
David Gowland and Max Aiken
RMIT University

This article examines use of performance measurement and accountability factors and the related changes to accounting systems after organizations are privatised. The outcome has been determined by reviewing prior research and by undertaking a survey of organizations privatised in Australia between 1990 and 1998. Although the government’s primary motivation might have been the reduction of government debt overall, changes in performance indicators, accountability factors and information systems suggest that efficiency remains an ongoing goal of the new management arrangements. The article concludes that there have been changes in performance measurement and accountability and that this has required some adjustment to accounting information systems, but not to the extent expected.

Privatisation has been prevalent in western economies and it is expected that, as privatised organizations experience structural and ownership movements, significant changes will occur in accounting methods and processes. This paper specifically addresses changes that have occurred in financial management performance, accountability factors and the resultant change in executive information systems in companies that have been privatised (Some of these companies in the study were corporatised, prior to privatisation).

Organizational change as it impacts on accountants and managers has become an important aspect of developing business structures. Accountants and financial management information systems have been powerful influences with respect to performance measurement for efficiency and facilitation of fiscal policies of governments. These issues have, in the past, affected performance measurement of government bodies under policies of the Treasury (the Government Department monitoring government financial affairs) and have also given directions about accounting standardisation. It has been expected that privatisation would ease political pressures on management and give priority to efficiency and customer satisfaction as expressions of policies of the new management. This expectation might lead to a change in the way performance measurement is assessed and also to provide possible requirements for systems changes to allow for these new measures to be adopted.

Previous research has been reviewed and a survey undertaken of organizations privatised in Australia between 1990 and 1998 to determine whether there have been significant impacts upon privatised companies with respect to performance measurement, accountability and the nature of information systems (Gowland and Aiken 2003). The use of such a survey enables an analysis to be made about the generality of industries where privatisation had occurred and, also specifically, about the aviation and electricity industries in Australia.

Some of the accounting changes reflected in privatised organizations may be a result of the move to accrual accounting within the public sector but some of the pre privatised corporations were already using accrual accounting. Modifications after privatisation are
shown to move well beyond this initial accounting reform.

**Prior research**

A review of prior research has identified examples of performance measurement impacting upon privatised organizations. There are a number of studies that suggest there have been impacts upon performance measurement, accountability and the related information systems.

Bos (1991) provided an agency-theoretical model and perspective for evaluating privatisation of government programs, where government is the principal and management is the agent. He found:

The objective of the firm changes from welfare maximisation to profit maximisation: which implies a tendency towards higher prices as we move from marginal cost pricing to monopoly prices. In terms of efficiency allocation, this is a step in the wrong direction. On the other hand managerial incentives to reduce costs are strengthened. It is also easier to monitor cost reducing activities. Hence the unit costs will be reduced. In terms of productive efficiency this is a move for the better.

The private definition of agency often prevails both in political circles and in government administration where many economic advisors see the governmental executive as an owner rather than a trustee under Westminster traditions (Aharoni 1981).

Pollitt (1986) pointed out that in the United Kingdom since 1979, there had been a proliferation of attempts to undertake performance assessments, appraisals, evaluations and monitoring of measurements in the public sector. This phenomenon of accountability has also been occurring in Australia. Major reforms have been evident in public sector reporting. For example, the *Victorian Financial Management Act* (1976) promoted significant reforms with respect to performance measurement for the large trading and rating bodies in Victoria. Other reforms were linked to performance measurement through AAS27 and AAS29, which are Australian accounting standards.

Thomson (1993) reviewed the electricity privatisation process in the United Kingdom. The research identified stakeholder groups as pre-and post-privatisations and specifically related to the electricity industry. The pre-privatisation period had the government as the major stakeholder with a secondary group of consumers or bodies representing their interests. For example, the Electricity Consumers Council and the industry itself comprised the third shareholder.

The privatisation process changed this environment and created new stakeholders. These had different information needs. As in Australia where some utilities were sold by public float, others were sold through trade sales. This meant that the new stakeholder would have been a private owner rather than diversified shareholders, and that these buyers had their own shareholders.

