Implementing the EVA® Business Philosophy: Management Accounting Evidence From New Zealand

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Introduction

Implementing the EVA® philosophy presents case study evidence on Economic Value Added (EVA®) from a management accounting perspective.

The evidence is based on CIMA sponsored research into three New Zealand organisations that have been using EVA® for a number of years. Two are state-owned enterprises and one is a listed company. The state owned enterprises (SOE) are corporatised organisations. These firms are owned by the Government and must report to the Shareholding Minister. Managers are expected to behave as they would in an equivalent quoted company. Under the SOE Act (1986): the principal objective of an SOE is to operate as a successful business. The use of EVA® is interesting for such firms, since targets relating to this measure could feasibly range from negative (in recognition of the necessary service that is being provided) to EVA® maximisation. In between, a target of zero EVA® would indicate that the aim is for the firm to earn its cost of capital. It is the two extremes that were relevant in this study. One SOE had negative targets, and the other aimed to maximise EVA®, with a benefit sharing scheme for positive EVA® above a certain threshold.

The aim was to look at EVA® in a business context to discover whether it has:
- replaced traditional measures used for planning, investment decision making and control, so is a complete measure of performance;
- addressed the problems associated with decentralised organisations such as; short termism and economic dependence between units; and
- therefore solved conflicts of interest within the firm and between managers and shareholders.

The evidence demonstrates that the three firms in the case study all choose EVA® over other commercially available products. The original motivation came from members of the boards, who saw it as a good proxy to market value (for the listed firm) and a reasonable benchmark to measure performance in the absence of the market value (for the SOEs). The focus on the cost of capital was important for each of the case firms. For one SOE, EVA® also provided a means of benefit sharing between customers, the shareholding minister and employees within the organisation.

The results demonstrate that the EVA is not a complete measure, since its introduction did not signal the replacement of traditional measures for the case firms. Each firm continues to make use of many other measures both internally (for example net present value (NPV) analysis and payback for investment decision making) and externally (for example the promotion of earnings before interest and tax (EBIT) results to the media and analysts).

It appears that EVA® cannot solve many of the problems associated with the decentralised organisation and conflicts of interest still exist, in particular over economic dependence between units and the short termism. The key motivation for this is the managerial compensation scheme - if managers are rewarded on annual EVA® at the business unit level, they have the incentive to maximise their short-term EVA® result at the expense of the overall longer term firm result. Furthermore the calculation and use of EVA® can itself create new problems. EVA® may be misunderstood within the organisation so that people mistrust the results. The way that the measure is applied may also create adverse motivational incentives.

The firms have dealt with these issues in different ways but the common theme is that the calculation and application of EVA® has been simplified over time. Within each firm, EVA was originally introduced as a complex measure but it has been simplified over time. Within each firm, EVA® was originally introduced as a complex measure but it has been simplified in order to improve objectivity and understanding - both of which are vital if EVA is to be a success.
Finally, the case study format is ideal for the study of EVA®. Many earlier studies relied on external analysis at the firm level leading to very general conclusions about EVA® users and non-users. The management accounting perspective adopted here via the case study facilitates a more detailed investigation and the gathering of finer quality information. In addition, the evidence is not drawn from a 'snapshot' at a point in time, since the investigation enabled a wider discussion of the reasons for EVA® introduction, the range of acceptable approaches to the philosophy of EVA®, and its evolution over time.

Although the findings will not apply to all firms, the results should be of interest to practitioners since they address the pertinent issues concerning implementing and working with an EVA® financial management system.

Reasons for implementing EVA®
The reasons for implementing EVA® start with its defined functionality. The definition of EVA® looks the same as that of residual income, a concept first discussed by Solomons (1965). However, proponents of EVA® would argue that it is much more than a measure and that it can be adopted as a core business philosophy. They would describe EVA® as a complete measure of operating performance as it balances the secondary measures (value drivers) to maximise value. Ex ante, the accounting definition of EVA® can be used for investment decision making. It is used in much the same way as NPV projects will be accepted if the present value of the future EVA®s is greater than the investment cost.

