MARK PLAN AND EXAMINER'S COMMENTARY

The marking plan set out below was that used to mark this question. Markers were encouraged to use discretion and to award partial marks where a point was either not explained fully or made by implication. More marks were available than could be awarded for each requirement. This allowed credit to be given for a variety of valid points which were made by candidates.

Question 1 – Reyel plc

General comments

This is the mini case worth 42 marks and also the main data analysis question.

The scenario is based on an international company, Reyel, which owns and operates mid-market hotels. A new division, 'The Extended Stay Hotel Division' (the ESH), was set up to enter the extended stay hotel market. The initial strategy, to test the market, was to establish one hotel, The Clarre, in London. Quarterly management accounts are produced to measure performance, where seasonality is an issue. The performance of The Clarre is also benchmarked against one of Reyel's traditional hotels in London, The Zoy.

Two issues that have arisen with respect to the management of The Clarre are: managing capacity and pricing.

An ethical issue has arisen whereby the manager of The Clarre has offered regular business customers discount vouchers for private holidays if they agree to a premium over the standard price for a guestroom, at their employer's expense.

Candidates were required to:

- Analyse the performance of The Clarre for each of the four quarters to 31 March 2015, briefly identifying any additional information needed.
- Compare the performance of The Clarre and The Zoy.
- Explain the factors that the manager of The Clarre should consider in respect of managing capacity and pricing.
- Explain how The Reyel management could estimate the loss in revenue of The Zoy arising from the opening of The Clarre.
- Discuss the ethical issues arising from the inducements given to individual business customers and advise on the actions that Reyel should take.

(a) (i) Quarterly data analysis: The Clarre

	The Clarre Quarter to 30 June 2014	Quarter to 30 September 2014	Quarter to 31 December 2014	Quarter to 31 March 2015	Year ending 31 March 2015	The Zoy Year ending 31 March 2015
Capacity (nights)	21,600	21,600	21,600	21,600	86,400	108,000
Number of nights actually occupied	15,552	17,280	16,848	15,120	64,800	62,640
Operating profit % (based on guestroom revenue)	18.3%	28.1%	28.1%	16.6%	23.3%	*21.7%
% of annual revenue	22.8%	27.5%	27.5%	22.1%	100%	-

% of annual nights	24.0%	26.7%	26.0%	23.3%	100%	-
% of annual operating profit	17.9%	33.1%	33.2%	15.8%	100%	-

* 18.2% If based on total revenue

Revenue

The Clarre was a new start-up on 1 April 2014, which is the beginning of the current financial year. As such, it is likely to take some time to establish a customer base and grow, particularly as this is a new type of hotel for the Reyel group. The first year of operations is therefore probably atypical and there is likely to be growth in future years. Similarly, there is likely to be growth between quarters as the hotel becomes established during the year. Some of the underlying quarterly variation may therefore be due to early growth, rather than just seasonal variation.

Revenue in each of the two quarters ending 30 September 2014 and 31 December 2014 (Q2 and Q3) was greater than in each of the other two quarters (Q1 and Q4). In terms of revenue generated 55% of annual revenue occurred in Q2 and Q3, being equally split between these two quarters.

It terms of volumes (ie number of guest nights) the seasonal variation is less pronounced with only 52.7% of guest nights occurring in Q2 and Q3 (being 26.7% and 26% respectively). This variation however understates the variability in seasonal demand as the lowest occupancy rates in Q1 and Q4 were incurred despite the lowest average prices of £68 per night, compared with averages of £74 and £76 per night respectively for Q2 and Q3. Had the same prices been charged throughout the year then a much more pronounced seasonal variation is likely to have occurred.

In summary, the highest demand occurred in Q2 and Q3 despite these quarters having the higher average prices. Whilst Q1 may have been disadvantaged as the start-up quarter, the same cannot be said for Q4 which had longer to establish a customer base than Q2 and Q3.

Additional information, which would be an indicator of the Q1 start-up effect, can be found by comparing revenue for Q1 with the quarter ended 30 June 2015, which is near completion.