Thomson (1993) indicated that there had been research into accounting issues related to privatisation. He pointed out that McInnes (1990) had shown that in the gas industry in the period 1969-74, which was prior to privatisation, managers had incentives to provide justification for price increases by adopting income-reducing policies and protecting margins in an uncertain political environment. McInnes (1990b) also studied accounting policy choices in the South of Scotland Electricity Board in the period 1978-88. He found evidence consistent with positive accounting theory. This showed that there was an incentive to adopt income reducing accounting policies in order to provide a stronger argument for price rises to cover ‘losses’ of revenue creation opportunities by using ‘cost plus’ accounting initiatives.

The possibility was raised about the manipulation of financial results away from efficiency to a fiscal policy focus through suspect use of commercial accounting concepts, assumptions and required standards and practices. One of the concerns about this issue is that decisions relating to pricing of services of essential community products could become linked to the bottom line of financial reports and not to the general welfare of the community under continuity of the service in efficient terms. If consistent accounting practices are to be adopted, this could be reflected over time in comprehensive decisions relating to the general
Prior to the formal survey, a pilot study was performed on a smaller sample of organizations to determine modifications to the survey instrument. The preliminary results were discussed with colleagues and representatives from industry and led to some changes to the survey format and adjustment to certain items included in the questionnaire.

The selection of organizations surveyed consisted of all organizations privatised in Australia between 1990 and 1998 (45) as identified by the Reserve Bank of Australia in the Reserve Bank Bulletin December 1997. However, a number of those organizations (7) were unsuitable for acceptance of the information. This assumption was determined after analysis, discussions, or written correspondence with officers of those companies.

The reasons that made many companies unsuitable related to four factors. The first factor related to four organizations absorbed into existing private sector firms. Therefore, the management structures and culture was already in place. A second factor was that one company indicated that staff turnover had occurred to such an extent that there were no officers remaining who could answer the survey questions. A third factor was that one company had changed ownership more than once and it was difficult for executives to complete the questionnaire. The final factor was that one company had been privatised but were not operating the assets.

After considering those companies that were in a position to complete the survey the number of possible returns totalled 38. The response rate of the selected companies was 28, 62% of the total sample of 45. If the organizations that were considered unsuitable were removed from the analysis, it would represent a 74% response rate. It was also possible to identify two specific industry groups (aviation and electricity) within the total of the companies that completed the survey. A split of the returns enabled the analysis to be divided into specific industry groups: electricity (10 returns), aviation (5 returns) and other industries (13 returns).

The response to a survey of organizations that were privatised in Australia (1990 to 1998), strengthens the argument that there have been impacts upon performance measurement, use of accountability factors and related accounting welfare of the community (Littleton 1953).

In New Zealand the State owned Enterprises have been corporatised and Spicer (1994) observed that in creating competitiveness in New Zealand, profit was improved by changing to an organizational structure that makes as much use of profit centres as is feasible. The upgrading of accounting and management information systems and the reform of associated work practices had been a key issue for most companies but there is still some confusion about the requirements that are impacting upon efficiency and developments.

In Australia the State Electricity Commission of Victoria provides an example where the government needed to respond to concerns held by the public regarding accountability and, in particular, relating this to future costs and a possible reduction of services post privatisation. The State Government’s response was to appoint a Regulator General (Callick 1994) to monitor newly privatised organizations with respect to prices and services. Until recently the regulator controlled price increases. The central issue is this. If governments have sold essential entities to reduce general debts, then what offsetting obligations have been met with respect to those generations of consumers who have paid off government guaranteed capital loans over the years? This risk for government does not necessarily equate to subscribing taxpayers funds as organizational capital, as in the private sector conceptual model. At the least, a more efficient service would be expected leading to greater value for money to consumers under privatisation.

Aiken and McCrae (1996) raised the first issue relating to accountants maximising profits at the expense of policies for the general benefit of the community. They noted the use in government of accounting regulations and standards to facilitate dominant political, managerial and commercial policies. These may have affected social conventions and public welfare.

The privatisation process changed this environment and created new stakeholders. These had different information needs. As in Australia where some utilities were sold by public float, others were sold through trade sales. This meant that the new stakeholder would have been a private owner rather than diversified.
Changes to financial performance measures

Changes to financial performance measures post privatisation. However the impacts are not as significant as may have been expected.