The control function can also be based on actual EVA®, or budget versus actual EVA®, EVA® can be estimated at the firm level to gauge overall performance and it can be pushed right down through the divisional level to business units, making use of EVA® in the compensation scheme in order to provide the right incentives to managers. The idea of one measure for planning and control is that managers and everybody working with EVA® focus on this one indicator and the whole firm pulls in the same direction.

EVA® has it been oversold?
It may be that EVA® does not do all that has been promised by its promoters but the consistent view is that EVA® has been useful.

The evidence is based on case study investigation of three companies that have worked with EVA® for a number of years. The case studies can be described as 'insight studies' because they provide in-depth insights into the management accounting dimensions of EVA®. In the research, there was no attempt to assess the extent to which the cases are representative of the population in question.

Central to the investigation is whether EVA® has been good for the firms and whether it provides the right incentives.

The rewards focus means that EVA® delivers benefit sharing since the surpluses can be shared out after the returns to capital providers have been recognised. It can also lead to improved decision making-through a focus on the use of capital, the cost of capital and the key drivers of value. These focal points had been missing before the introduction of EVA®.

The research approach
A management accounting perspective
Most positive studies to date have concentrated on claims that one particular measure, say EVA®, is more highly correlated with share prices than other measures. However, correlation does not indicate causation, so EVA® cannot be said to cause any observed improvement in share price. In addition, these studies do not consider EVA® beyond the corporate or firm level so there is no evidence presented on the philosophy of EVA® in the decentralised organisation. Also, there is no consideration of whether EVA® is a complete measure and whether it can establish the right incentives to ensure value maximisation.

The research presented here is unique in that it investigates EVA® within the organisation from a management accounting perspective, from corporate level down to business units.

The three firms investigated are all based in New Zealand, which was chosen for two reasons:
• Several firms there have been working with EVA® for a number of years and so have a well-established track record of EVA® systems. This gives a picture of EVA® over time.
Some SOEs publish EVA® information in their financial statements in comprehensive detail. As previously noted an SOE is a ‘corporatised’ firm which is owned by the Government and which must report to the shareholding minister. Under the SOE Act (1986) the principal objective of an SOE is to operate as a successful business. A successful business is defined in the Act as being as profitable and efficient as comparable businesses that the Government does not own; a good employer; and an organisation which exhibits a sense of social responsibility. The research considered two SOEs and so was able to investigate the extent to which management accounting systems are driven by financial reporting requirements. It also explored the differences in EVA® between these firms and the third company, a firm quoted on the New Zealand stock exchange.

Participants were asked about the following points:
(a) Implementation process including the reasons for EVA® introduction;
(b) Measure of EVA®, including the definition and identification of value drivers;
(c) EVA® and corporate strategy;
(d) EVA® for investment decision making;
(e) EVA® for performance management;
(f) EVA® for setting remuneration; and
(g) Changing nature of the EVA® systems since implementation.

Summary information on participant firms
Summary information on performance is presented in Table 1 below.

A total of 17 interviews were conducted across the three organisations. Each participant held managerial positions within the firm at the time of the interviews: they included one chief executive, group managers, HR managers, group controllers, strategic managers, corporate finance managers and accountants. There was some overlap in the areas covered in the interviews, in an attempt to ensure triangulation of results.

Table 1.
<table>
<thead>
<tr>
<th></th>
<th>Organisation 1</th>
<th>Organisation 2</th>
<th>Organisation 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of firm</td>
<td>Publicly quoted - business unit structure</td>
<td>SOE - business unit structure</td>
<td>SOE - business unit structure</td>
</tr>
<tr>
<td>Operating Revenue</td>
<td>$NZ 4 billion</td>
<td>$NZ 110 million</td>
<td>$NZ 900 million</td>
</tr>
<tr>
<td>Capital Expenditure</td>
<td>$NZ 600 million</td>
<td>$NZ 23 million</td>
<td>$NZ 33 million</td>
</tr>
<tr>
<td>Employees</td>
<td>6,500 FTE</td>
<td>650 FTE</td>
<td>7,500 FTE</td>
</tr>
<tr>
<td>Time since EVA® implementation</td>
<td>&gt; 6 years</td>
<td>&gt; 5 years</td>
<td>&gt; 3 years</td>
</tr>
</tbody>
</table>

$NZ 1 = approximately £0.28 for 2000
Source: 2000 Accounts and firm documents
Conclusions
This report has provided a comprehensive analysis of EVA® from a management accounting perspective, investigating whether EVA® delivers what it promises. The investigation centred on a case study analysis of three EVA® organisations in New Zealand. In particular, the focus is whether EVA®:

- replaced traditional measures used for planning, investment decision making and control, so can be regarded as a complete measure of performance; and
- addressed problems associated with the decentralised organisation such as those relating to short-termism and economic dependence and therefore solved conflicts of interest within the firm and between managers and shareholders.