Additional useful information would be:

- Seasonal variation of any other extended stay hotels in the London area to use as a benchmark to strip out industry average seasonality in the geographical area (though this information may be difficult to obtain)
- Variations in prices and occupancy within each quarter.

Operating profit

The quarterly operating profit margins for Q2 and Q3 (28.1% for each) show that they are much more profitable than Q1 and Q4 which had margins of only 18.3% and 16.6% respectively.

A similar picture can be seen from analysing the percentage of total operating profit for the year earned in each quarter. Almost two thirds (66.3%) of total operating profit for the year was earned in Q2 and Q3, being 33.1% and 33.2% respectively. This trend is far more pronounced than that for revenue, discussed above, which amounted to only 55% in Q2 and Q3.

There are number of causal factors which are likely to have given rise to this:

- The average price per night is higher in Q2 and Q3 so the margins are higher.
- There will be a large element of fixed operating costs in running a hotel. These will have an operating gearing effect, such that variations in revenue are magnified in operating profit as the fixed costs must still be covered when revenue falls. This means the lower demand in Q1 and Q4 gives rise to a disproportionate decrease in operating profit.
- The average length of a stay is greater in Q2 and Q3 (at 15 and 18 nights respectively, against 14 and 13 nights in Q1 and Q4), so the costs of room change-overs are reduced.

(a) (ii) Comparison of The Clarre and The Zoy

Difficulties in making valid comparisons should be recognised. These include:

- A different business model, although both are in the same industry
- The Clarre is a start-up whereas The Zoy is well established

Despite this, the two hotels are operating in the mid-market hotel sector, are of similar size and are in similar locations. Reasonable comparisons are therefore possible.

A key distinction is that The Zoy has two sources of revenue: room revenues and other revenues (from the restaurant and bar). The operating costs provided are not divided between these two revenue streams and this would be useful additional information in identifying the source of the performance. The interdependence of revenues and costs between these two revenue streams would however need to be recognised, even if this cost analysis information were to be available.

<u>Guestroom revenues</u>

Guestroom revenues generated by The Zoy are 34.9% higher than those of The Clarre. In analysing the underlying causes of why the revenue is greater there are three key factors:

- Capacity (number of room nights available)
- Occupancy
- Price

It can be seen from the above table that the number of nights occupancy (ie volume) is similar for the two hotels, with The Clarre and The Zoy being 64,800 and 62,640 respectively for the year ended 31 March 2015. These figures are determined as a function of capacity and occupancy.

Despite the volume of room nights being similar, this is achieved in a different way with The Zoy having a much higher capacity (108,000 room nights compared to 86,400), but a lower occupancy (58% compared to 75%).

Given the similar volumes sold (ie the number of room nights) the fact that The Zoy has revenue that is 34.9% higher than The Clarre is caused by an average price of £100 for The Zoy per night, compared with £71.70 per night for The Clarre (ie 39.5% higher).

Data could meaningfully be calculated based on revenue per guest if comparing two traditional hotels or two extended stay hotels. However, given that the relative business models create very different average stays, such a comparison would be almost meaningless in comparing The Clarre with The Zoy as it would not compare like with like.

Other revenue

'Other revenue' for The Zoy is £1.2 million, which is 16.1% of the total revenue of £7.464 million for The Zoy. This is therefore reasonably substantial and makes the total revenue for The Zoy 60.7% higher than that of The Clarre. (However, the operating costs of the restaurant and bar are not separately provided so it is difficult to draw conclusions about the profitability of The Zoy restaurant.)

Operating costs

Additional information is needed analysing operating costs into the component accounts. Overall, however, The Zoy has operating costs which are 71.5% higher than those of The Clarre. The underlying causes of this are likely to be:

- Costs of the restaurant and bar
- Greater levels of service (eg daily cleaning)
- More frequent change-overs (as average stay is 3 days rather than 15 days for The Zoy)

Note however that the volume of room nights actually used is similar for both hotels.

Further information indicating the breakdown of fixed and variable costs may be useful to determine how costs relate to volumes and how operating costs are likely to change in future.

