

# **CHAPTER 10 - Multidimensional performance management**

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# CHAPTER 10 - Multidimensional performance management

## 10.6 Divisional performance

**Active reading.** Note that the comparison between divisions is not just about financial performance.

When an organization is structured in a way that has divisions or subsidiaries, it is useful to be able to set targets and monitor the performance of each division separately and, if sensible, to make comparisons. When comparing divisional performance, it is essential to make sure that the comparison is meaningful and that other factors are considered. For example, two divisions undertaking the same activity, but operating in different countries, may perform differently, due to the economic conditions prevailing in their market, such as the U.S. economy performing differently to Asian economies. Therefore, differences in performance are not just due to management performance. This emphasizes the importance of monitoring external environmental PESTEL factors and how they impact on different markets and the significance of comparing performance against competitors in the same market.

### 10.6.1 Levels of performance monitoring of business units

**Active reading.** Note that it is possible to use a mix of approaches for certain cost elements.

Organizations can be divided into strategic business units or operating/functional units for the purposes of monitoring performance. Typically, functional units are treated as cost centers in which costs are allocated to the functional units and monitored against a cost budget. If the organization can identify business units to which revenue streams and costs can be meaningfully allocated, they can be treated as profit centers. In this case, a series of profitability ratios could be used as financial performance indicators, for example, operating profit percentage. In cases where it is possible to allocate capital items, such as plant and equipment, buildings, and so on, the business units can be monitored as investment centers. Suitable financial performance indicators, in this case, might be return on investment.

In all cases, costs, revenues, and capital items need to be allocated on a meaningful basis; otherwise, the monitoring is not helpful. It is also essential to be able to monitor and report those costs that are controllable by the manager responsible for the business unit or cost unit. Apportioning costs such as central marketing costs can create time-consuming discussions and wasted resources if managers feel they are being penalized for something outside of their control.

The preferred approach is to strike a line at a controllable profit, or cost, and then show apportioned costs separately below the controllable line. This style of reporting enables managers to take ownership of their area of responsibility. Still, it keeps in front of them the fact that the unit benefits from decisions that are made centrally, such as central marketing. And that they are expected to contribute to the cost of providing those central activities.

The reporting of central services costs becomes significant when these types of costs are allocated to business units. For example, consider the use of a central I.T. function in organizations.

If a central I.T. function is treated as a cost center and costs are not charged out to users, it can encourage users to request more and more services, as there is no cost to the user. However, if charges are made to divisions at the cost of provision, based on usage, business units are aware that I.T. services cost money and are more prudent and careful in their requests. They may well undertake a cost-benefit analysis before requesting additional I.T. services. Indeed, the head office may require a business case to be made before any additional investment is made. A further step could be made, and the I.T. function makes a charge to divisions based on a market rate. This allows the I.T. function to operate as a business unit in its own right, which can result in I.T. staff being keen to “sell” services to divisions and actively seek out areas where they can assist. Therefore, there is a motivational aspect of the I.T. function derived from the approach taken to charging internal services.

One way of establishing a market rate is to investigate what it would cost the organization to outsource its I.T. function. By investigating this, it sets an external benchmark against which the I.T. function can be measured, and in some instances, it may be more efficient to outsource some of the essential I.T. functions. There are, however, strategic aspects here such as loss of control, confidentiality, and so on that need to be considered, again illustrating that cost is not the only consideration. This idea can take an extra dimension in that large organizations may decide that divisions can buy certain I.T. services from external providers; that is, they do not have to use the central I.T. function. This approach can add a degree of competitiveness to the I.T. function in that it encourages efficiency and effectiveness within the in-house service.

A possibility is that a function such as I.T. provision lends itself to a hybrid style of cost allocation. The provision of an organization-wide network is a decision that benefits the whole organization and is treated as a central “head office” cost. The costs of I.T. that are directly attributable to a business unit can be charged at cost to the units, for example, computers used by the business units become their assets, with the subsequent depreciation charges, maintenance (even if managed by the central I.T. function) and so on. Additional bespoke services required by divisions are charged at a market rate. The design of such a cost allocation system can ensure that a service function such as I.T. is contributing to the overall strategy of the organization.

