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# Answers

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1 Report

To: Board of Flack  
From: A. Accountant  
Date: June 2016  
Subject: Performance reporting and management issues at Flack

Introduction

This report evaluates the current performance report for Flack and the introduction of two new performance measures. Then, the effect of a proposed change in divisional performance measure is assessed. Next, the use of expected ROCE for new store proposals is evaluated. Finally, the report explains how the proposed new information system can help to improve business performance at Flack.

(i) Performance reporting at Flack

The current report has a number of strengths and weaknesses. These will be discussed according to whether the report:

- addresses the mission,
- contains appropriate information for decision-making,
- shows signs of being short term and
- is well presented.

The current mission can be broken down into two parts:

- to be the first choice for customers and
- to provide the right balance of quality, service and price.

There are three strategies for achieving this mission, reflecting stakeholder concerns:

- earning customer loyalty,
- utilising all resources and
- serving shareholders' interests.

The report does not address the first part of the mission. This can only be measured using external data but the report is utilising only Flack's internal data. This part of the mission relates to the first strategy to gain customer loyalty. Customer loyalty could be gauged through repeat purchases or market share information but neither is supplied. This is clearly important to a retailer and may be more easily gathered once the data from the new information system are available for inclusion in this report.

The report provides no measures of the balance of quality, service and price other than through the historic growth in revenue. It would only be through comparison with competitors or customer survey data that a picture of the mix of these qualities could be gained.

The second strategy of utilising resources requires that the key resources be identified. Clearly, the stores themselves (and thus the capital invested) are an important resource and the introduction of the revenue and profit per square metre and comparison with competitors will indicate the efficiency of their use. However, there are likely to be other important resources such as staff and no measure of their performance is offered. Staff costs are not shown in the trading account although a more sophisticated measure such as revenue per employee is a commonly used metric and would address this.

The report is much better on the third strategy of serving shareholder interests as it supplies two helpful measures: total shareholder return and return on capital employed. However, most shareholders will want comparison with benchmark returns within the retail sector and the market more widely, since these represent their alternatives.

The criticism of the company's management as being short term is reflected in the performance reporting. The report only contains for comparison budget information and the previous year's figures. There are no longer term forecasts or information on future capital investment. Also, there are few indicators which would be described as determinants of performance. These are often non-financial and focused on the external business environment (behaviour of customers and competitors).

As already noted, there is a significant gap in the information in the report as it contains no external information. Also, although revenue is broken down into broad product categories, no further information about growth within these categories nor the margins being earned is supplied. As a result, it could be questioned whether this break-down is worthwhile.

In terms of presentation, the data is clear and in a form which would be easily recognisable to those used to reading accounts. However, no narrative commentary is provided which would highlight the key features in the report such as major deviations from the budget or performance well outside industry norms. There should be a comment on each of the five areas within the mission and strategies as well as comments about specific, material issues arising in the period covered. The report could be made easier to read by reducing the volume of numbers present both by cutting out unnecessary measures (see earlier discussion of product categories) and also by rounding all figures to millions.

**(ii) New asset utilisation indicators**

Revenue and operating profit per square metre reflect the utilisation of the key capital asset used in their generation (the store). Therefore, they are directly addressing a major part of the aim of utilising all resources, however, they do not address *all* resources which the business uses. There are likely to be significant staff costs and so similar measures of revenue and operating profit per employee could also be introduced in order to reflect these human resources.

	<b>Metro</b>	<b>Hyper</b>	<b>Flack</b>
Revenue per sq. metre	13,702	13,165	13,251
Operating profit (\$'000s)	159,058	498,791	657,849
Operating profit per sq. metre	987	592	656

These measures reflect the importance of the use of the store's space which is an area which the business does not give sufficient attention as is reflected in the problems with divisional performance measures. Focus on these measures will require addressing issues of volume of sales and the profitability of those sales. The two types of store at Flack will have different impacts on these measures. For example, the smaller Metro stores may be capable of earning higher margins as they are convenient to customers while selling lower volumes. The Hyper stores may concentrate on selling in volume to customers who come to buy in bulk. However, in terms of the overall performance of the business it is essential that Flack sells in high volumes as it is a low margin business but it must not sacrifice profitability, in effect buying customers' revenue by selling at or near a loss.

