
Answers

1 (a) Building and Monitoring critical success factors

Critical success factors (CSFs) are those areas of business performance where the company must succeed in order to achieve its overall strategic objectives. Monitoring CSFs are those that are used to keep abreast of ongoing operations, for example, comparison of actual results to budgets or industry averages. Building CSFs are those which look to the future of the organisation and its development, for example, the launch of niche products such as music concert films or the use of new distribution methods such as downloadable films.

(b) Information for establishing CSFs

The company can use information about the internal and external environment to set its CSFs. Relevant external information would include the structure of the industry and the strategy of FP's competitors. The geographical location of production and the main sales markets may also be relevant. Film is a hit driven industry where word of mouth can lead to success, therefore, recognition of the product and the brand ('Film Productions') by the public would lead to success. For example, the Walt Disney Company has achieved a high level of brand recognition that has enabled it to expand into other entertainment areas using characters from its films.

Relevant internal information would include measures of seasonality on sales which will dictate the timing of film releases and effectiveness of marketing campaigns. By forecasting the size of the market along with likely levels of competition, profit can be optimised. However, these forecasts will be subject to uncertainty and so the information systems will need to be flexible and allow probabilistic analysis. A CSF based on the quality of these forecasts would therefore be appropriate. Other internal sources could include measures of the cost per film and the time taken to produce a film.

Other possible information could include contingent factors (those that depend on specific threats or opportunities facing FP).

(c) Performance indicators linked to the CSFs

Audience satisfaction – performance indicators are:

- Sales per film – currently the company releases an average of 6-4 films per year and makes about \$31.25 million on each one. These figures should be compared to industry averages. Trends on sales per film should be monitored for indications of changes in consumer taste.
- Brand recognition – consumers should be surveyed to identify if the FP name is known and used as an indicator of quality when selecting films. If FP regularly uses certain artists (directors or film stars) then positive consumer recognition of these names will indicate satisfaction.
- Repeat viewings – with TV showings, it will be possible to measure viewers for each showing of the film and monitor the decline in viewing over repetitions. The level of DVD purchases following a cinema release will also indicate customer satisfaction with customers actively wanting to own their own copy of a favourite film.
- Awards won – number of awards won will indicate success. However, the level of recognition of any award must be brought into account as major ones such as those voted on by the public or those whose ceremonies are widely reported have the greatest impact.
- Response of the media – scores by film critics often appear in the media and these give a measure of satisfaction although this category must be treated carefully as critics often look for artistic merit while FP is seeking commercial success and broad audience acceptance.

Profitability in operations – performance indicators are:

- Industry average margin – collect data on competitor companies to set an appropriate benchmark. This will require care to ensure that appropriate comparator companies are chosen, for example, those with a production budget similar to FP's of \$18 million per film.
- Time in production – the cost of a film will depend on the length of time it takes to produce. If the film is intended to meet a current customer demand it may require to be produced quickly, in order to meet revenue targets. Therefore, the time in production will affect both sales and cost levels so altering the gross margin. Again, it would be helpful to identify if films meet their production schedule and if these schedules compare favourably to those of other film companies.
- Costs – the costs should be broken down into categories such as those for artists, production technicians and marketing. The cost structure for each film should be compared internally, to others that FP produces and also externally, to available figures for the industry.

(d) Impact on FP's information systems

The company website can collect audience survey results and comments posted on the site. Consumers can be drawn to the site with clips and trailers from current films and those in production. The site can log the frequency with which films are viewed and if audience members create accounts then further detail on the age, gender and location of the audience can be collected. This will allow a more detailed profile of the customer base for FP to be created and will be used to help in decisions about what films to commission in the future. The account members can be given the opportunity to score each film providing further information about satisfaction.

The company could also consider scanning the websites of its competitors to identify their performance – especially their published results which will provide benchmark information on gross margin levels.

A management information system (MIS) will collate the information from individual transactions recorded in the accounting system to allow middle level management to control the business. This system will allow customer purchases to be summarised into reports to identify both products that sell well and the customers (such as cinema chains and TV networks) who provide the main sources of revenue (indicators of satisfaction). The level of repeat business on a customer account will give an indication of the satisfaction with FP's output. The system will also produce management accounts from which gross margins will be drawn and it should be capable of breaking this down by film and by customer to aid decision-making by targeting FP's output to the most profitable areas. This will aid decision-making about the performance of the production team on a film and can be used to set rewards for each team.

