

P5 December 2008 Question 1

- 1 The Sentinel Company (TSC) offers a range of door-to-door express delivery services. The company operates using a network of depots and distribution centres throughout the country of Nickland. The following information is available:
 - (1) Each depot is solely responsible for all customers within a specified area. It collects goods from customers within its own area for delivery both within the specific area covered by the depot and elsewhere in Nickland.
 - (2) Collections made by a depot for delivery outside its own area are forwarded to the depots from which the deliveries will be made to the customers.
 - (3) Each depot must therefore integrate its deliveries to customers to include:
 - (i) goods that it has collected within its own area; and
 - (ii) goods that are transferred to it from depots within other areas for delivery to customers in its area.
 - (4) Each depot earns revenue based on the invoiced value of all consignments collected from customers in its area, regardless of the location of the ultimate distribution depot.
 - (5) Depot costs comprise all of its own operating costs plus an allocated share of all company costs including centralised administration services and distribution centre costs.
 - (6) Bonuses for the management team and all employees at each depot are payable quarterly. The bonus is based on the achievement of a series of target values by each depot.
 - (7) Internal benchmarking is used at TSC in order to provide sets of absolute standards that all depots are expected to attain.
 - (8)
 - (a) The Appendix shows the target values and the actual values achieved for each of a sample group of four depots situated in Donatellotown (D), Leonardotown (L), Michaelangelotown (M), and Raphaeltown (R).
 - (b) The target values focus on three areas:
 - (i) depot revenue and profitability;
 - (ii) customer care and service delivery; and
 - (iii) credit control and administrative efficiency.
 - (c) The bonus is based on a points system, which is also used as a guide to the operational effectiveness at each depot. One point is allocated where the target value for each item in the Appendix is either achieved or exceeded, and a zero score where the target is not achieved.

Appendix

Target and actual value statistics for Donatellotown (D), Leonardotown (L), Michaelangelotown (M), and
Raphaeltown (R) for the Year ended 31 October 2008

Revenue and Profit Statistics:

	Revenue (1)		Profit (2)	
	Target	Actual	Target	Actual
	\$m	\$m	\$m	\$m
Company overall	200	240	30	32
Selected depots:				
D	16	15	2.4	2.3
L	14	18	2.1	2.4
M	12	14	1.8	2.2
R	18	22	2.7	2.8

Note: For the purpose of calculation of each depot's points it is essential that actual profit as a percentage of actual revenue must exceed the target profit (%).

Customer Care & Service Delivery Statistics:

Selected Depots:	Target	Actual			
		D	L	M	R
	%	%	%	%	%
Measure (% of total):					
(3) Late collection of consignments	2.0	1.9	2.1	1.8	2.4
(4) Misdirected consignments	4.0	4.2	3.9	3.3	5.1
(5) Delayed response to complaints	1.0	0.7	0.9	0.8	1.2
(6) Delays due to vehicle breakdown	1.0	1.1	1.4	0.3	2.0
Measure (% of revenue):					
(7) Lost items	1.0	0.6	0.9	0.8	1.9
(8) Damaged items	2.0	1.5	2.4	1.5	1.8

Credit Control & Administration Efficiency Statistics:

	Target	D	L	M	R
(9) Average debtor weeks	5.5	5.8	4.9	5.1	6.2
(10) Debtors in excess of 60 days (% of total)	5%	?	?	?	?
(11) Invoice queries (% of total)	5%	1.1%	1.4%	0.8%	2.7%
(12) Credit notes as a % of revenue	0.5%	?	?	?	?

Other information:

	D	L	M	R
Aged Debtor analysis (extract):	\$000	\$000	\$000	\$000
Less than 30 days	1,300	1,500	1,180	2,000
31-60 days	321	133	153	552
Value of credit notes raised during the period (\$000)	45	36	28	132

Note: TSC operates all year round.

Required:

(a) Prepare a report for the directors of TSC which:

- (i) contains a summary table which shows the points gained (or forfeited) by each depot. The points table should facilitate the ranking of each depot against the others for each of the 12 measures provided in the Appendix. (9 marks)**
- (ii) evaluates the relative performance of the four depots as indicated by the analysis in the summary table prepared in (i); (5 marks)**
- (iii) assesses TSC in terms of financial performance, competitiveness, service quality, resource utilisation, flexibility and innovation and discusses the interrelationships between these terms, incorporating examples from within TSC; and (10 marks)**
- (iv) critiques the performance measurement system at TSC. (5 marks)**

Note: requirement (a) includes 4 professional marks.