**(iii) Divisional performance assessment**

The current measure of divisional operating profit reflects the trading in the period under consideration. Profit will link to the whole business's operating profit which is the correct level to reflect the efforts of the divisional managers. However, this measure only indirectly addresses the capital being used by the divisions (depreciation charged to operating profit). This is distorting the behaviour of the divisional managers.

The managers are not investing in refurbishing their stores which is causing the press (and presumably customers) to notice their run-down appearance. This may reduce the depreciation charge against operating profit. They are prioritising new store capital expenditure over the refurbishment since they are not being charged for the use of that capital (financing charges are deducted after operating profit is calculated). This may not be optimal since small spending on existing capital assets often yields higher returns than new spending (which may be subject to greater risks).

The proposal to change the divisional performance measure addresses the issue of not reflecting the capital used since residual income (RI) deducts an imputed interest charge. Divisions can then be set targets in terms of their RI. The difficulties in calculating RI lie in correctly setting the imputed interest rate and calculating the capital being employed by the division. However, since both divisions are types of stores they will have similar assets and so the same rules can be applied to each to fairly calculate the capital used. An advantage of RI is that the imputed interest rate can be changed to reflect the different risks of the divisions. The two divisions here do not seem to have significant risk differences unless the geographical locations introduce these (city centres and city edges). However, it is worth noting that using RI can discourage investment. As net book values of assets fall over time, RI automatically increases and 'do not invest' could become an attractive option to the managers.

Overall, the proposed change addresses existing problems and would be considered a normal solution to measuring divisional performance in this industry.

**(iv) Use of expected ROCE in new store appraisal**

The expected ROCE is calculated as:

<b>Demand scenarios</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
Revenue (\$m)	12.5	13	13.5
Probability (%)	20	50	30
Forecast operating margin (%)	4.1	4.3	4.4
Forecast operating profit (\$m)	0.5125	0.559	0.594
Expected operating profit (\$m)	0.5602		
Expected ROCE	13.34%		

The expected ROCE is above 13% which is Flack's required ROCE, so this should be an acceptable investment.

The use of expected values in the calculation of ROCE is appropriate if the probabilities used can be reasonably estimated and the decision is likely to be one which is made a number of times. Since Flack has opened many stores, it is likely to be able to predict volumes and margins with reasonable accuracy. Since Flack is going to continue to open stores, this decision will occur a number of times which makes using a probabilistic approach viable. In general, ROCE is neither considered as accurate nor as direct a measure of shareholder wealth as, for example, net present value (NPV).

**(v) Loyalty card system**

The proposed new information system will collect data from customers' purchases and store it for data mining purposes in a data warehouse. The capital required will be significant at \$100m (the equivalent of about 24 new stores at \$4.2m each). There will also be considerable annual running costs. However, the benefits could be significant although quantifying them will be difficult as they depend on influencing customer behaviour and so are not simply cutting costs.

The new system will help to address the mission of Flack as it will help the board to understand customers better and so improve their loyalty to the business. By focusing offers on those things which customers enjoy Flack can enhance the brand and also take the opportunity to sell greater volumes alongside the offered products.

The data warehouse will allow data mining for relationships, for example, geographical preferences for products; links between price offers and volumes sold; products which are often bought together; seasonality of product purchases. These relationships can then be used to address the CEO's three target areas of advertising, product range choices and price offers.

Potentially, there will be cost savings by more efficient advertising. The data on each individual customer can be searched to profile customers and identify their individual preferences. Marketing can then be targeted to groups of customers using products which they commonly buy. Data mining will also identify associated products (those often bought together) so that offers can be grouped, for example, with a price reduction on buying a linked pair of products.

A problem in most retail businesses is the size of the product portfolio which they offer since more products (and potentially more suppliers) require more effort to manage. The new system may allow a Pareto-style analysis where the least profitable non-essential products are identified and can be cut from the product range.

- 2 (a) Business process reengineering (BPR) involves radical and fundamental changes in the way processes in organisations are designed. A focus on the needs of the customer, and customer satisfaction, are key to BPR. BPR aims to improve key performance measures such as reducing costs, improving quality, service delivery and customer satisfaction.

The proposal is to move away from the existing functional structure where staff are attached to only one stage of the production process, or even to one type of machine within each function, to team working. This is a radical change for Cuthbert and as such, is an example of BPR.