Operating profit

As already noted, The Zoy has revenue 60.7% higher than The Clarre, but operating costs 71.5% higher. Despite this, in absolute terms, The Zoy has made more profit than The Clarre in the year ended 31 March 2015, as revenue is greater than operating costs. Indeed, the operating profit of The Zoy is 25.3% higher than The Clarre.

Conclusion

The Zoy has outperformed The Clarre but this is not unexpected given this is the latter's first year of trading. Greater sales in future, as The Clarre generates a more established customer base, seem likely to close the gap and perhaps permit the performance of The Clarre to exceed that of The Zoy.

Examiner's comments

Requirement (a)(i)
Candidates' answers were generally reasonably good on this requirement. For most candidates, there was an improvement over previous sittings on the presentation of the data analysis by using an initial table of calculations, followed by a qualitative analysis of the results.

The majority recognised the seasonality evident in the data. Many also identified the need for a breakdown of costs into fixed and variable after recognising that there had been a more than proportional increase in operating profit relative to the increases in revenue.

The better scoring scripts analysed occupancy rates per quarter and the overall impact of occupancy on profitability. The discussion part of the question was done quite well with candidates linking seasonality, location and hotel type back to the scenario. However, only a small number identified that the data presented was from a start-up business and could be subject to major variations in the future.

Weaker candidates merely copied data from the question, often without calculating any new ratios. Where new ratios were calculated, weaker candidates tended to provide only very general ratios such as operating profit margins, without considering any indicators of performance specific to the scenario. In their narrative, weaker candidates tended to merely describe what had happened, rather than providing an analysis determining causal factors and explaining how and why a movement in the data had occurred.

Requirement (a)(ii)
Calculations were mostly limited to percentage changes and basic margins. In terms of analysis, only the strong candidates highlighted the difficulties in making comparisons due to the differences in the business models of the two hotels and the fact that the Clarre was a start-up. While trying to make similar comparisons, candidates wanted to “strip out” the restaurant but, in doing so, often deducted the revenue while not recognising some of the operating costs would be attributable to the restaurant. Conclusions were not always offered.

Maximum full marks	18

(b)

Capacity planning
Capacity planning is the process of determining the capacity needed by an organisation to satisfy changing demands for its products or services.

Effective capacity in the hotel industry is the maximum number of guests that a hotel is capable of accommodating in a given period, due to constraints such as physical resources (guestroom capacity), human resources, quality threshold issues (guestrooms in good repair and cleaned) and delays (room turnaround).

A difference between the capacity of a hotel and the demand from its guests results either in under-utilised resources (eg available guestrooms unoccupied) or unsatisfied demand (guests turned away when the hotel is full). The goal of capacity planning is to manage this difference.

Capacity can be increased through introducing new techniques, processes or assets, or varying the number of employee hours.

Capacity management in the hotel industry can be short-term or long-term. Within each of these time frames, capacity management can also be viewed from the supply side or the demand side.

<u>Long-term capacity management</u>

Supply side
In the context of a hotel, the number of guestrooms sets an upper limit on physical capacity in the medium to long term. Whilst it may be possible, from the company perspective, to build new extended stay hotels, from the perspective of the manager of The Clarre, an extension of physical capacity is difficult as there are limitations of building in a city such as London. Possibilities in the longer term to raise physical capacity might be to: change common areas into more guestrooms; build additional floors; reconfigure the guestrooms to make them smaller, but more plentiful; use an overflow venue.

It would be a mistake however to consider capacity solely in terms of either (i) physical capacity or (ii) only increasing capacity.

Capacity could have a number of aspects. For example, the need may be to reduce capacity in order to reduce costs, rather than increase capacity. The average utilisation of The Clarre is 75%. Maintaining the ability to service 100% occupancy, if long-term demand remains at 75% occupancy, would be an inefficient use of resources and would involve the provision of expensive and unutilised capacity.

Demand side
Demand management might involve increasing demand in order to utilise surplus capacity. This might include, in terms of long-term demand management: improving facilities to attract more people to stay at the hotel (eg business centre, bar); improve guestroom quality; recruit more staff; reduce standard prices.

<u>Short-term capacity management</u>

Supply side
Flexibility in short-term capacity is needed as hotel bookings may vary unpredictably, so the need to match variations in demand with variations in capacity reduces underutilised resources or lost sales.