A central feature of the performance measurement system at TSC is the widespread use of league tables that display each depot's performance relative to one another.

Required:

- (b) Evaluate the potential benefits and problems associated with the use of 'league tables' as a means of measuring performance. (6 marks)**

(35 marks)

1 (a) Report:

To: The Directors of TSC
 From: Management Accountant
 Subject: The performance of our depots
 Date: 5 December 2008

(i) Summary analysis of points gained (1) or forfeited (0) for the year ended 31 October 2008

Revenue and Profit Statistics:	Donatellotown	Leonardotown	Michaelangelotown	Raphaeltown
Revenue	0	1	1	1
Profit (see note below)	1	0	1	0
Customer Care & Service Delivery Statistics:				
Late collection of consignments	1	0	1	0
Misdirected consignments	0	1	1	0
Delayed response to complaints	1	1	1	0
Vehicle breakdown delays	0	0	1	0
Lost items	1	1	1	0
Damaged items	1	0	1	1
Credit Control & Administrative Efficiency Statistics:				
Average Debtor weeks	0	1	1	0
Debtors in excess of 60 days	1	1	1	1
Invoice queries (% of total)	1	1	1	1
Credit notes (% of revenue)	1	1	1	0
Total points gained	8	8	12	4

Workings:

(i) Profit point calculation:

Actual results:

e.g. Donatellotown = $2.3/15 = 15.3\%$ (1 point)

Leonardotown = $2.4/18 = 13.3\%$ (0 point)

(ii) Debtors in excess of 60 days (% of total)

	Donatellotown	Leonardotown	Michaelangelotown	Raphaeltown
Revenue (\$'000)	15,000	18,000	14,000	22,000
Debtor weeks	5.8	4.9	5.1	6.2
∴ Debtors	1,673	1,696	1,373	2,623
Less than 30 days	(1,300)	(1,500)	(1,180)	(2,000)
31–60 Days	(321)	(133)	(153)	(552)
More than 60 days	52	63	40	71
Debtors in excess of 60 days (% of total)	3.1	3.7	2.9	2.7

(iii) Value of credit notes raised as a % of revenue

e.g. Donatellotown = $\$45,000/\$15,000,000 = 0.3\%$

- (ii) The summary analysis in (a)(i) shows that using overall points gained, Michaelangelotown has achieved the best performance with 12 points. Donatellotown and Leonardotown have achieved a reasonable level of performance with eight points each. Raphaeltown has under performed, however, gaining only four out of the available 12 points.

Michaelangelotown is the only depot to have achieved both an increase in revenue over budget and an increased profit:revenue percentage.

In the customer care and service delivery statistics, Michaelangelotown has achieved all six of the target standards, Donatellotown four; Leonardotown three. The Raphaeltown statistic of achieving only one out of six targets indicates the need for investigation.

With regard to the credit control and administrative efficiency statistics, Leonardotown and Michaelangelotown achieved all four standards and Donatellotown achieved three of the four standards. Once again, Raphaeltown is the 'poor performer' achieving only two of the four standards.

- (iii) The terms listed may be seen as representative of the dimensions of performance. The dimensions may be analysed into results and determinants.

The results may be measured by focusing on financial performance and competitiveness. Financial performance may be measured in terms of revenue and profit as shown in the data in the appendix of the question in respect of TSC. The points system in part (a) of the answer shows which depots have achieved or exceeded the target set. In addition, liquidity is another aspect of the measurement of financial performance. The points total in part (a) showed that Leonardotown and Michaelangelotown depots appear to have the best current record in aspects of credit control.

Competitiveness may be measured in terms of sales growth but also in terms of market share, number of new customers, etc. In the TSC statistics available in (a) we only have data for the current quarter. This shows that three of the four depots listed have achieved increased revenue compared to target.

The **determinants** are the factors which may be seen to contribute to the achievement of the results. Quality, resource utilisation, flexibility and innovation are cited by Fitzgerald and Moon as examples of factors that should contribute to the achievement of the results in terms of financial performance and competitiveness. In TSC a main **quality** issue appears to be customer care and service delivery. The statistics in the points table in part (a) of the answer show that the Raphaeltown depot appears to have a major problem in this area. It has only achieved one point out of the six available in this particular segment of the statistics.