#### **Reorganising into teams**

Currently, there is very little multi-skilling of production staff at Cuthbert. This was seen where there were insufficient trained zip machinists available for the emergency order for the Ceeland army, even though there were enough machinists to sew buttons. This led to the emergency order failing to meet the customer's requirements as it was not delivered on time.

Furthermore, it seems that machinists also prefer to work on one particular type of machine. This is probably because they are currently rewarded according to the speed of production, rather than the quality of production, and can work faster when using just one machine.

A change to team working would imply job enlargement for machinists, who would need to be trained so that they were multi-skilled in different parts of the production process. They could then perform the roles of other members of their team, to ensure that there were no bottlenecks in production.

The cost of reorganisation and the costs of training the machinists should be outweighed by the resulting improved efficiency and flexibility of production. In this way, there is more focus on the outcome (goods of the correct quality produced on time) and less focus on the individual tasks within the process, which is a key principle of BPR.

#### **Production teams are responsible for quality**

Cuthbert's brand has a strong reputation, and the use of its products for protection in harsh environments and by the armed forces means that quality is a key element of customer satisfaction. Cuthbert must be able to manufacture goods which are free of defects, unlike the emergency order for the Ceeland army.

Reorganising the production into teams of machinists, sometimes known as production 'cells', would make machinists responsible for decisions about quality of a particular product type. This should lead to improvements in quality and therefore to meeting the needs of the customer.

Reducing the number of processes for checking is typical of a reengineered process, and the quality checking currently performed by the supervisors would no longer be necessary. The production teams will be managing themselves in this respect, and the distinction between supervisors and machinists will be removed, which is again typical of organisations which have undergone BPR.

Encouraging machinists in each team to suggest improvements in the production process should bring about improvements in both quality and efficiency, and hence a reduction in costs. It is the machinists who are closest to the production process and may be able to see how it can be improved. Cuthbert could also consider a more formal system of incremental continuous improvements such as Kaizen costing.

#### **Tracking with RFIDs**

Typically, organisations with reengineered processes end up having a flatter hierarchy. It seems that the supervisors' current roles will no longer be required if the proposal is adopted. Quality checks will no longer be undertaken by them, nor will recording of batches, which will become automated using RFID tags. This should save salary costs and improve lines of communication in the business.

The use of RFID tags would capture the information required to manage the production process at source, and there would be no distinction between the gathering of information and processing it. This is in contrast to the current system of inputting batch data into a spreadsheet, and is a feature in organisations which have undergone BPR.

### **Practical and cultural aspects of the proposal**

New performance measures related to quality rather than just quantity produced will have to be developed and processes and systems developed in order to record and report these. New rewards systems will also have to be developed and introduced as a result of the changes proposed.

The proposal by definition represents a significant cultural change for Cuthbert, and may meet resistance by staff who may perceive it is a threat and a one-off cost cutting measure rather than a fundamental long-term change in the business. It will also impact the organisational hierarchy, relationships between employees and the roles within Cuthbert. There will be significant costs with training staff and with the disruption the transition may cause.

#### **(b) The current reward system**

The machinists are currently paid a basic hourly wage plus an amount depending on how many items they sew. This will encourage them to work quickly, which will reduce product costs. However, as they are not directly rewarded for the quality of the work which they produce, they may not be motivated to produce high quality work. Furthermore, in order to work quickly, machinists prefer to work on only one type of machine. This reduces Cuthbert's overall flexibility to respond to customer needs such as with failure to deliver the emergency order for the Ceeland army.

The production supervisors also receive a bonus according to how many items machinists in their team are able to sew. This too does not reward the production of high quality work, and supervisors may also neglect quality in order to increase the speed of production. The machinists in their teams could also see it as unfair that the supervisors obtain a bonus based on what they see as their efforts.

The production manager does not receive a bonus for production or quality. It seems that he has currently no direct motivation to improve on either of these two aspects of the process.

At 5% of salary, the bonus related to Cuthbert's overall profits is relatively small and it is unclear whether it is a significant motivator to any of the employees. Furthermore, machinists in particular may perceive their own efforts as too remote from the company's overall profit for them to bother to achieve it. Even if they were to be motivated by this, it is unclear what proportion of the total costs are related to direct labour as Cuthbert incurs many other costs such as advertising to maintain the brand. If the costs of direct labour were relatively low, even a large improvement in production efficiency by the machinists may have little effect on overall profit.