Labour is a key aspect of planning short-term capacity. For example, flexible contracts (eg staff might be required to work overtime or shifts at short notice) to meet changes in demand from bookings will enable resources to be acquired quickly to match demand changes in the short term.

Short-term closure of a section of rooms, or a floor, may reduce short-term capacity (eg from the data provided, demand is seasonal for The Clarre). This would save costs such as heating a floor.

Demand side
The use of IT and marketing models to predict variations in demand will help give management more time to manage capacity.

Demand management capacity planning may be used to reduce peak demand by switching it to the off-peak periods, such as by offering relatively lower off-peak prices. This is a form of price discrimination which is discussed below. The utilisation of the advertising budget may also be applied disproportionately to attract demand in the low season.

Pricing

Flexible prices, taking the form of price discrimination, can include charging customers different amounts to reflect their individual price elasticities. To be able to do this, there needs to be separation of markets.

Examples of effective separation of markets can include businesses which make a large number of bookings compared to individuals who may only make a single booking. The individual cannot access the business price as he/she does not normally require as many hotel stays as a business.

The objective of the pricing strategy needs to be clear. Setting prices to maximise utilisation is not necessarily a good idea if revenues can be maximised by a higher price with less than 100% utilisation.

Even revenue maximisation may not be appropriate as it may not equate to profit maximisation.

The data in the exhibit shows that demand varies between quarters, but will also vary within quarters (eg if a major event is on in London, higher prices can be charged and yet there may still be full utilisation). These demand peaks can generate higher prices in order to reduce demand (in terms of guest nights) to the capacity level of the hotel.

Conclusion

Where there is a strict physical limit on the number of guestrooms (at least in the short term) then pricing can be one of the most effective means of capacity planning. If capacity management is aligning capacity and demand then, where capacity is upwardly inflexible, pricing is the primary means in the short term of adjusting effective demand to match available capacity.

Examiner's comments

Most candidates only considered the short term when discussing capacity management. However a range of interesting suggestions were provided. Good quality candidates tried to link capacity management and pricing policy. Few candidates distinguished supply-side and demand-side aspects of capacity management.

The treatment of pricing was variable in quality. A high proportion of candidates used the 4Cs approach to structure their answers. Many candidates recognised that varying prices could be charged due to the seasonality of the business, but many failed to recognise key issues such as price discrimination or price elasticity.

Some candidates conflated the issues of capacity management and pricing within a single narrative, which usually limited the clarity and scope of their answers.

Maximum full marks	10

(c)

The impact of opening The Clarre on the revenues of The Zoy is the difference between the following two figures:

(1) The revenues actually generated by The Zoy

(2) The revenues that would have been generated by The Zoy had The Clarre not been opened (the counter factual).

Whilst figure (1) is known, figure (2) needs to be estimated.

The starting point is that if The Clarre had not been opened it may have been the case that The Zoy's revenues may have changed over the past year anyway, due to other factors. These other factors need to be evaluated in order to make an assessment of the figure in (2) above.

Macro and industry factors

In estimating the change in The Zoy's revenue from last year, industry trends and macroeconomic trends need to be considered, particularly in the context of the London market. Thus, if London hotels generally suffered a fall in revenues compared to last year, then this factor could be stripped out of last year's The Zoy revenue in estimating (2) above.

Internal changes

Any changes that Zoy management has made this year compared to last year need to be considered. Price changes may have had an effect on demand, as may other factors including staffing, refurbishment (or lack of it), customer service policy and advertising. These factors need to be stripped out in estimating (2) above.

Data analysis

An analysis of data might reveal more information.

For instance, if there has been a sharp fall in the number of long stays at The Zoy (of over 8 days) then this seems more likely to have been caused by the opening of The Clarre than if there had been a fall in the number of short stays, which are not the same market sector as The Clarre.

If there is a Reyel loyalty card, or company credit card, then specific evidence could be gathered on individual customers who stayed at The Zoy last year but transferred over to The Clarre this year.