Senior executives (with pre and post privatisation experience in entities) were questioned in relation to these factors after the event (those organizations that did not have a senior executive with pre and post privatisation were asked not to respond).

The data used for this part of the paper is based on the results of responses to that questionnaire and consists of thirteen questions relating to performance measurement, seventeen questions relating to accountability factors and seven questions relating to information systems.

For analysis of the responses it was possible to identify views of all organizations and, also, to identify the views of three specific industry groups. These are (1) electricity, (2) aviation and (3) others. It is noted that the responses for electricity are predominantly from Victoria.

Respondents were requested to give their opinions as to the extent of changes to their organizations since the privatisation process had taken effect. The statistical package for social sciences (SPSS) and the excel software were used to analyse the data.

Unless a response to a question indicates no change then it was acknowledged that some change had occurred. However to determine whether those changes had been major, an average of 3 in the Likert scale (where the range was 0 to 5) was considered to be a medium change and an average of 4 or above, a significant change. Tests were produced for the responses to the questions and for the summed total of the five parts of the questionnaire. This was done at the 95% confidence level. The returned questionnaire for each respondent has been analysed to determine whether any specific bias was evident. All respondents gave a range of ratings for questions asked in each of the five parts of the questionnaire and, therefore, it is not evident that a specific bias occurred in any of the answers. Following is a summary of the information relating to three specific areas referred to in the questionnaire.

Financial management performance

The survey asked for a response from the privatised organization concerning thirteen questions about financial management performance and/or its use and in particular
### TABLE 1 SUMMARY FINANCIAL PERFORMANCE MANAGEMENT

#### QUESTIONS (ALL RESPONDENTS)

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>AV</th>
<th>S/D</th>
<th>CHG</th>
<th>AV</th>
<th>S/D</th>
<th>CHG</th>
<th>AV</th>
<th>S/D</th>
<th>CHG</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The expectation on the return on Equity</td>
<td>4.4</td>
<td>0.548</td>
<td>S</td>
<td>4.1</td>
<td>1.101</td>
<td>S</td>
<td>3.5</td>
<td>1.391</td>
<td>C</td>
<td>3.857</td>
</tr>
<tr>
<td>2. The expectation on dividend earnings per share</td>
<td>2.6</td>
<td>2.191</td>
<td>A</td>
<td>4.0</td>
<td>1.617</td>
<td>S</td>
<td>3.6</td>
<td>1.446</td>
<td>C</td>
<td>3.500</td>
</tr>
<tr>
<td>3. The expectation on return on assets</td>
<td>4.2</td>
<td>0.834</td>
<td>S</td>
<td>3.3</td>
<td>1.418</td>
<td>C</td>
<td>3.2</td>
<td>1.536</td>
<td>C</td>
<td>3.429</td>
</tr>
<tr>
<td>4. The use of Ratio analysis for operating functions (eg. stock turnover, debtor turnover)</td>
<td>3.6</td>
<td>1.673</td>
<td>C</td>
<td>1.7</td>
<td>0.949</td>
<td>A</td>
<td>2.3</td>
<td>1.316</td>
<td>A</td>
<td>2.107</td>
</tr>
<tr>
<td>5. The importance of the financial gearing ratio</td>
<td>3.8</td>
<td>1.303</td>
<td>C</td>
<td>4.2</td>
<td>1.033</td>
<td>S</td>
<td>2.8</td>
<td>1.536</td>
<td>C</td>
<td>3.464</td>
</tr>
<tr>
<td>6. The importance of percentage of Interest Costs to total operating costs</td>
<td>3.2</td>
<td>2.049</td>
<td>C</td>
<td>3.6</td>
<td>1.578</td>
<td>C</td>
<td>2.1</td>
<td>1.441</td>
<td>A</td>
<td>2.821</td>
</tr>
<tr>
<td>7. The importance individual segments of the business with respect to profitability</td>
<td>3.6</td>
<td>1.157</td>
<td>C</td>
<td>2.7</td>
<td>1.567</td>
<td>A</td>
<td>2.8</td>
<td>1.463</td>
<td>A</td>
<td>2.929</td>
</tr>
<tr>
<td>8. The use of Internal Transfer pricing</td>
<td>1.0</td>
<td>0</td>
<td>A</td>
<td>1.7</td>
<td>1.160</td>
<td>A</td>
<td>2.0</td>
<td>1.290</td>
<td>A</td>
<td>1.857</td>
</tr>
<tr>
<td>9. The method of overhead distribution</td>
<td>2.4</td>
<td>1.949</td>
<td>A</td>
<td>2.3</td>
<td>1.767</td>
<td>A</td>
<td>2.0</td>
<td>1.354</td>
<td>A</td>
<td>2.179</td>
</tr>
<tr>
<td>10. The importance of the availability of cash flow from operations</td>
<td>4.2</td>
<td>1.789</td>
<td>S</td>
<td>4.3</td>
<td>0.823</td>
<td>S</td>
<td>2.8</td>
<td>1.519</td>
<td>A</td>
<td>3.607</td>
</tr>
<tr>
<td>11. The importance of Benchmarking of performance factors</td>
<td>3.4</td>
<td>1.140</td>
<td>C</td>
<td>2.2</td>
<td>1.229</td>
<td>A</td>
<td>2.5</td>
<td>1.127</td>
<td>A</td>
<td>2.643</td>
</tr>
<tr>
<td>12. The importance of comparison of key performance indicators to competitors</td>
<td>3.8</td>
<td>1.643</td>
<td>C</td>
<td>2.6</td>
<td>1.075</td>
<td>A</td>
<td>2.0</td>
<td>0.816</td>
<td>A</td>
<td>2.536</td>
</tr>
<tr>
<td>13. The importance of Industry diversifications</td>
<td>2.2</td>
<td>1.304</td>
<td>A</td>
<td>3.4</td>
<td>1.350</td>
<td>C</td>
<td>2.5</td>
<td>1.450</td>
<td>A</td>
<td>2.786</td>
</tr>
</tbody>
</table>

