tr>
<td></td>
<td>structures to allocate accountability for individual projects</td>
<td></td>
<td>o Guidelines at a high level consistent with corporate governance guidelines</td>
</tr>
<tr>
<td></td>
<td>• Not emphasising how to influence projects to succeed in delivering corporate</td>
<td></td>
<td>o No detail on how to govern/influence projects to deliver strategy</td>
</tr>
<tr>
<td></td>
<td>strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Not consistent with corporate governance guidelines</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Strategy</strong></td>
<td>• Based mainly on analysis and planning</td>
<td>• 10 year State plans</td>
<td>• Static conception of strategy</td>
</tr>
<tr>
<td></td>
<td>• No guidance to translate strategy into projects</td>
<td>• Agency plans</td>
<td>o No focus on strategy?</td>
</tr>
<tr>
<td></td>
<td>• Static relationship between strategy and implementation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Top management formulate and delegate to subordinates</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Project and portfolio managers have no role in adapting strategy to respond</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>to emergent events</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
consulting work within several Victorian Agencies suggests that there is significant duplication of effort because Agencies are large and it is difficult for staff to know what all the different parts of an organisation were doing.

Several interviewees suggested that monitoring of strategic goals is too difficult because government policy can change rapidly and cause and effect relationships are too difficult to determine. We agree that adapting to environmental and strategic changes is necessary but note that the high level public sector strategic goals tend to vary stable over long periods. We argue that expected cause and effect relationships should be stated as assumptions and monitoring validated assumptions and lead to modification of programmes when evidence suggests that their assumptions are wrong or incomplete.

It is also worth noting that the Victorian tools and frameworks are influenced by OGC whose methodologies were originally focussed on overcoming IT failure. There is an assertion that the tools and frameworks broadly apply to non-asset investments but there is no evidence that the assertion is justified. The majority of investments are not IT related.

Our conclusion is that although the Victorian Investment Management frameworks focus on benefits and differentiate between projects and programmes, the emphasis is to ensure that an asset is aligned to a benefit rather than realising a benefit and there is no focus on realising higher order strategic goals. The traditional project management view of strategy predominates with an assumption that once a project is selected or aligned to some sort of strategic goal all that is needed is to deliver the project without further questioning by the implementers. We conclude that the Victorian Investment Management frameworks have a systemic deficiency in not being focussed on the realisation of strategic goals.

6. Conclusion

Victorian project management and investment frameworks were found to be comparable with and sometimes better than “best practice”. Despite this, there was no evidence that strategic goals had improved in any Agency despite very aggressive project investment in the period being studied. These findings contradict the expectations in the literature and from high level Victorian Government policy statements suggesting projects are undertaken to implement strategy. This suggests that there are systemic deficiencies not only within the State of Victoria, but with project/programme/portfolio/governance/strategy practice in general.

The implication, because the State of Victoria is an exemplary case, is that projects may not be contributing to the realisation of strategic goals more generally. If so, this is an issue of major concern because projects are the key enabler of strategies to respond to the new economic environment.

The research may be the first empirical evidence to suggest that projects generally may be failing to contribute to strategic outcomes. The research was undertaken in the context of high project failure rates. However the research did not directly study the relationship between project failure and strategy, the research compared total project expenditure, the realisation of strategic goals and adequacy of investment frameworks. The findings suggested that independent of project success or failure, projects had negligible contribution to organisational strategy in two of the largest Agencies. This implies a much broader relationship than with just project failure. What it suggests is that there is a systemic weakness in the way projects are selected and governed.

The most significant deficiency appears to be in the area of programme management—a failure to clarify how individual projects contribute towards strategic goals. Expressed another way, it suggests that even if projects were to consistently succeed, deficiencies in the way that projects are currently selected provide no assurance that they will support strategy. This conclusion is particularly significant because projects are essential to deliver performance improvements that respond to structural changes in the economy. Demographic realities suggest that business-as-usual efforts will not maintain even the current levels of performance.

6.1. Limitations and further research

The findings in this paper have been presented for critical feedback at two different academic forums, one being a workshop on top management teams and business strategy research and the other a workshop on project management.

However, the research reported in this paper is limited by the short timeframe in which it was conducted. There was not the time to more thoroughly explore beyond two large Agencies to see if strategies had been realised but unreported or strategies had been pursued that were different to those reported in strategic plans and annual reports. If the project investments could never have been expected to impact strategic goals, the results may be entirely spurious. However, these limitations are moderated to some degree by the extensive review of both knowledgeable insiders (VAGO executive) and external academic audiences.

Further research is called for to investigate the initial findings in this paper. A follow up study should be performed to see if VAGO finds evidence of improvement in the strategic goals of other Victorian Agencies. Further research is called for to investigate whether these findings can be replicated in other state or federal government Agencies, in other countries, or in the private sector. Further research is recommended in the areas of portfolio management, programme management and project governance to see whether current practice is deficient with respect to strategy. These disciplines could also be investigated to see if they can be developed to bridge the discourse between top managers and project managers. If they could be developed to reflect current dynamic conceptions of strategy it is possible that they could be used to increase the realisation of strategic goals.

References


Thomas, J., Mullaly, M., 2008. Researching the Value of Project Management. PMI.