## 10.6.2 Return on investment (ROI) and residual income (R.I.)

**Active reading:** Note the behavioral implications of comparing divisions.

Two conventional methods of monitoring divisional performance are, return on investment (ROI) and residual income (R.I.).

The return on investment is typically calculated as:

$$\frac{\text{Divisional profit before interest and tax (operating profit)}}{\text{Investment in the division}} \times 100 = \%$$

ROI is frequently used to compare divisional performance. However, it is important to compare performance against external benchmarks if available.

For example, economic performance is as much an issue as is managerial performance. If a division in Hong Kong is making a 25 percent ROI, yet the division in the U.S. is making a loss of 3 percent, does it mean that the management team of the division in Hong Kong is better? Apart from the fact that divisions may be operating in different sectors, competitor organizations in Hong Kong may be making 30 percent ROI, in which case the Hong Kong division is not doing as well as it should. Or if the competition in the U.S. is losing 5 percent, then the U.S. division is doing quite well.

The external comparison underlines the fact that external information, particularly of competitors, needs to be considered when making judgments about the managerial performance of divisions. It also highlights the need to set targets with external reference points rather than taking a purely internal viewpoint. Senior managers often focus on poorly performing divisions when, at times, they need to be pushing divisions that are meeting organizational targets if they are still below the competition.

The residual income is typically calculated, as shown in Table 10.2.

Table 10.2 Calculation of residual income

	\$
Divisional profit before interest and tax (operating profit)	x
Less a charge for the use of capital (notional interest)	(x)
Residual income	X

One aspect to note is that residual income is usually expressed as an absolute figure and is positive or negative. It is useful as a performance measure when the head office primarily controls the investment in the division. In some instances, this is said to be a better measure to use when considering further investments as it can reduce some of the behavioral implications of the ROI measure.

Suppose a division has achieved an ROI of 20 percent, beating the target set by the head office of 15 percent. The management team, who are keen to demonstrate continued high performance, may be reluctant to undertake a project that yields 17.5 percent. Although it is above the head office target if the division undertakes the project, it will reduce its average ROI to below 20 percent, and make the division look as if its performance has declined. Therefore, there is a dysfunctional or motivational aspect of ROI.

As RI is an absolute figure, if a project increases R.I. by \$100,000 then, all other things being equal, the management would be more motivated to undertake the project. R.I. uses the

concept of net present value (section 8.5) and is said to have the same properties in decision making, that is, a favorable outcome encourages acceptance, whereas a negative result discourages acceptance. The fact, however, that R.I. is often reported as an absolute figure can be a problem. For example, increasing profit by \$1,000 sounds good, but if it requires an investment of \$10,000,000, it is maybe not so good. It is, therefore, helpful to express R.I. as both an absolute figure and a percentage of the investment.

**Learning activity.**

Division X has the opportunity to undertake a project which will require an investment of \$150,000 and yield a profit of \$25,000. The parent company, XYZ Inc., sets a target return on investment of 12%, which is 2% above its cost of capital. Division X has, in recent years, achieved an ROI of 20%.

Calculate the ROI and R.I. of the project opportunity and advise whether the project should be undertaken.

A solution to the numerical element:

**ROI**

$$\frac{\$25,000}{\$150,000} \times 100 = 16.67\%$$

**RI**

*Cost of capital:*  $12\% - 2\% = 10\%$

*Capital charge:*  $150,000 \times 10\% = 15,000$

*Residual income:*  $\$25,000 - \$15,000 = \$10,000$

## 10.7 Economic value added

**Active reading.** Note the similarity to R.I., but also the rationale for adjusting the traditional profit or loss reported.