Examiner's comments

The answers to this requirement were the weakest on the entire paper, and formed the highest rate of non-attempts. Many candidates failed to grasp the key issue of what would have happened to the revenue of The Zoy if The Clarre had not opened. Weaker candidates, implicitly or explicitly, assumed it would have remained at the level of the previous year.

Many candidates did not give due consideration to external factors, in addition to the internal ones, relevant to the possible impact on The Zoy arising from opening The Clarre. Few focussed on what had happened specifically to the longer stay customers of the Zoy.

Maximum full marks	7

(d)

Ethics pertains to whether a particular behaviour is deemed acceptable in the context under consideration. In short it is 'doing the right thing'.

In making any ethical evaluation it is first necessary to establish the facts. In this case, the claims made against Kevin need to be established to assess their validity. This may include establishing the use of vouchers by The Clarre customers and tracing these back to the prices they have paid for staying at The Clarre.

The issue of legality applies; where an inducement has been given then this may come under the Bribery Act. It may also be fraud. Legal advice should be taken.

The offering of vouchers may not, of itself, be unethical and may be common practice in the industry. However, two other factors to consider are:

- the value of the vouchers and whether they are sufficiently significant to amount to a material inducement; and
- the fact that vouchers are not being offered for booking a guestroom on normal commercial terms but, rather, for individual business guests agreeing that their employers should pay in excess of the standard price set for other guests, with no clear commercial cause or benefit to the employer. There is a clear and possibly substantial benefit to the employee as an individual.

In making a decision as to how to act, it may be helpful to apply the Institute of Business Ethics three tests:

- Transparency
- Effect
- Fairness

Transparency - would the Reyel board mind people (existing customers, suppliers, employees) knowing what has happened? In particular, the issue of transparency will apply to the employers who have paid inflated amounts. This is likely to have consequences in refunding money to employers.

Effect – whom does the decision to provide inducements affect/hurt? Clearly this includes the employers who have paid more than the market rate. Other rival hotels, who were offering lower prices to employers but without additional inducements, may also have suffered.

Fairness – would the inducement be considered fair by those affected? The issue for Reyel's board is that the company may have benefited from the action of the manager, even though the board did not itself instigate the particular actions nor was even aware of them at the time.

Honesty – A final issue is one of honesty. The inducements fail the honesty test on the basis of Rexel making an improper gain. There is now the onus to make other parties (eg employers) aware and return the excess amounts received.

<u>Response</u>

Where there is appropriate evidence an initial action would be to inform the employers and return any excess amounts charged. The manager's continued employment should be reviewed. The operation of the discount voucher scheme company-wide should also be reviewed

If there is suspicion there has been a crime then disclosure to the police, based on legal advice, may be appropriate.

Examiner's comments

On the whole, this requirement was reasonably well answered. Most candidates considered the legality issue, although many then immediately dismissed it as not relevant in this case.

Many candidates adopted the transparency, effect, fairness framework. Only better students went on to identify other ethical issues outside this framework. Actions to be taken by management were often ignored. Frustratingly, this included some students who produced excellent commentary on the ethical issues, but then failed to identify any subsequent actions.

Maximum full marks	7

Question 2 – Home of Leather plc

General comments

HoL is a company which manufactures good quality leather furniture. The company is located in Puddington, where its site comprises a factory, distribution centre and office.

In order to remain competitive, HoL needs to reduce costs by making fundamental changes to its business. Three potential strategies have been identified: relocate within the UK; relocate manufacturing overseas; or cease manufacturing then import as a wholesaler. All strategies would involve redundancies to varying degrees.

The board has set a target annual profit of £7.2 million, but prices and costs vary between the three strategies. Data on costs and revenues are provided.

Candidates were required to:

(a) Calculate for each of the three proposed strategies: (i) the break-even selling price; (ii) the volume of sales which would achieve an annual profit of £7.2 million.
(b) Evaluate each of the three proposed strategies.
(c) For Strategy 1, explain power-interest using Mendelow's matrix for existing employees and for Grint.
(d) Identify and compare the change management issues for Strategies 1 and 2.