A = Minor Change < 3  
C = Medium Change 3 < 4  
S = Significant Change 4+
Changes to financial performance measures

whether expectations had changed significantly since privatisation.

The thrust of the questions in this part of the survey instrument focussed on how organizations now measure their financial performance and on whether the methods had changed significantly post-privatisation. It was expected that there might be a stronger emphasis on profitability and cash monitoring because government organizations were often perceived to be more focussed on customer service than on profitability. Governments also had other means of providing cash and funds for an organization if the need arose. One of the reasons offered for moving to privatisation was that the organization would become more accountable (Spicer 1994). One way to measure the success of this was to introduce various financial management performance indicators. For example, ratio analysis of stocks, debtors and return on investment were identified. Benchmarking is also a key device used in the private sector to determine whether an organization is operating in an efficient manner.

Table 1 on the next page identifies the results of the tests that determined whether there had been significant changes.

The indications overall from the evidence suggested that there had not been significant change in financial management performance, and of the thirteen questions there were no significant changes and only five of the those questions indicated a medium level of change. This is contrary to Spicer’s (1994) comment that privatised organizations would become more accountable. The five questions that indicated that there was at least a medium level of change, were:

(1) there were greater expectations about return on equity (question 1);
(2) the expectation of dividend earnings per share, and return on assets were considered to be more important post-privatisation (questions 2);
(3) the expectation on return on assets (question 3);
(4) the financial gearing ratio was now more important than it was in the period prior to privatisation and the percentage of interest costs to total operating costs was now being monitored (question 5); and
(5) the importance of cash flow from operations gained significance post-privatisation (question 10)

One further question was close to the level selected for medium change and therefore added for comment.

The individual segments of business with respect to profitability was a key change and further analysis was now a result of setting up business units in a number of private organizations (question 7).

All of these factors point to a more commercially focussed organization. In particular, the attitude to performance measurement had undergone a medium level of change since privatisation. For example, return on equity, earnings per share and return on assets employed were all very important measurement areas in analysing investment strategies on the stock market. There seemed to be a strong emphasis on these factors for these organizations post-privatisation. The privatised companies also would be competing now on the open market for loan moneys. Again, the indications are that the emphasis on the financial gearing ratios and the costs associated with acquiring loan moneys seem to have been given a stronger emphasis post-privatisation.