The evidence demonstrates that EVA® has not replaced the traditional measures associated with investment decision making, planning and control. Each firm relies on additional measures for these different dimensions. This may be historical (for example, the use of the payback period internally or EBIT externally), or because EVA® is seen as subjective due to the adjustments that are necessary to measure it.

For the case study firms, EVA® does not appear to have addressed the problems that are associated with the decentralised organisation. EVA® does not address issues of short-termism and economic dependence. Adjustments to the measure of EVA® in an attempt to counter these factors can complicate the measure and lead to subjectivity.

Furthermore, EVA® does not appear to solve conflicts of interest within the firm and between managers and shareholders. The recommended practice is to implement EVA® at the firm level and then push it down to business units. Organisation 1 found that EVA® actually created adverse incentives and enhanced conflicts of interest when it was mapped through the organisation, as a result of the economic dependence between the units. Shareholder value was being damaged through having EVA® down at the business unit level. It decided to turn full circle and use EVA® at the global level only for its core businesses.

Remuneration is the key to overcoming these issues and there are attempts made within the firms to alleviate short-termism and goal incongruence. For example, Organisation 1 makes use of the bonus bank. Organisations 1 and 2 reward managers only on corporate EVA®, Organisation 3 rewards its staff on a combination of business unit and corporate EVA®, to foster teamwork.

Despite the remuneration focus, it is clear that EVA® has not replaced traditional measures, does not solve the problems inherent in a decentralised organisation and does not solve conflicts of interest within the firm. Where economic dependence is strong between units, EVA® can actually worsen conflicts of interest.

In addition, the evidence shows that there are many complex dimensions to the EVA® measure. Assets must be assigned to business units and issues over joint revenues, costs and allocated costs must be considered. The number of adjustments to GAAP figures necessary to create the right incentives is another factor. Discretion over these dimensions means that, as well as being complicated, the way that the measure is calculated can sometimes appear subjective and incomprehensible. Within the firms, EVA® has evolved – initially it is quite complex with many adjustments but gradually the measure is simplified so in the end there are few (or no) differences between the inputs to EVA® and the GAAP figures. This is an attempt to reduce subjectivity and increase understanding. If the measure is not readily understood, there is a danger that EVA® could be relegated to a financial measure, used only by accountants.

The research shows that firms should not be categorised simply as EVA® users or non-users. There is a wide range of acceptable approaches to the philosophy and measure of EVA®. Furthermore, over time, the philosophy may need to change, particularly as a result of economic dependence between units.

It is vital that the measure of EVA® is seen as objective by all users, whether inside or outside the firm. Continued communication is necessary to improve and maintain understanding of the measure. The measure and application of EVA® must also create the right incentives for managers and others in the decentralised organisation. If the firm can achieve these then it is a long way towards making EVA® a success.
Finally, the research illustrates that EVA® can be implemented for both quoted and unquoted firms. There are not major differences between the quoted company and the SOEs in the calculation and use of EVA®. Although the SOEs cannot rely on share prices for the estimation of the cost of capital, the fundamental approach is the same as for quoted firms. EVA® may be viewed as a benchmark for performance in the absence of a share price for the SOEs while within the quoted company EVA® is seen as a measure that closely maps the share price. Again the fundamental idea is the same. That Organisation 1 does not work with EVA® at the business unit level is a result of the tensions that EVA® created because or organisational structure, not the fact that is quoted.

Participants in each of the organisation agree that, overall, EVA® has been good for their firms. The evidence is that EVA® can lead to improved decision making through a focus on capital and the cost of capital and the key drivers of value. The case study firms all plan to continue with EVA®. While it may not always deliver everything that is promises, EVA® works for these organisations.
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