Economic value added (EVA™) was developed by a firm of consultants (Stern Stewart & Co., now Stern Value Management) as a means of measuring organizational performance. The economic value is the net operating profit after tax from which a deduction is made for the use of capital in the form of a capital charge, based on the weighted average cost of capital (WACC), to arrive at the economic value, shown in Table 10.3.

Table 10.3 Calculation of economic value added

	\$
Adjusted profits to arrive at net operating profits after tax	x
Capital charge (adjusted capital employed x weighted average cost of capital)	(x)
Economic value added	x

It is an absolute value, that is, a number rather than a percentage, and in a similar way to R.I., if used as an investment appraisal method, would encourage managers to undertake an investment if it increased the economic value added. In this way, it is said to be a good measure as it encourages managers to make decisions based on the interests of the shareholders and the organization.

Stern Stewart recommended that adjustments should be made to the financial accounting profit to derive an adjusted net operating profit. The typical adjustments include adding back noncash items and accounting adjustments, such as depreciation. This adjustment is made to arrive at a figure that is closer to cash generated. Other typical adjustments include research and development, marketing, and training. The underlying justification for adjusting these items is that they are an investment in generating future revenue streams rather than a charge against profits in the year in which they are incurred.

An adjustment is made to treat these items as investments, and therefore, added to the balance sheet. They are then written off over the period for which they are deemed to be generating revenue and, hopefully, profits. For example, a marketing campaign, particularly in the case of a new product, or indeed the research and new product development costs, may generate profits over a more extended period than one year. Therefore, it would seem logical that the associated costs should be written off over the same period to which they contribute to profits. EVA™ can be a difficult concept for nonfinance managers to understand the significance of the adjustments, therefore in practical terms, adjustments are made if:

- It is likely to have a material impact on EVA™
- Managers can influence the outcome
- The operating people can readily understand it
- The required information is relatively easy to track or derive

### Example of EVA

Yana Pasclovichski, the financial director of Alarm Inc., is currently looking at the performance of the company and has been exploring Economic Value Added (EVA™) as proposed by the consulting firm, Stern Stewart, as a possible way of aiding strategic decision making as to which areas of the business to develop in the future. Alarm Inc. has three divisions that serve different customer groupings.

Yana has provided the figures and information shown in Table 10.4.

Table 10.4 Information extracted from financial accounts

	Industrial & Commerce	Public sector (State-owned)	Residential (including property developers)	Company Total
	\$,000s	\$,000s	\$,000s	\$,000s
Net operating profit before interest and taxation (per financial accounts)	2,300	1,800	400	4,500
Net interest payable	220	200	80	500
Taxation paid on ordinary activities	420	250	80	750
Net operating assets (Book value)	8,000	5,000	7,000	20,000
Costs already accounted for in arriving at the net operating profit above				
Depreciation	300	700	200	1,200
Research and Development	500			500
Marketing	1,000	600	400	2,000
Training	600	400	200	1,200

Notes:

- Assume the taxation shown represents tax paid
- Research and Development relates only to the Industrial & Commercial division
- Research and Developments costs are to be written off over 3 years
- Marketing expenditure should be written off over 2 years.
- Training costs will continue to be written off in the year in which it is incurred
- The weighted cost of capital has been estimated to be 10%

Using the information provided by Yana Pasclovichski, restate the results of Alarm Inc. to show the EVA of each division.