With respect to the question on segment reporting (question 7) the trend to implement segmented reporting also seemed to have changed to at least a medium level post-privatisation although this may have been expected given that only private sector organizations were required to report for industry and geographical segments. (The public sector organizations in Australia were excluded from this reporting requirement). Use of segmented reporting might have been linked to the importance of industry diversification because the responding organizations indicated that this aspect has undergone some change. It may be that segmented reporting highlighted strengths and weaknesses of various parts of private organizations. Therefore, highlighting the fact that there may have been too much reliance on certain sectors of the organization and, therefore, a need to diversify in government, it might have placed unwanted political pressure on the provision of essential services. Also Treasury officials may not have wished to be bound in policy deliberations by the need for segmented reporting. This is an area, which could benefit from more research in public administration.
**TABLE 2 SUMMARY ACCOUNTABILITY QUESTIONS**

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>AVIATION</th>
<th>ELECTRICITY</th>
<th>OTHER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The accountability to Government or shareholders</td>
<td>4.8</td>
<td>0.447</td>
<td>S</td>
<td>3.8</td>
</tr>
<tr>
<td>2. The cash return to Government or shareholders</td>
<td>4.6</td>
<td>0.548</td>
<td>S</td>
<td>4.0</td>
</tr>
<tr>
<td>3. The importance attached to the use of Accounting standards</td>
<td>4.0</td>
<td>1.732</td>
<td>S</td>
<td>2.4</td>
</tr>
<tr>
<td>4. The importance attached to the use of the Securities Legislation</td>
<td>3.8</td>
<td>1.303</td>
<td>C</td>
<td>2.5</td>
</tr>
<tr>
<td>5. The company policy relating to corporate Governance</td>
<td>3.8</td>
<td>1.643</td>
<td>C</td>
<td>2.5</td>
</tr>
<tr>
<td>6. The role of Executive Directors in respect to Corporate Governance</td>
<td>3.4</td>
<td>2.191</td>
<td>C</td>
<td>2.9</td>
</tr>
<tr>
<td>7. The role of non executive directors in respect to Corporate Governance</td>
<td>2.6</td>
<td>2.191</td>
<td>A</td>
<td>2.3</td>
</tr>
<tr>
<td>8. The amount of reporting on Corporate Governance in the Annual Report</td>
<td>2.6</td>
<td>1.817</td>
<td>A</td>
<td>2.4</td>
</tr>
<tr>
<td>9. The reporting function of internal audit</td>
<td>3.2</td>
<td>2.049</td>
<td>C</td>
<td>3.5</td>
</tr>
<tr>
<td>10. The liability of directors to shareholders or government</td>
<td>3.4</td>
<td>1.673</td>
<td>C</td>
<td>2.6</td>
</tr>
<tr>
<td>11. The potential for directors to become liable to third parties</td>
<td>3.8</td>
<td>1.789</td>
<td>C</td>
<td>2.9</td>
</tr>
<tr>
<td>12. The extent of borrowings from overseas</td>
<td>1.8</td>
<td>1.789</td>
<td>A</td>
<td>2.8</td>
</tr>
<tr>
<td>13. The importance attached to growth in sales</td>
<td>4.4</td>
<td>0.548</td>
<td>S</td>
<td>3.1</td>
</tr>
<tr>
<td>14. The importance attached to Product Costing</td>
<td>3.6</td>
<td>1.673</td>
<td>C</td>
<td>2.3</td>
</tr>
<tr>
<td>15. The importance of a comparison of returns to competitors</td>
<td>3.4</td>
<td>1.517</td>
<td>C</td>
<td>2.3</td>
</tr>
<tr>
<td>16. The importance of disposal of non performing assets</td>
<td>4.0</td>
<td>1.414</td>
<td>S</td>
<td>2.0</td>
</tr>
<tr>
<td>17. The importance of financial reporting to key areas of the organization at more regular intervals than monthly</td>
<td>3.4</td>
<td>2.191</td>
<td>C</td>
<td>1.8</td>
</tr>
</tbody>
</table>

A = Minor Change  < 3 C = Medium Change  3 < 4 S = Significant Change  4+
Changes to financial performance measures

The other seven questions did indicate some change but not to the extent that one might have expected given that one of the key reasons for government privatisation has been offered as improved financial performance under private sector control.