#### **Under the new proposal**

The existing reward systems would likely need to change if the move to team-based production were to be adopted.

It may still be appropriate to reward machinists with volume related bonuses, but as they worked in teams, a team-based performance bonus would be more appropriate. In that way the rest of the team would ensure that any underperforming machinists would improve their performance.

Rewards based on other factors such as quality, innovation, on time delivery and the ability to work as part of a team would also be appropriate and consistent with the machinists' enlarged job role. This would be a significant change for Cuthbert, where machinists are now being encouraged for the first time to bring about improvements in the production process. Rewards based on direct costs of production, or for the number of suggestions made by each machinist may be appropriate here.

New performance measures would need to be developed against which to align rewards to ensure that employees work towards the overall objectives of the organisation. New reporting systems will need to be put in place to feedback information regarding quality to each cell. This may incur additional costs in the development of existing or new information technology systems.

The commitment of senior management to these changes would be required, as well as communication and training of employees at all levels. This may again incur additional costs and divert management time away from existing activities.

### **3 (a) (i) Implementation of ABC**

ABC is an alternative to absorption costing, which is the method currently used by Dibble. ABC is a detailed fact gathering and data analysis technique.

In order to implement ABC production, overheads need to be grouped into cost pools as in the analysis of production overheads for Dibble in the management accounts extracts.

Then cost drivers for each cost pool must be identified. Cost drivers are the activities which bring about the costs, for example, the set up of the CAM machinery in Steel Division will be driven by the number of batches of production.

Once the cost pools and their associated cost drivers have been established, the cost per unit of cost driver can be calculated for each individual activity. The overhead costs are absorbed into each unit based on how much of the activity the unit uses, therefore, for example, units which require more inspection and testing will be allocated more of those costs. The overhead costs are then added to the prime costs in order to calculate the full cost of production.

## **(ii) Appropriateness of ABC**

ABC is especially useful where there is a wide range of complex products and where production overheads form a larger proportion of total production costs. In Steel Division, there is a large range of products, many of them bespoke or one-off designs. Production overheads form 28% ( $4,472/(20,605 - 4,533)$ ) of total production costs, and the use of ABC will be appropriate in this division.

ABC enables a more accurate cost of production to be calculated, which is very useful in setting product prices. This could be especially useful in Steel Division which has a wide range of products subject to a number of manufacturing processes. It will help to ensure that each product is priced high enough in order to produce an acceptable margin, but not so high so as to become uncompetitive. This is especially important as Steel Division's strategy is to produce bespoke products at prices comparable to competitors who produce simpler, more conventional products.

ABC enables managers to determine what activities drive the costs, and so focus on reducing those activities to control costs. Not all production overheads, for example, inspection costs of the coatings in Steel Division, are related to production volumes. It is equally possible to apply ABC techniques to overheads other than production overheads.

### **Problems with ABC**

ABC is less useful in businesses such as Timber Division where there is a small range of relatively simple products and where production overheads only comprise around 1% of total production costs. Of the production overheads in Timber Division, storage is by far the biggest and is likely to be driven by production volumes.

It may be difficult to determine what the drivers of production costs are. Storage costs could also be related to the insolvency of a customer. It may be impossible to allocate all overheads to the specific activities which drive them and so management will have to apply judgement.

Calculation of ABC may be time consuming, complex and poorly understood by managers. As such, the time and expense of doing so may not be justified. This appears to be the case in Timber Division where there are only a few, relatively simple products and few production overheads. Whereas in Steel Division, where there is a wide range of more complex products and a high proportion of production overheads, ABC is more appropriate than the traditional absorption costing method currently used at Dibble.

- (b)** ABM is the use of ABC methods in order to improve organisational performance by meeting the needs of customers using the lowest possible amount of resources or costs. ABM can be applied at the operational level or to help develop strategy.

### **Product pricing**

By accurately determining the cost of each product using ABC, Dibble would be able to ensure that prices are set so as to achieve an acceptable margin and also remain competitive with the prices currently charged in the rest of the market.