(a)

To: Home of Leather plc Board
From: A Business Advisor
Date: 10 June 2015
Subject: Proposed reorganisation strategies

Break-even price

Strategy 1

B/E contribution = £14.4m/120,000 = £120

B/E price = £200 + £120 = £320

Strategy 2

B/E contribution = £10.8m/120,000 = £90

B/E price = £160 + £90 = £250

Strategy 3

B/E contribution = £1.8m/120,000 = £15

B/E price = £280 + £15 = £295

Sales volume to achieve a profit of £7.2m

Strategy 1

(£14.4m + £7.2m)/(360-200) = 135,000 units

Strategy 2

(£10.8m + £7.2m)/(324-160) = 109,756 units

Strategy 3

(£1.8m + £7.2m)/(324-280) = 204,545 units

Examiner's comments
The performance on this requirement was generally good, although it did tend to polarise between the many candidates who managed to arrive at the correct calculations, thereby scoring full marks, and the minority who scored nominal marks. Weaker candidates often provided break-even sales volumes, rather than the volumes necessary to achieve an annual profit of £7.2 million. Others determined break-even volumes, instead of break-even prices.

Many candidates failed to achieve the mark available for presenting their answer to this question in report format.

Maximum full marks	9

(b)

	Strategy 1 £'000	**Strategy 2** £'000	**Strategy 3** £'000
Sales	43,200	38,880	38,880
Variable cost	(24,000)	(19,200)	(33,600)
Annual fixed costs	(14,400)	(10,800)	(1,800)
Profit	**4,800**	**8,880**	**3,480**

Strategy 1
While this strategy involves some downsizing, it is the least transformational change and therefore has fewer transition costs. Nevertheless, there would be a loss of 60% of the employees who have skills which may be difficult to replicate with a new workforce.

In terms of ongoing production, the product quality is maintained and therefore the risk of alienating existing customers in the hope of attracting new customers through a lower price-quality mix is avoided.

In terms of the data offered Strategy 1 is not as profitable as Strategy 2 (see above), but more profitable than Strategy 3.

There is however less risk with Strategy 1 than the other two strategies in a number of respects:

- There is currency matching between the currency of 70% of sales and the currency in which costs are incurred. There is therefore less risk from currency fluctuations.
- As the proposal is based on existing production there is more certainty surrounding estimates
- There is no change in market positioning

This strategy however has greater risk than the other two in having more fixed costs and therefore higher operating gearing. As an example, if the Grint contract is lost then the high fixed costs still need to be incurred and a large loss will be made.

Also, in respect of the Grint contract, the break-even price of £320 is only £40 less than the price indicated by the Grint board as a maximum, making profits only marginal on this contract.

Strategy 2

Based on the data provided, this is the most profitable contract, with an estimated annual profit of £8.88 million.

There are, however, a number of operating and financial factors which increase risk and mitigate against the higher return.

In the first instance, this strategy is likely to be the greatest transformational change and therefore have the highest initial costs from change. It is unclear whether these initial costs have been annualised into the fixed costs in the table or whether they have been treated separately.

The supply chain is lengthened significantly which may cause operational uncertainty in meeting customer delivery needs.

The break-even price at £250 is £70 lower than the break-even price for Strategy 1 at £320. However, the quality of the output is better with Strategy 1, making any given price easier to achieve. Nevertheless, if the quality differential in relation to price is correct, then Strategy 2 remains more competitive than Strategy 1 in price-quality terms.

That said, the market positioning in Strategy 2 is different from the existing market positioning and there is a risk that it may take time to adjust to a new customer base which prefers a lower price-quality mix.

Looking at the break-even data in (a) above there appears to be a greater margin of safety for Strategy 2 than the other two strategies. This indicates lower risk in terms of variation of price and demand.

Strategy 3

On the basis of the data presented, Strategy 3 looks to be the least favourable option as it has the lowest expected profit and the least favourable margins of safety in terms of price and volumes demanded.

The issues of price-quality mix and currency risk are the same as for Strategy 2.

The key area where outsourcing in Strategy 3 has an advantage however is that it has the lowest fixed costs and therefore the lowest operating gearing. If the Grint contract were to be lost then high fixed costs would not need to continue to be incurred. There is more financial agility with Strategy 3, even though the expected return is lower. There is therefore downside protection. Exit costs are also likely to be lower as there is only a supply contract to exit and a warehouse to sell, rather than an entire factory.