An executive information system (EIS) is one that will supply information to the senior management of the organisation allowing them to drill down into the more detailed transaction reports where necessary. The EIS will provide summarised information, focused on the key performance indicators in order to allow the directors to quickly judge whether the company is meeting its CSFs. It will draw on internal sources such as the MIS and also external sources such as market data on revenues that different films are earning at the box office.

**2 To: CEO
From: A Accountant
Date: 9 December 2010**

Subject: Costing systems and budgetary controls at RL

Introduction

Firstly, the costing and pricing methods are reviewed and results compared between the current absorption costing method and one using Activity Based Costing (ABC). Then, the impact of the choice of cost system is evaluated. Finally, the report provides an explanation of how a company could eliminate its use of budgets but still remain in control of the business and an evaluation of whether this would be a suitable choice for RL.

(a) Costing systems

The costing system is important in RL not just as a method of reporting activities in the business but also because it sets the price that the customer pays and so affects competitiveness. Absorption costing is a traditional system of allocating overhead costs to products based on production activity (labour hours in RL's case). ABC is an alternative for the allocation of overheads intended to capture the different activities that lead to costs being incurred. The principle benefit of ABC is that identification and monitoring of these activities leads to more accurate cost control.

ABC is most appropriate where overheads form a large proportion of the costs (at RL they are 23% of the total which is significant but not dominant). ABC is most often used in manufacturing where there are small batch sizes and significant tailoring of the product to customer specifications as is the case with RL.

Using Order 11784 as an example, RL would normally have calculated the cost per unit of this order at \$2,556 and priced it at \$3,706. Using ABC, RL would have costed the units at \$3,194 each and priced them at \$4,631, which represents an increase of 25%. The overhead allocated to the order by the traditional method is \$596 while ABC allocates \$1,234 per unit sold on the order. (The detailed workings are in the attached appendix.)

ABC has captured a significant underpricing of this order. The major components of the overhead can now be identified as the time spent discussing the order and the number of purchase orders that subsequently had to be raised. Management should now investigate whether such orders should be repriced at a different margin or whether action needs to be taken to make the call handling and purchasing associated with the order more efficient. The impact on the customer and competitive position of RL should be considered especially regarding any increase in selling price.

(b) Beyond Budgeting

The monitoring of variances between actual and budgeted variance is often the primary control mechanism available to the management of a company. Therefore, the suggestion of dropping the process which forms a major part of the finance department's efforts in a year is likely to be greeted with surprise.

The process known as going beyond budgeting involves replacing the annual system of a centrally created budget with a more flexible system of targets. Performance measurement changes from monitoring variances from the budget towards measuring achievement of strategic goals, adding value and performance against suitable benchmarks.

The new system will use forecasts produced and revised regularly by the line managers, thus devolving decision-making. The forecasts will often be more important for cashflow monitoring rather than cost control. The targets are intended to guide rather than constrain the line managers thus improving their motivation.

The approach of going beyond budgeting is considered appropriate in industries where there are rapid changes in the business environment and where intangibles such as know-how are key to competitive advantage. This appears to be the case for RL as it operates in a sector dominated by technological change. The traditional budgetary approach has drawn criticism as it sets fixed targets which are not responsive to change during the budget period. The method also sits uncomfortably with management methods such as total quality approaches since they tend to preach a continuous improvement to processes. Budgets can also struggle in organisations using other radical change approaches to management such as business process re-engineering. As RL has been going through a period of poor performance, change is likely to be a feature of its operation in the near future.

Budgets are also criticised as stifling creativity in organisations. This creativity may help RL in finding solutions to its current financial difficulties. Budgets can be perceived as an imposition of top-down control and so conflict with giving all employees power to make decisions. A culture of innovation and employee empowerment would help to combat the problems faced by RL of losses of competitive position and key staff.

Finally, budgets can encourage gaming behaviour where staff act in the interests of expanding or padding their own budgets without considering the overall impact on the company. The focus on value-added targets of going beyond budgeting can help to avoid such dysfunctional behaviour.

Conclusion

A costing system change may be warranted as ABC appears to provide valuable additional information that will assist RL in addressing its financial problems. A detailed cost benefit analysis will have to be undertaken to identify if the extra work in collecting data on activities is warranted by this improvement in information for decision-making.

Additionally, RL appears to derive its advantage from the quality of its products and so innovation and flexibility in manufacturing and handling customers' needs will be paramount. Therefore, a non-budgetary system of control could be used at RL provided sources for appropriate alternative targets can be found.