Steel Division charges customers a standard mark up of 10% on top of the \$650k subcontractors costs for the coating and painting of the steel. This means that customers are only being charged \$65k whereas the costs of storage of goods awaiting subcontract work and of transporting the goods to the subcontractor total \$695k.

By identifying the cost pools relating to the subcontract work, Steel Division can determine that it is making a loss on the subcontract work as a whole. It could therefore adjust the price of painted and coated products to ensure that an acceptable contribution margin is achieved. This is an example of operational ABM. At the strategic level, this type of information could help Dibble decide which product types to develop or discontinue.

The same principle may also apply where ABC can be used to identify which types of customers are the most profitable. In that way, resources can be focused on retaining and managing these customer groups. Action can be taken by additional advertising or product development in order to focus on these particular markets. By analysing customer profitability, it may be possible to reduce costs or increase revenue to make certain customer groups or product lines more profitable, both in the short and long term.

By identifying lines of business with poor profitability, Dibble could discontinue selling to particular customers, or selling particular products, if appropriate action could not be taken to improve profitability.

### **Analysis of activities**

By analysing the activities which drive the costs, Steel Division could determine which activities may not be required or could be done in a more efficient way. It may be possible to introduce improvements in the short term, for example, changes in the production process which may improve efficiency. In the longer term, strategic changes could be made to the way in which activities are undertaken, such as by outsourcing other activities in addition to the painting and coating which is currently outsourced.

Identifying the costs of transporting painted finished goods back from the subcontractors to Steel Division could lead them to evaluate ways to reduce this cost, for example, by despatching goods to customers directly from the subcontractors' premises. This is a non-value added activity, i.e. one which consumes resources, such as time and cost to transport goods to and from the subcontractors, but which is of no additional value to the customer. In contrast, ABM may help identify value adding activities, such as the coating and painting, which customers are prepared to pay for.

Of the five categories of production overheads, only machining time is a value adding activity, sometimes categorised as a primary activity. Setting up the CAM machinery is a secondary activity, which does not itself add value, but is required in order to perform a value adding activity (machining).

The other overheads, storage, transfer and inspection, are all non-value adding activities which should be eliminated or reduced. By identifying the activities which drive these costs managers can attempt to do this.

However, given the nature of Dibble's products, it is likely that some inspection will still be required for safety or commercial reasons, as shown by the litigation case relating to the faulty product. The production manager's proposal to increase the costs of inspection is inappropriate, as having identified inspection as a non-value adding activity, it would be better to focus attention on getting the product right first time.

#### **Design improvements**

Steel Division has a wide range of relatively complex or even bespoke products. ABM can help managers take decisions at the product design stage, where many of the product's costs are already committed. These can include using fewer or more standardised components, such as a more limited range of paints and coatings.

Where strategic decisions are being taken, for example, about new product lines or lines of business, such as with Steel Division's strategy to develop novel innovative products, ABM can help assess whether such developments are likely to be profitable at an early stage. This would help avoid development costs for products which could turn out to be unprofitable. This could also help allocate resources, such as capital investment, to the most profitable lines of business.

#### **Performance measurement**

For ABM to be successful, it will require the commitment of senior management and effective communication and training of employees at all levels in the organisation as to the benefits and methods of ABM. This will incur management time and cost, and divert attention from existing management activities.

New performance measurement systems will need to be developed. Employee rewards will need to be aligned to key performance measures, such as the reduction of non-value adding processes like inspection. This will ensure that employees work towards the objectives of the organisation. Additional information gathering systems, or adaptations to existing information systems, will also be required, which will again incur additional cost and may disrupt existing activities.

**4 Tutor note:** *The solution given is very detailed and candidates would not have to provide an answer of this length to score maximum marks. It is provided to give an idea of the scope of the relevant points which could have been made.*

- (a) Public sector organisations such as the Teeland universities receive all their funding from central government and do not have the generation of profit as an objective. Furthermore, their objectives such as 'improving the standard of education of the citizens of Teeland' cannot be measured in financial terms. The value for money of the universities can be assessed using the '3Es' framework of economy, efficiency and effectiveness.

#### **Economy**

This involves obtaining the inputs to the service at the lowest possible cost, while still maintaining the quality of the inputs. In practice, this may be difficult to do, and a reduction in cost may lead to a reduction in quality.