Conclusion

For the renewal of the Grint contract, it would seem that Strategy 2 and Strategy 3 offer the potential to make a more competitive bid on price than Strategy 1. However much will depend on how significant quality is to Grint in the tender process.

Examiner's comments

Generally, there was a good performance by most candidates. Not all made use of financial data in their commentary. Others made good use of the data, for example determining profits and margins of safety, but then provided limited narrative (eg on supply chain issues). Some candidates drifted into a discussion of change management, despite being explicitly told they were not to do so. Those who used the suitability/acceptability/feasibility framework often wrote too much, yet missed key points, and were not normally helped by structuring their answers in this way. Most candidates provided a reasoned conclusion as to which strategy appeared best.

Maximum full marks	10

(c)

Strategy 1

Current employees

Power - Low
Interest - High negative

The current employees have high negative interest as they are under immediate threat of losing their jobs. The power of current employees to stop or moderate any relocation decision is limited. If the entire UK workforce is united against the move then significant costs to HoL can arise from disruption.

Given however that not all jobs are under threat, there may be limited co-operation in industrial action from the 40% of employees who are willing to relocate 150 kilometres away. This may be particularly the case if HoL pays generous removal expenses to relocate employees.

Even amongst the employees losing their jobs some may be happy with redundancy as they intend to retire or move jobs anyway.

Despite the above, it is likely that most employees have a strong negative interest in the relocation, particularly as the company is a key part of the town and perhaps families and friends are located there, who may suffer from a decline in the local economy following the closure of the factory. This may also make it harder for redundant employees to find new employment locally and therefore reinforce their negative interest.

One final qualification is employees may have a strong negative interest compared to the status quo of the factory in Puddington. If however there is an acceptance of the board's decision of the commercial need to make a change then, in relative terms, compared with the other two strategies, employees could favour Strategy 1 as there are fewer redundancies.

Grint
Power - High
Interest – Moderate

Given that 35% of HoL's sales are from Grint, it has considerable power over HoL and is likely to be in a position to influence the decision to relocate production. The cost savings from transferring production are likely to be a factor in the next tender, but also the level of quality of the products that HoL can provide is dependent on which of the three strategies is selected.

Grint may however be only moderately interested in the relocation as furniture manufacture is a competitive industry, with a range of alternative suppliers being available if HoL fails to deliver the required quality at the required price. Nevertheless, HoL is presumably currently Grint's preferred supplier for good reasons, so there may be a moderate wish to continue the relationship, despite the concerns over price expressed in their communication.

Examiner's comments

This requirement was very well answered by the majority of candidates and was, on average, the best answered requirement on the paper. Relatively comprehensive rationales were usually provided to support the positioning of current employees and Grint on Mendelow's matrix.

Maximum full marks	7

(d) Change management

The change management process needs to be appropriate to the nature of the change.

In this case, the change is fundamental and transformational for either Strategy 1 or Strategy 2.

The transformational and reactive nature of the change classifies it as 'Forced Change' in the sense that the company will be unable to continue to compete if it does not reduce costs by making major changes.

Whilst there are commonalities between the two strategies which may require similar change management procedures, there are also differences which suggest a different change management approach for each strategy.

In terms of managing the impact of change, then there are very different effects for employees staying with the company and those being made redundant.

While there is a major effect on those being made redundant, in the longer term they will not be employees so, while the leaving process needs to be managed, there may be limited long-term effects on motivation if the change is well-managed. For Strategy 2 the change impacts on nearly all employees.

However, in the shorter term, following announcement the employees may not know which of the two groups they will fall into, and thus all employees may be demotivated by the uncertainty in this period. This may have adverse effects on quality of work and reputation.

There is also a danger of focusing only on change with respect to employees. Other stakeholders should also be considered in change management including:

(i) Continuing customers – who need to be reassured that they will continue to be supplied quality goods and that the delivery will continue to be reliable, particularly with Strategy 2 where the supply chain is geographically extended.