Appendix:

Price per unit using Absorption costing and ABC for each unit of Order 11784

Standard cost	Direct		1,959.96	
	O/hd allocation		596.22	
			<hr/>	
	[Standard absorption rate = 14,190,000/(23,800*3)]		2,556.18	
	Profit element		1,150.28	
			<hr/>	
	Price		3,706.46	
Order 11784	Units ordered		16	
		Total of cost of activity \$'000s	No of driver units	Cost per driver unit \$
	No of minutes on calls to customer	7,735	899,600	8.60
	No of purchase orders raised	2,451	21,400	114.53
	No of components used in production	1,467	618,800	2.37
	Administration of production (absorbed as general overhead)	2,537	71,400	35.53
		Driver units on Order	Cost allocated to Order \$	Cost per unit on order \$
	No of minutes on calls to customer	1,104	9,492	593.28
	No of purchase orders raised	64	7,330	458.13
	No of components used in production	512	1,214	75.86
	Administration of production (absorbed as general overhead)	48	1,706	106.60
ABC cost			\$	
	Direct		1,960.00	
	O/hd allocation using ABC:			
	Customer service		593.28	
	Purchasing and receiving		458.13	
	Stock management		75.86	
	Administration of production		106.60	
			<hr/>	
			3,193.87	
	Profit element		1,437.24	
			<hr/>	
	Price		4,631.11	
Difference between methods			24.9%	

Tutorial note:

Calculating costs/prices per unit or as totals for the whole order are both equally acceptable.

- 3 (a)** The value-based approach takes the primary objective of the business to be maximising shareholder wealth and seeks to align performance with this objective. The principle measure used at the strategic level will be economic value added (EVA™). EVA™ is equivalent in the long term to discounted cash flow which is widely used as the valuation method for shares by equity analysts. (Other relevant value measures might be market value added and shareholder value added.)

By using this as the sole measure of performance, management is focused and they will be able to avoid conflicts which occur when there are multiple objectives and measures. The measure can be applied to decisions at all levels within the

organisation (strategic, tactical and operational) so that the company is unified in its goal. As only a single measure is used, the variables which drive performance are clear within the calculation of EVA™. These value drivers can be used by managers to achieve their value-based targets which are set from the strategic value-based goal.

- (b) The performance of LOL has declined with earnings per share falling by 23% (W2) from last year. Normally, this would imply that the company would be heavily out of favour with investors. However, the share price seems to have held up with a decline of only 12% compared to a fall in the sector of 26% and the market as a whole of 35% (W3). The sector comparison is more relevant to the performance of LOL's management as the main market index will contain data from manufacturing, financial and other industries. Shareholders will be encouraged by the implication that the market views LOL as one of the better prospects within an outperforming sector.

This view is consistent with the calculated positive EVA™ for 2010 (\$22.6m, (W1)) which LOL generated. EVA™ has fallen from 2009 but it has remained positive and so the company continues to create value for its shareholders even in the poor economic environment. It therefore remains a worthwhile investment even in a falling market.

Workings:

(W1)

EVA calculations for the periods given are:

	2009	2010
	\$m	\$m
Profit after interest and tax	35.0	26.8
Interest (net of tax at 25%)	3.0	5.9
Net operating profit after tax (NOPAT)	38.0	32.6
Capital employed (at year start)	99.2	104.1

Assumptions:

Economic and accounting depreciation are equivalent.

There are no non-cash expenses to adjust in the profit figure.

There are no operating leases to be capitalised.

There are no additional adjustments to make regarding goodwill.

Cost of Capital

WACC = (%e x Ke) + (%d x Kd)

2009 (50% x 12.7%) + (50% x 4.2%) = 8.45%

2010 (50% x 15.3%) + (50% x 3.9%) = 9.60%

EVA = NOPAT – (Capital employed x WACC)

2009 38.0 – (99.2 x 8.45%) = 29.6

2010 32.6 – (104.1 x 9.6%) = 22.6

(W2)	2009	2010	Change
EPS (profit after interest and tax/av no of shares) cents	21.88	16.75	-23.4%

(W3)

Stock market information

	2009	2010	Change
Main market index	2,225.4	1,448.9	-34.9%
Retailing sector index	1,225.6	907.1	-26.0%
LOL share price (\$'s)	12.2	10.7	-12.3%

- (c) VBM provides focus on shareholder wealth but it can be argued that a single profit measure can do the same. Value measures are considered to be superior to profit measures because they take into consideration the capital employed and cost of capital. These variables are less clear in a profit measure. Also, although value measures are calculated from profit figures they are adjusted in order to bring them closer to a cash flow measure of performance which is less affected by the various accounting adjustments such as depreciation. (Here we have assumed in calculating EVA™ that accounting and economic depreciation are the same but with greater information on the company we may be able to make a better estimate to the cash performance of the company.)