From the performance data given, the average annual payroll cost per member of academic staff is highest in Northcity University at \$62,286 (\$109m/1,750). This is 51% higher than Eastcity University, which has the lowest cost at \$41,237 of the four universities given. The high costs in Northcity University may reflect the fact that staff there may be more highly qualified or that highly skilled, trained staff are attracted to work there because of the high standards of teaching and academic research.

A higher payroll cost per member of academic staff may not necessarily mean a particular university is not giving good value for money. The relatively high salary costs in Southcity University of \$62,083 may simply reflect the higher costs of living in the capital city and so comparison between the regions may be inappropriate.

As such, there may be a conflict between this performance measure and the ability of the universities to achieve their objectives, such as to improve educational standards in Teeland. The politician's proposal to reduce salary levels for new recruits may reduce the number of appropriately qualified and skilled staff who wish to work there. This may reduce the standard of teaching and academic research, and as a result, the universities' performance against their stated objectives. This means that focusing solely on economy would not ensure the universities achieve value for money.

#### **Efficiency**

Efficiency measures the amount of outputs relative to the amount of inputs. The number of academic staff per student may be a suitable measurement but there may be differences between universities which would make it hard to compare results.

For example, there are 10.1 (17,600/1,750) students per member of academic staff in Northcity University, which is ranked number one in the Teeland government's provisional league table. There are 17.9 in Westcity University which is ranked much lower at 21. It would seem therefore, that increasing the number of students relative to the number of academic staff as per the politician's proposal may reduce the performance of the universities against their stated objectives and as such will not increase value for money.

The politician's comparison with the number of students per academic staff in neighbouring Veeland may not be appropriate. Whilst the politician's assertion that educational standards are higher in Veeland may be correct, the undertaking of high quality academic research may not be a key objective of the universities there, or the quality of research may be lower than in Teeland.

## **Effectiveness**

Effectiveness measures whether the objectives of the organisation are being met. The stated objectives of the Teeland universities are to improve the overall standard of education of citizens in Teeland, to engage in high quality academic research and to provide well-qualified university graduates to meet the needs of the graduate jobs market in Teeland.

### **Objective to improve the overall standard of education in Teeland**

Currently, there is no direct measure of the performance of the universities' stated objectives to increase the level of education of the citizens of Teeland. The number of graduates entering graduate jobs and the results of the TSOR survey may indirectly measure the effectiveness of the universities in achieving this aim. More direct measures such as the number of students completing their studies, or obtaining good results in university exams may be more appropriate.

The effectiveness of the universities in improving the standard of education should really be related to the entry requirements of each university. Westcity University is the lowest ranking of the four universities in the provisional league table and has the lowest proportion of graduates entering graduate jobs at 50% (1,750/(11,200/3·2)). It also receives the lowest amount of research funding per student at around \$1,250 (\$14m/11,200), but it has the lowest entry requirements, which have been relaxed to encourage students from a more diverse range of backgrounds to study there. Therefore, the improvement in educational standards relative to students' attainment on entry may be higher than the position in the league table may suggest.

### **Objective to engage in high quality academic research**

The stated aim of the universities to engage in high quality academic research is also not currently measured. The amount of research funding received from government and other organisations by each university may indirectly reflect the quality of the research there as providers of funds for research would probably look to fund high quality research.

This measure may, however, equally reflect that some types of research are more expensive than others. Southcity University, which is successful in science and technology subjects, receives \$15,592 per student compared to \$5,000 in Eastcity, which specialises in arts and humanities subjects. The funding received may be more indicative of the past quality of academic research rather than future quality, or may not even reflect the quality of the research and may be high due to wastage or inefficiency. The definition of 'quality' of research is unclear.

### **Objective to meet the needs of the graduate jobs market**

The number of graduates from each university obtaining graduate jobs each year is an indirect measure how well each university is achieving this objective. However, the number of graduate jobs filled may simply reflect the number of students at each university and demand for graduate jobs in the economy.

Many graduates, including the most talented of them, may take graduate jobs overseas. In which case, the measure of graduate jobs filled may not be a clear measure of the objective to meet the needs of the graduate jobs market in Teeland. A more precise measure of graduates entering graduate jobs in Teeland may be more appropriate. Even this may be misleading, if graduates later return from overseas to enter graduate jobs in Teeland.