Resource utilisation for TSC may be measured by the level of effective use of drivers and vehicles. To some extent, this is highlighted by the statistics relating to customer care and service delivery. For example, late collection of consignments from customers may be caused by a shortage of vehicles and/or drivers. Such shortages could be due to staff turnover, sickness, etc or problems with vehicle maintenance.

Flexibility may be an issue. There may, for example, be a problem with vehicle availability. Possibly an increased focus on sources for short-term sub-contracting of vehicles/collections/deliveries might help overcome delay problems.

The 'target v actual points system' may be seen as an example of **innovation** by the company. This gives a detailed set of measures that should provide an incentive for improvement at all depots. The points system may illustrate the extent of achievement/non-achievement of company strategies for success. For example TSC may have a customer care commitment policy which identifies factors that should be achieved on a continuing basis. For example, timely collection of consignments, misdirected consignments re-delivered at no extra charge, prompt responses to customer claims and compensation for customers.

- (iv) The performance measurement system used by TSC appears simplistic. However, it may be considered to be measuring the right things since the specific measures used cover a range of dimensions designed to focus the organisation on factors thought to be central to corporate success, and not confined to traditional financial measures.

Internal benchmarking is used at TSC in order to provide sets of absolute standards that all depots are expected to attain. This should help to ensure that there is a continual focus upon the adoption of 'best practice' at all depots. Benchmarks on delivery performance place an emphasis upon quality of service whereas benchmarks on profitability are focused solely upon profitability!

Incentive schemes are used throughout the business, linking the achievement of company targets with financial rewards. It might well be the case that the profit incentive would act as a powerful motivator to each depot management team. However, what is required for the prosperity of TSC is a focus of management on the determinants of success as opposed to the results of success.

(Alternative relevant discussion would be acceptable)

- (b) A central feature of many performance measurement systems is the widespread use of league tables that display each business unit's performance relative to one another. In the case of service organisations such as TSC the use of league tables emphasises the company's critical success factors of profitability and quality of service by reporting results on a weekly basis at the depot level. The fact that such league tables are used by management will actively encourage competition, in terms of performance, among depots. The individual position of a business unit in the league table is keenly observed both by the manager of that unit and his/her peers.

In theory, performance is transparent. In practice although each depot performs essentially the same function and is subject to the same modes of measurement, circumstances pertaining to different business units may vary significantly. Some depots may be situated near to the hub (main distribution centre), some may be located far away and some may be in urban zones with well developed road networks whilst others may be in remote rural areas. Measuring performance via a league table makes no allowance whatsoever for these relative differences, hence, inequality is built into the performance measurement system.

Moreover, depot managers might be held responsible for areas over which they have no formal control. The network nature of the business suggests that there will be a high degree of interdependence of depots; the depot responsible for collection will very often not be the depot responsible for delivery. Therefore, it is frequently the case that business may be gained for which the collecting depot receives the revenue, but for which the delivering depot bears the cost. Obviously this impacts upon the profit statements of both depots. The formal system might not recognise such difficulties, the corporate view being that 'the business needs to be managed'; the depots should therefore see any such anomalies as mild constraints to work around rather than barriers to break down. In such circumstances delivering depots and collecting depots should discuss such problems on an informal basis. Such informal discussions are aided by close communications between depots recognising the interdependencies of the business.

			Marks	Marks
1	(a)	(i) Revenue	0.5	9
		Profit	0.5	
		Customer care & service delivery	3	
		Credit control and administration efficiency	5	
	(ii)	Overall comment on ranking	1	Maximum 5
		Analysis of each of the three sections in table	5	
	(iii)	Inter-relationship of dimensions/results/determinants	2	Maximum 10
		Definition/examples of financial performance and competitiveness as aspects of results	2 x 1.5 3	
		Definition/examples of determinants of quality, resource utilisation, flexibility and innovation	4 x 1.5 6	
	(iv)	Comments (on merit)	5	Maximum 5
		Note – Requirement (a) includes 4 professional marks		
				Maximum 29
(b)	Benefits	4	Maximum 6	
	Problems	4		
				Total = 35