A disadvantage of value-based measures like EVA™ compared to profit is the unfamiliarity and complexity of the calculation. The calculation of the cost of capital is encumbered by the assumptions of CAPM and it is based on historic data which may not be repeated in the future (share values are based on expected dividend flows). These difficulties can be overcome by a process of education and training for the staff and shareholders. Additionally, the use of EVA™ as the sole value-measure as suggested by Stern Stewart may be too simple and overlook other value drivers.

As a tool for decision-making, EVA™ can be subject to manipulation by choosing projects with low initial costs to provide a short-term boost to the value measure in the same way as profit measures. It may not address the weaknesses in project appraisal that drive many companies to use net present value, which recognises the increase in shareholder wealth over the life of the whole project in question.

- 4 (a) Government regulations relevant to FGH's environmental strategy include requirements to recycle materials, limits on pollution and waste levels along with new taxes such as carbon levies to add additional costs. Performance indicators would be additional costs resulting from failure to recycle waste, fines paid for breaches and the level of environmental tax burdens.

The general economic climate is relevant to the strategy including factors such as interest, inflation and exchange rates. For FGH, the general economic environment is not good and cost savings from reductions in energy use would help to offset falling profits. Also, the difficulties indicated in raising capital could be monitored through the firm's cost of capital. This would be especially relevant if the environmental initiatives lead to significant capital expenditure for FGH.

Trends and fashions among the general public appear to be relevant for FGH as the public will be end-users of its services and environmental action could improve the brand image of FGH. Suitable performance indicator would be based around a score in a customer attitude survey.

Technological changes in the capabilities available to FGH and its competitors will affect its environmental strategy. New environmentally efficient technologies such as hybrid cars and solar recharging cells would be relevant to the cost and product sides of FGH. Performance indicators would involve measuring the impact of the use of new technology on existing emission data.

- (b) The company has a target of cutting emissions by 60% of their 2001 values by the year 2017. Overall, it has cut emissions by 38% in the first nine years of the 16-year programme. There was a reduction of 16% in the last year of measurement. If this rate of improvement is maintained then the company will reduce its emissions by 82% ($62\% \times (84\% \wedge 7)$) by 2017. However, it should be noted that it is unlikely that there will be a constant rate of reduction as it normally becomes more difficult to improve as the easy actions are taken in the early years of the programme.

The initial data are rather complex and so to summarise, three categories for the three types of transport were considered (Road, Rail and Air). The largest cut has been in rail related emissions (63%) while the contribution from road transport has only fallen by 38%. The road emissions are the dominant category overall and they are still falling within the programmed timetable to reach the target. However, it is clear that air travel is not falling at the same pace but this may be driven by factors such as increasing globalisation of the telecommunication industry which necessitates travel by managers abroad to visit multinational clients and suppliers.

One unusual feature noted is that the mix of transport methods appears to be changing. Rail travel appears to be declining. This is surprising as rail is widely believed to be the lowest emitting method from these forms of travel. However, caution must be exercised on this conclusion which may be due to a change in the emissions technology relating to each category of travel rather than the distance travelled using each method.

The major change that is apparent from the basic data is the move from petrol to diesel-powered motor vehicles which in the commercial fleet appears nearly complete. It will be more difficult to move company and private cars to diesel-power as there will be an element of choice on the part of the car user in the type of car driven.

Working

Measured in millions of kgs	2001 Base year	2009	2010	Change on base year
Commercial Fleet Diesel	105.4	77.7	70.1	-33%
Commercial Fleet Petrol	11.6	0.4	0.0	-100%
Company Car Diesel	15.1	14.5	12.0	-21%
Company Car Petrol	10.3	3.8	2.2	-79%
Other road travel (Diesel)	0.5	1.6	1.1	120%
Other road travel (Petrol)	3.1	0.5	0.3	-90%
Rail travel	9.2	9.6	3.4	-63%
Air Travel (short haul)	5.0	4.4	3.1	-38%
Air Travel (long haul)	5.1	7.1	5.4	6%
Hire Cars (Diesel)	0.6	1.8	2.9	383%
Hire Cars (Petrol)	6.7	6.1	6.1	-9%
Total	172.6	127.5	106.6	
Index	100%	74%	62%	
	YoY change	-16%		