The definition of what is a 'graduate' job is subjective and likely to change over time, for example, as a result of changes in the economy. This again limits the usefulness of this measure in determining whether universities have met this objective.

The TSOR survey is a measure of effectiveness reflecting a basket of measures, one of which is students' own perceptions of their future job prospects. The measures in the TSOR survey are, however, highly subjective according to individuals' personal perceptions, for example, about students' job prospects and the quality of teaching at the university. Furthermore, the survey also covers a wider range of factors such as their overall satisfaction with university life. As such, this may not reflect the stated aims of the universities in Teeland. The TSOR score for Westcity University is considerably higher than for all the other universities, despite it having the lowest overall ranking.

## **(b) Effect of league tables on the quality of the Teeland universities**

### **League tables encourage competition between universities**

The publishing of league tables of the performance of the universities in Teeland should stimulate competition for high ranking between them. This should encourage them to find better ways to improve the quality of the service, achieve their performance objectives, and deliver greater value for money.

### **Sharing of resources may be discouraged**

However, this may discourage knowledge or even resource sharing between the universities if they see themselves in competition for the best students and limited research funding. This could particularly be a problem if the university leaders were given performance targets and rewards based on their university's position in the league table. They may be encouraged to undertake 'gaming' and focus solely on their position within the league table to the detriment of other aspects of performance. This may mean the objectives for the universities overall in Teeland may not be achieved.

### **University leaders may focus on a narrow range of objectives**

Students' overall experience of university life may be influenced by access to social, pastoral and sporting facilities. Management time and resources may be diverted away from these important areas by focusing on a narrow range of performance objectives such as improving educational standards and high quality research in order to boost the position in the league table.

### **Use of league table to ensure accountability of the universities**

If the performance league tables are made publicly available, for example, on the internet as they are in Veeland, this should ensure the performance of the universities is transparent. This will mean that they are held accountable by the public for the quality of service and value for money which they provide.



### **League tables give choices to students and staff**

To be really effective, league tables should provide users of the performance data, such as the public, with the ability to make choices based on the data given. Prospective students and staff will be able to make choices about which university to study or work at according to their position in the league tables. In addition, providers of funding such as the government will be able to identify where corrective action or additional funding may be required.

This could also be a disadvantage of using league tables, as the best students are likely to be attracted to the best universities, which are in turn likely to attract the most funding for academic research. This may cause a reduction in the overall performance of lower ranking universities, and therefore a failure of the universities as a whole to achieve the stated aim of improving educational standards in Teeland.

### **League tables may not reflect variation of standards at each university**

There may also be considerable variation of the standards within one university, which a ranking in a league table will not address. For example, Southcity University offers courses in a variety of subjects and is particularly successful at science and technology subjects. This may mean that it achieves a high overall ranking in a league table, whereas its performance in other subjects may be weaker. For all of these reasons, the provision of league tables or performance data at a lower level, such as by subject area, may therefore be a better way to make the universities accountable to the public.

### **Regions may not be directly comparable**

There may be inherent differences between universities which make comparison using league tables misleading or of limited value. For example, Eastcity University specialises in teaching arts and humanities. It may be inappropriate to compare it to universities offering a wide range of courses or specialising in science and technology subjects. Similarly, it may be misleading to compare universities of different sizes or in locations in different parts of Teeland. Universities which also attract students from outside Teeland, for example, those in capital or major cities, are likely to have more access to the most able students.

Due to its capital city location, Southcity University may incur additional costs of providing facilities and have to pay staff more to reflect the higher cost of living there. It may be more appropriate to produce league tables at a lower level, like within individual cities, to make the comparisons more meaningful and eliminate the effect of regional variations such as this.

There may be differences in the way different universities collect and report performance data. These problems can be reduced by the use of consistent and enforced policies for compiling performance data.

### **Resources required to produce league tables**

Other problems relate to the targets chosen, external influences on results and cost of collating and measuring performance for the league table.

In Veeland, there is a sizeable government department dedicated to measuring performance. The cost of collecting performance data and compiling the league tables may therefore outweigh the benefits to be gained from doing so. It will use up resources which could be used, for example, in providing additional funding to the universities themselves.