These seven questions where minor change has been implied were:

question 4 The use of ratio analysis for operating functions (eg. stock turnover and debtors turnover),
question 6 The importance of percentage of interest costs to total operating costs,
question 8 The use of internal transfer pricing,
question 9 The method of overheads distribution,
question 11. The importance of benchmarking of performance factors,
question 12. The importance of comparison of key performance indicators to competitors, and
question 13. The importance of industry diversifications.

The responses to these questions did reflect that there was some change with respect to their use. The change however, was below the medium level of change of an average of 3 using the Likert scale, which was explained earlier. The fact that the responses to the questionnaire showed that use of these indicators had not changed significantly could mean that the organization pre-privatisation had already been monitoring interest costs, utilising ratio analysis, transfer pricing and overhead distribution in a manner similar to organizations in the private sector. The fact that performance benchmarking and comparisons to competitors did not change significantly is unexpected.

With respect to the specific industry groups of aviation, electricity and other industries, there were some varied results and there were significant changes in some of the areas addressed. There seemed to be less impact on the category ‘other industries’. However return on equity and expected return on assets did undergo an increased emphasis.

The responses from organizations in the ‘aviation industry’ indicated that there were significant changes in expectations on return on equity, return on assets and on expectations of cash from operations. There was also a medium level of change in a number of other questions and only four of the thirteen questions indicated a lower than medium level of change. This suggests that the impacts in this industry have been much higher than the others. The respondents from the electricity industry also reported greater change than the other industries, and had a significant change with respect to expectations relating to return on assets, gearing ratio and cash flows and to a lesser extent on, return on assets, interest costs and diversification where there was a medium level of change indicated.

In summary the conclusion from the survey is that there has not been as much change to financial management performance as expected, and overall, only a medium change in five of the thirteen questions. There has however, been a more significant impact to financial management performance in the aviation and electricity industries where there were both significant and medium level changes to more than half the questions.

Accountability factors

The survey of companies privatised in Australia between 1990 and 1998 was also used to determine whether changes had occurred post-privatisation with respect to accountability factors. Questions asked of these organizations relating to accountability factors were designed in a manner similar to previous questions in the questionnaire. The survey instrument questioned respondents regarding the changes in accountability with respect to being a government organization as opposed to a private sector organization where expectations of the community and shareholders might be different. For example, dividend returns expected to be earned by a shareholder can be opposed to the view of the community where surpluses flow into government funds. The survey also asked questions regarding the different forms of accountability. For example, specific government legislation can be opposed to the Securities Legislation. This change leads to a different attitude to corporate governance.

The survey asked executives of the privatised organizations seventeen questions in relation to accountability factors. These were with respect to whether the expectations had
### TABLE 3 SUMMARY EXECUTIVE MANAGEMENT SYSTEMS QUESTIONS