The results of the restatement are shown in Table 10.5

Table 10.5 EVA for the three divisions

EVA	Industrial & Commerce	Public sector (State-owned)	Residential (including property developers)	Company Total
Suggested solution	\$,000s	\$,000s	\$,000s	\$,000s
PBIT	2,300	1,800	400	4,500
Add back depreciation	300	700	200	1,200
R & D Add back this year	500			500
R & D write off 1/3 this year	(167)			(167)
Marketing Add back this year	1,000	600	400	2,000
Marketing Write off 1/2 this year	(500)	(300)	(200)	(1,000)
Training - no adjustment required				0
Adjusted profit	3,433	2,800	800	7,033
Taxation	(420)	(250)	(80)	(750)
NOPAT	3,013	2,550	720	6,283
Capital charge	(913)	(600)	(740)	(2,253)
EVA	2,100	1,950	(20)	4,030
EVA as percentage of adjusted net assets (capital employed)	23%	33%	0%	18%
Balance sheet elements				
Net Operating Assets	8,000	5,000	7,000	20,000
Add back depreciation	300	700	200	1,200
2/3rd R & D carried forward	333			333
1/2 marketing carried forward	500	300	200	1,000
Adjusted net operating assets	9,133	6,000	7,400	22,533
Capital charge at 10%	913	600	740	2,253
ROI for comparison (PBIT/cap employed)	29%	36%	6%	23%

The figures shown in Table 10.5 adopts the approach to the adjustments of first adding back the item as if it had not been deducted from profits, then writing off the appropriate element under the principle of EVA. The same effect can be achieved by showing the net impact of these adjustments.

The analysis indicates that residential customers are destroying value (which is a strong statement). In contrast, the public sector customers appear to be adding the highest value (in relative terms – 33%) to the business. This is a different picture to that shown by the traditional profit and loss statement. It should be noted that this is only one period, and ideally, previous periods should be restated before any firm conclusion can be drawn. Still, the analysis might redirect management's attention to different areas of the business when developing strategies.



### 10.7.1 Benefits and drawbacks of EVA™

**Active reading:** Note the reference to shareholder value. Think about whether this conforms to a stakeholder approach, or are the two approaches compatible?

EVA™ is said to have several uses that may be of interest to an organization. For example, it can be used to set organizational goals and, therefore, could feature as a performance measure and target on a balanced scorecard. It can be used to determine bonuses at a divisional and whole organizational level and maybe a way of motivating managers to increase economic value and hence shareholder value. It can also be used to value companies and determine equity investments by focusing on the value-added potential of the organization.

EVA™ also introduces an element of accountability to divisional managers for investment decisions that benefit the company in the long term. This approach encourages managers to think about long-term issues rather than attempting a short-term fix. It also makes managers think along the lines of shareholders in terms of adding value to the business.

However, as with most techniques, there are some issues that an organization needs to be aware of if thinking of using EVA™ as a performance measure. It is complex, and managers who do not have a financial background can also find it challenging to understand. Therefore there will be a requirement for training and support at all levels in the organization. As it is a single financial measure, it is best used as part of a multidimensional approach to performance management.

There is also a high degree of subjectivity in estimating the length of time that items such as research and development, marketing, and training continue to generate revenue streams and, therefore, the period over which they should be written off.

### 10.7.2 Key factors to consider when implementing EVA™

**Active reading:** Think about the role of the accountant if EVA is implemented.

Some key factors can be considered when implementing EVA™ as a key driver for performance management.

- It is essential to ensure that everyone in the organization understands the concept of economic value added and that there is an agreement on the definition of organizational success.
- The overall strategy may need reformulating to focus on adding value with a resultant review of strategic direction and priorities.
- The cost of capital needs to be calculated, and, in some instances, this can be a useful exercise for an organization. Often organizations are not aware of their cost of capital

and, therefore, no real view as to the level of profit required to satisfy the capital providers who may be considered a significant stakeholder in many decisions.

- The use of external benchmarks is encouraged, which can benefit the organization by providing the incentive to improve.
- It can be used as targets for key employees, and indeed all employees, in viewing how they can add value. It can also be linked to a reward system.
- Introducing EVA™ may well involve a cultural change to focus employees on thinking about value-added, not just to shareholders but to stakeholders.
- There could be implications for the accounting system in that it will need to be adapted toward highlighting economic value added. It may, in some instances, require investment in information systems. To facilitate the use of EVA™ reporting, it is essential to avoid accounting complexity and keep it simple. There may also be a significant amount of training to undertake for managers to enable them to understand the concept fully.
- The value drivers need to be identified so that they become the focus of strategy and that the budgeting and strategic plans are fully integrated toward EVA™.