### **Performance measures used to create league tables may be confusing and conflicting**

By having a large number of targets such as in Veeland, this may cause confusion to managers, who may not know which to focus on. Similarly, it may be difficult to decide which performance measures are the most important.

Many performance measures chosen are likely to conflict. Reducing the salaries paid to academic staff may make it harder to recruit and retain experienced and well-qualified staff, which may lead to failing to meet the universities' key objectives. Similarly, increasing the number of students per member of academic staff is unlikely to help achieve any of the universities' objectives as staff will have less time available for teaching and for engaging in high quality research.

### **The use of league tables may demotivate staff and students**

The Teeland politician's proposed target of a 5% annual increase in the number of students entering graduate jobs sounds very challenging and may be unrealistic. This will be especially so if accompanied by a reduction in the number of academic staff and a reduction of the salaries of new recruits. If the targets are felt to be unachievable by the university leaders, they may become demotivated, and give up on trying to achieve them altogether. This will especially be the case if this is an 'all or nothing' target. A more realistic target may at least ensure that some progress is made.

Students may also become demotivated if their university ranks poorly in league tables, even if the students themselves are satisfied with the standard of education they are receiving.

Similarly some performance measures, such as the number of students entering graduate jobs, which may be highly dependent on the economic conditions in Teeland, are not entirely under the control of the university leaders. The economic conditions in Teeland will be a key factor in determining the number of graduate jobs available there. University leaders may become demotivated by this measure as well and stop trying to improve.

### **The relative importance of different performance measures is subjective**

The weighting of the different performance measures used by the Teeland government in arriving at the provisional ranking of the universities is subjective. It is difficult to determine which measures are the most important, and hence how each should be weighted. The opinions of different stakeholders on which are the most important measures will also vary. Academic staff and students may view different measures as important compared to the providers of finance (the Teeland government) and organisations who recruit university graduates.

Determining the relative importance of different performance measures in order to publish a league table is therefore difficult. Furthermore, the measures chosen, and their relative weightings, could differ from those in other countries. This would make it difficult to benchmark performance against universities in other countries, such as Veeland.

- 1 (i)** Performance report
- Breaking down the mission – up to 3 marks
  - Two main aims, three CSFs/strategies, noting how these are logically connected
  - Comments on how report addresses mission and strategies – up to 6 marks
  - Missing information – up to 3 marks
    - Lack of external info; margins by product category
  - Report is 'short-termist' – up to 3 marks
  - Comments on presentation – up to 3 marks
    - Lack of narrative; data overload; rounding
- Maximum 14 marks
- (ii)** New asset utilisation indicators
- Addressing the mission – up to 3 marks
  - Calculations – 3 marks
  - Use in managing business performance – up to 5 marks
- Maximum 8 marks
- (iii)** Divisional performance
- Discussion of existing behaviour and measure – up to 5 marks
  - Discussion of new measure – up to 5 marks
- Maximum 8 marks
- (iv)** Decision-making under risk
- Calculations:
    - 1 mark for method
    - 1 mark for correct profit under each scenario
    - 1 mark for expected operating profit
    - 1 mark for expected ROCE
  - Comments – 1 mark per point; up to 4 marks
- Maximum 8 marks
- (v)** New information system
- Description and costs – up to 2 marks
  - Benefits – 1 mark per point up to 8 marks
- Maximum 8 marks
- Professional 4 marks
- Total 50 marks**

- 2 (a)** Explanation of BPR – up to 2 marks
- Each element of BPR proposal – up to 4 marks
  - Other practical issues – up to 4 marks
- Maximum 14 marks
- (b)** Evaluation of current system – up to 8 marks
- Recommendations – up to 6 marks
- Maximum 11 marks
- Total 25 marks**

- 3** (a) Implementation of ABC – 1 mark per point  
Maximum 4 marks
- (b) Appropriateness of ABC – up to 6 marks  
Problems with ABC – up to 6 marks  
Maximum 8 marks
- (c) Improving performance using ABM – 1 mark per point  
Maximum 13 marks

**Total 25 marks**

- 4** (a) Description of 3Es approach in public sector organisations – up to 3 marks  
Application of 3Es – 1 mark per relevant point  
Maximum 12 marks
- (b) Potential benefits – up to 6 marks  
Problems – up to 10 marks  
Maximum 13 marks

**Total 25 marks**