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>AVIATION</th>
<th></th>
<th></th>
<th></th>
<th>ELECTRICITY</th>
<th></th>
<th></th>
<th></th>
<th>OTHER</th>
<th></th>
<th></th>
<th>TOTAL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The use by middle managers of management information systems</td>
<td>2.6</td>
<td>1.517</td>
<td>A</td>
<td>2.8</td>
<td>1.135</td>
<td>A</td>
<td>2.7</td>
<td>1.377</td>
<td>A</td>
<td>2.7</td>
<td>1.272</td>
<td>A</td>
<td>2.6</td>
</tr>
<tr>
<td>2. The attitude of the Board of Directors to the utilisation of the best available systems</td>
<td>2.6</td>
<td>1.517</td>
<td>A</td>
<td>2.6</td>
<td>1.506</td>
<td>A</td>
<td>2.5</td>
<td>1.266</td>
<td>A</td>
<td>2.6</td>
<td>1.345</td>
<td>A</td>
<td>2.6</td>
</tr>
<tr>
<td>3. The consideration of cost factors of implementing new information systems</td>
<td>3.8</td>
<td>0.837</td>
<td>C</td>
<td>2.6</td>
<td>1.506</td>
<td>A</td>
<td>3.0</td>
<td>1.471</td>
<td>C</td>
<td>3.0</td>
<td>1.414</td>
<td>C</td>
<td>3.0</td>
</tr>
<tr>
<td>4. The integration of management information systems</td>
<td>2.4</td>
<td>1.673</td>
<td>A</td>
<td>3.2</td>
<td>1.398</td>
<td>C</td>
<td>3.2</td>
<td>1.589</td>
<td>C</td>
<td>3.1</td>
<td>1.513</td>
<td>C</td>
<td>3.1</td>
</tr>
<tr>
<td>5. The use of generalised information systems</td>
<td>2.0</td>
<td>1.732</td>
<td>A</td>
<td>3.5</td>
<td>1.179</td>
<td>A</td>
<td>2.5</td>
<td>1.330</td>
<td>A</td>
<td>2.4</td>
<td>1.314</td>
<td>A</td>
<td>2.4</td>
</tr>
<tr>
<td>6. The use of in-house developed systems</td>
<td>2.6</td>
<td>2.191</td>
<td>A</td>
<td>3.5</td>
<td>1.269</td>
<td>C</td>
<td>3.2</td>
<td>1.281</td>
<td>C</td>
<td>3.2</td>
<td>1.442</td>
<td>C</td>
<td>3.2</td>
</tr>
<tr>
<td>7. The capacity of the management systems to produce information more regularly than monthly reports</td>
<td>2.6</td>
<td>1.817</td>
<td>A</td>
<td>2.9</td>
<td>1.370</td>
<td>A</td>
<td>2.6</td>
<td>1.261</td>
<td>A</td>
<td>2.8</td>
<td>1.449</td>
<td>A</td>
<td>2.8</td>
</tr>
</tbody>
</table>

A = Minor Change < 3
C = Medium Change 3< 4
S = Significant Change 4+
Changes to financial performance measures

significantly changed post-privatisation. Table 2 below identifies the responses and statistical analysis of the seventeen questions.

The indications overall were that there was no evidence to suggest that there had been significant change in financial accountability factors.

There were no individual results indicating significant change and a medium level of change was evident in only five of the seventeen questions. The overall results show that there was a medium level of change in:

1. the accountability to government or shareholders (question 1);
2. the cash return to government or shareholders (question 2);
3. the reporting function of Internal audit (question 9);
4. the potential for directors to become liable to third parties (question 11); and
5. the importance in the growth in sales (question 13).

The above issues where the responses suggested there had been at least a medium level of change, there has been a change in philosophy post-privatisation with respect to accountability. There seem to be tighter barriers of accountability imposed upon the organizations by both legal requirements and also by outside expectations. Liability of directors is considered to be more exposed in private sector organizations than in the pre-privatisation era.

In reviewing the specific industry groups, the aviation group experienced different results than the other industries. Of the seventeen questions there was significant change in five of those questions and a medium level of change in a further nine of the questions. This implies the impact has been much greater in this industry than the other industries. The electricity industry had a similar pattern to industries overall, although it did not report medium or significant change to cash returns.

In summary the conclusion from the survey is that there has only been significant change in the use of accountability factors post-privatisation in the aviation industry and not the others. Although there has been some change in industries overall, this has not been significant. This result is unexpected given that privatisation has a key expectation of higher accountability in the way they are operated under private sector ownership.

Executive management information systems

The use of executive management information systems is a crucial tool to assist managers in the decision making process. There is a perception that the foci of government organizations and of organizations from the private sector are different. This is alluded to above where accountability factors changed significantly post-privatisation. If these perceptions are factual then it could be expected that once an organization changes into a private sector entity then its executive management systems may need to be reviewed to facilitate the new reporting requirements.

At the former State Electricity Commission of Victoria, the use of in-house systems development was said to be common before privatisation. However there is now a realisation that it is more efficient to use the benefits of systems developed for a multitude of industries. This can have economies of scale and also provide technical support to modify programs as developments take place (Gowland 1995).

Executive management information systems are an important tool in managing organizations effectively. The fact that the responses to the questions indicate a stronger emphasis on integration and use of the best available systems could indicate that managements of the newly privatised organizations are placing a priority on executive management information systems to assist them in managing more effectively and, also, efficiently.