Simplifying categories

	2001 Base year	2009	2010	Change on base year
Road travel	153.3	106.4	94.7	-38%
Air travel	10.1	11.5	8.5	-16%
Rail travel	9.2	9.6	3.4	-63%
Total	172.6	127.5	106.6	-38%

Mix of travel method in each year

	2001 Base year	2009	2010
Road travel	89%	83%	89%
Air travel	6%	9%	8%
Rail travel	5%	8%	3%

- (c) The analysis could be improved by collecting data on the total distances travelled so that employee behaviour can be tracked. This would allow measurement of the effect of switching away from physical meetings and using teleconferencing facilities. This may be particularly effective in cutting air travel which has been noted as a problem area.

It would also allow assessment of the homeworking scheme which should reduce total distance travelled. Although, the full environmental benefit will not be apparent as much of the travel would have been a regular commute to work which an employee will not be able to claim and so is unlikely to record.

Finally, the collection of distance travelled data will allow a measure of the effect of changing modes of transport by calculating an average emission per km travelled.

Tutorial Notes:

- Requirement (a) could be answered using any sensible set of headings for example, PEST and PESTEL.
- The working given in this solution is more detailed than would be required to produce a good answer to this question. It is here to give detailed explanation of the calculations.

- 5 (a) Quantitative models such as the Altman Z-score use publicly available financial information about a firm in order to predict whether it is likely to fail within the two-year period. The method uses a model equation into which the financial data is input and a score obtained. The advantages of such methods are that they are simple to calculate and provide an objective measure of failure. However, they only give guidance below the danger level of 1.8 and there is potential for a large grey area in which no clear prediction can be made. Additionally, the prediction of failure of those companies below 1.8 is only a probabilistic one, not a guarantee. The model is based on a statistical analysis of historic patterns of trading by a group of companies and may not be relevant unless the company under examination falls within the same economic circumstances and industry sector as those used to set the coefficients in the model. These models are open to manipulation through creative accounting which can be a feature of companies in trouble.

Qualitative methods are based on the realisation that financial measures are limited in describing the circumstances of a company. Models such as Argenti's rely on subjective scores to certain questions given by the investigator. A score above a certain level indicates potential disaster. The advantage of the method is the ability to use non-financial as well as financial measures and the judgement of the investigator but this is also a weakness as there is a danger that the investigator will give scores to ensure the conclusion agrees with first impressions.

- (b) The Z score of RMB in 2010 is 1.45 which is below the danger level of 1.8 and so indicates that RMB is in danger of becoming insolvent within the next two years. The Z score has been falling for the last two years through the grey area between the safe level of 3 and the danger level of 1.8.

During this period, the variables in the model have been roughly static or have shown significant declines. About half of the decline of the Z-score from 2.7 to 1.4 can be explained by the deterioration of variable x4 which measures the market value of the company's shares to its debt. Debt has been building due to the investment programme and the share price (and so the market value) has fallen by 14% over the last year. It would be helpful to identify the relative performance of the share price against RMB's competitors to see if this is related to the company's specific problems or is due to general market conditions. The other significant reduction is in variable x3 which shows a failure to derive profit from the assets available. However, this could be a timing effect as the profits from the new product will occur over many subsequent accounting periods but the asset value will increase immediately in line with the investment programme.

- (c) The qualitative problems can be broken down according to the Argenti model into three broad areas: defects, mistakes made and symptoms of failure. RMB exhibits the following defects – a domineering CEO, a failure to split CEO/Chairman roles and a passive senior management. These are structural problems within the company that will obstruct any effort to change direction if that direction is leading the company downwards.

It appears that RMB may also be making mistakes (in fact, the company illustrates all three of the classic errors noted by Argenti). It is overtrading as revenue rises and this is mainly funded by debt. As a result, gearing has risen from 107% to 197% and interest cover has fallen from 8.8 to 2.0. Additionally, the future of the company seems to depend on one big project. The higher gearing increases the financial risk that the company will fail to make its loan repayments. The dependence on the single new product demonstrates a lack of diversification which also signals greater risk.

Finally, symptoms of failure are not yet apparent from the information to hand. This may imply that there is still time to correct matters as these are often the final signals of failure e.g. creative accounting being employed to massage the financial statements.