To test this presumption the survey asked the privatised organizations seven questions relating to executive information systems. These were with respect to whether respondents thought there had been significant change in the use and design of these systems post-privatisation to assist in the decision-making process.

The questions were designed after consulting with personnel from privatised organizations and with people involved in privatisation activities. The thrust of the questions focussed on the type of information systems used and whether there had been
significant change in these systems post-privatisation. Scope included factors relating to whether there was in-house development of systems or whether generalised software was utilised. The use of the information from these systems was also considered.

Table 3 identifies the responses and statistical analysis of the seven questions. The indications overall were that there was no evidence to suggest significant change in the use and design of executive management information systems had occurred. It is accepted that there has been some change in the use of and design of executive management information systems of privatised organizations compared to when they were government organizations but there is only a medium level of change in three of the seven areas that the questions addressed. This medium level of change occurred in the following questions:

1. the consideration of cost factors of implementing new information factors (question 3);
2. the integration of management information systems (question 4); and
3. the use of in-house developed systems (question 6).

This perception of change might be attributable to the fact that monetary factors might be tighter in the private sector area than in private enterprise and it is important that in-house systems be developed to handle some of the changed performance requirements. The development of in-house systems might also be linked to better integration of existing systems, which is an area where at least a medium level of change had been experienced.

In relation to the specific industry groups, the pattern was similar across the board and overall there had not been a significant change with respect to the use of executive management information systems.

In summary the conclusion from the survey is that post privatisation, there was no significant change in this area. There was only a medium level of change in the use and/or design of executive management information systems in less than half the areas to which the questions addressed.

Conclusion

Management performance measures, accountability factors and accounting information systems have been through a process of change since privatisation and reflects a different emphasis on the reporting needs of management. Many of the advantages that governments claimed would eventuate from the privatisation programmes were linked to improved operating performances including greater efficiency. The research indicates that the move toward privatisation and the changes to accounting and systems requirements have not led to as stronger emphasis on performance reporting and accountability than would be expected. The conclusion in this research does not support the prior research and although it is acknowledged that change has occurred it is not at the level expected.

Prior research undertaken in this area suggested there were significant changes in accounting information resulting from privatisation. Thomson (1993) and Pollitt (1986) commented on the situation in the United Kingdom and indicated that information needs were very different afterwards and valuations were more realistic. Accrual reports and shareholder information became very important. Spicer (1994) observed similar patterns in New Zealand. Ma and Mathews (1993) and Aiken and McCrae (1996) raised concerns about financial reporting being linked to the public sector through diverse fiscal reporting objectives emerging under political and economic imperatives from time to time. Opportunities for such manipulation of pricing and volume under preferred policies, including macroeconomic policies, would appear to be reduced after privatisation given changes in accounting and accountability factors and measures.

The survey of organizations privatised in Australia between 1990 and 1998 was used to determine three specific areas of significance to accountants. These were use of financial indicators of management performance, accountability factors, and use of executive management information systems.

The outcome of the survey has indicated that with respect to privatised organizations there is evidence to suggest that there has only been a low level of change to:

- financial management performance measurement,
- accountability, and
- executive information system development.
Changes to financial performance measures

The results point to the fact that market forces and private sector financial management criteria are not significantly different to those of Treasury edicts under government policy for the delivery of essential services to the public. The research finds that the re-structure and implementation of new systems and accountability measures to meet the reporting needs of privatised companies has not been as great as expected. It is not in accord with perceptions that governments may have. These postulate that private sector managers are more likely to improve efficiencies in the running of former government owned enterprises by using accountability factors as the means by which managers can assess improvements to efficiency. The use of improved performance measures, accountability factors and information systems post-privatisation as revealed here is not strongly supportive of this view.

References

McInnes, W M (1990b) ‘Further evidence of Accounting choices the South of Scotland Electricity Board’ Accounting and Business Research 21(81) 57.
Thomson, L 1993 The financial accounting implications of the privatisations of the Regional Electricity Companies in the UK; Utilities Policy .

‘The survey questionnaire administered for this study and the list of privatised organisations by the Reserve Bank (Bulletin) December 1997 are available from the authors.

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