- (d) The outlook for RMB appears bleak when only looking for the bad points, however, the company is still making profits (\$65m in 2010) and its revenues are growing (by 23% over the last year). This suggests that customers are taking up the new product. It is not surprising that in the early stages of this project that the capital expenditure is high and returns have yet to materialise.

Overall, the company is clearly showing signs of financial strain from the project but more work is required before coming to a final conclusion. Further data required would include a cash flow projection to ensure that as the product matures there will be funds to pay the new borrowings. The decline in operating margin from 21% to 10% requires explanation and action as this indicates problems in control of the business. Detailed cost information would assist in identifying the source of margin problems. The share price movement should be compared to the change in the market as a whole to identify if the fall in price is due to problems unique to RMB or if this is due to general economic conditions.

- 1 (a) 1 mark for general definition of a CSF. 2 marks each for a description of monitoring and building CSFs with examples appropriate to the scenario. Maximum of 4.
- (b) 3 marks for the sources of information. 2 marks for each example including demonstration of why it is appropriate for FP. Maximum of 6.
- (c) 1 mark for general point about importance and criteria for a KPI. 3 marks for each suggested performance indicator with 1 for identification and 2 for discussion of use and relevance to FP. Maximum of 10. (Candidates may also discuss different margin measures such as operating and gross profit but these must be related to actual operations in order to gain much credit.)
- (d) 1 mark per point made. Candidates can divide their answer into sections on each information system or on each of their four chosen KPIs. Maximum of 9.

Professional marks for the style and structure of the discussion in the answer 2 marks.

Total 31 marks

- 2 (a) General discussion of the two methods – 1 mark per point up to 4 marks.
Discussion of illustrative calculations – 1 mark per point up to 3 marks.
Further action to undertake – up to 2 marks
Conclusion on system of costing – 1 mark
Maximum of 8 marks
- Workings
Absorption cost
Cost per unit – 1 mark
Price per unit – 1 mark
ABC cost
Driver rates – 1 per driver rate up to 4 marks
Cost per unit – 2 marks
Price per unit – 1 mark
Difference between prices – 1 mark
- Ignore minor rounding differences provided the candidate has used a reasonable level of detail.
Maximum of 9 marks for workings
Maximum of 15 marks for part (a)
- (b) Status of budgets – 1 mark
Operation of beyond budgeting – up to 4 marks
Appropriateness of beyond budgeting for RL – 1 mark per point up to 6 marks
Maximum 10 marks

Professional marks (format, style and structure of report) are available up to a maximum of 4.

Total 29 marks

- 3 (a) Up to 3 marks on the explanation of VBM and then up to 3 marks on how it aids focus in the management process (Maximum 4)
- (b) Workings:
- | | |
|------------------|---------------------------------|
| NOPAT | 1 |
| Capital employed | 1 |
| Cost of capital | 1 |
| EVA™ | 1 |
| Assumptions | 0.5 each up to a maximum of 1.5 |
| EPS | 1 |
| Share price | 3 x 0.5 |
- Comments: 1 mark per reasonable point up to 3 on EPS and share price and 3 on EVA™.
Total 12
- (c) 1 mark for each point made up to a maximum of 4.

Total 20 marks

- 4 (a) 1 mark per factor identified as relevant for each section of the broad sections of the analysis (PEST or PESTEL sections are appropriate and competition could be an additional area considered). Up to 1 mark for each performance indicator relevant to the factors identified. Maximum of 8.
- (b) Up to 4 marks for analysis of basic data, commenting on overall picture and achievement of target
1 mark for calculating overall change
Up to 2 marks for simplifying data into broad categories and commenting
Up to 5 marks for analysis of mix of methods of travel and commenting
(Another acceptable categorisation could be related to fuel type: petrol, diesel and aviation – rail is problematic as it is a mix of diesel and electricity but reasonable assumptions will be acceptable)
Maximum of 9 marks.
- (c) 1 mark per point reasonably made up to 3 marks.

Total 20 marks

- 5 (a) 1 mark for each point made. Up to 4 for each type of model. Maximum of 6 marks.
- (b) 1 mark for each point made. Maximum of 5 marks.
- (c) 0.5 mark for identifying problem and up to 1 mark for explaining how this relates to corporate failure. Maximum of 5 marks.
- (d) 1 mark for each point explained. To score full marks some appreciation of the information not captured by parts (b) and (c) must be demonstrated. Maximum of 4 marks.

Total 20 marks