(ii) Suppliers – to manage the continuing relationship with Strategy 1 and the issues that may arise from the change in geographical location. With Strategy 2 there is a need to ensure reliability of supply in the closing months when UK suppliers will be aware that contracts are to be terminated.

However, change does not only involve people but also:

(a) Changes in management structure due to the change in the nature of the business (eg automation with Strategy 1) and the location of the business (with Strategy 2).

(b) Change in culture. There is likely to be a change in culture particularly in Strategy 2 where employees will have a different national culture as well as management having the opportunity to work with employees to set up a new corporate culture.

Much more than Strategy 2, Strategy 1 has the change management issue of managing employees who are continuing in employment with HoL, but who may need to adapt to new practices in an automated environment and deal with a new culture.

In this context, for continuing employees, Lewin and Schein's Iceberg model has three stages in managing change:

(i) Unfreeze
(ii) Move
(iii) Refreeze

Unfreezing involves a trigger, a challenge of existing behaviour, involvement of outsiders, alterations to power structures.

Moving means making the changes, and communicating and encouraging adoption of the new situation.

Refreezing means consolidation and reinforcement of the new situation.

While these phases may be appropriate to employees moving or changing roles within the company, the changes to the factory are absolute (ie closure) and thus there is no concept of refreezing a new situation for employees who are leaving.

The model's application is therefore limited in the context of this factory closure, as some employees are lost to the company rather than having to accept a new structure or culture.

The **coercive change** approach is where change is forced without participation. This requires the ability to push through the change without co-operation but it may be appropriate in these circumstances as there is no requirement to maintain the goodwill of most of the factory workforce post changes, as they will no longer be working for HoL.

The **Gemini 4Rs** model of reframing, restructuring, revitalising and renewal is, like the Lewin model, largely based on the needs, not just of getting rid of the old structure, but also of reformulating the new structure. In the case of factory closure and for Strategy 2, the latter part of the model is largely redundant as there is little scope for renewal for employees who are leaving.

There are likely to be barriers to change, particularly from employees, which need to be managed as part of the change management process.

(i) Cultural barriers

Strategy 1 is more difficult to manage as it involves maintaining elements of the existing culture/structure/ workforce despite closing the factory. In contrast, with Strategy 2 is more about managing closure and a new start up than managing a continuing process.

Strategy 1 puts forward fundamental changes that will affect the culture of the organisation. Power structures within the company may be threatened by the redistribution of decision-making authority or resources, or the changing of lines of communication.

For example, this will affect management and thus management may be reluctant to implement changes which will be contrary to their own interests.

(ii) Stakeholder groups

Group inertia may block change where the changes are inconsistent with the norms of teams and departments, or where they threaten their interests.

Examples might include:

- Strikes and other forms of resistance to change implementation by staff who are to be made redundant
- UK raw material suppliers taking legal action for contract termination if the business is now to be switched to overseas suppliers under Strategy 2
- Shareholders selling shares as a result of the changes.

(iii) Individuals

There are also barriers which affect individuals and result in them seeing the change as a threat to earnings and job security.

Conclusion
The transfer overseas in Strategy 2 is operationally more difficult as it involves setting up in a new country and almost starting the manufacturing process again. However, managing employees who are to move from the old factory to the new factory in Strategy 1 also presents challenges and a greater opportunity for resistance to change from those involved in that change. Each will require elements of common change management and differences in change management.

Examiner's comments

Requirement (d)
Answers were variable in quality. Weaker candidates' answers were unstructured and often did not refer to models at all, but merely discussed common sense issues such as uncertainty, redundancy and a lack of buy-in by the employees.

For those candidates that did use change management models, such as Lewin's iceberg model, answers were mixed. Where models were used, the weaker candidates did not apply the model to the scenario, while stronger candidates tended to analyse each strategy separately and conclude how best to manage change in each case.

Maximum full marks	8

Question 3 – Zuccini plc

General comments

Zuccini plc (Zuccini) is a niche manufacturer of motorbikes which is small in the context of the industry. It has an R&D centre in Italy and two factories, one in Italy and one in the UK. Product life cycles are a key feature of the industry and, as Zuccini is having liquidity issues, the product portfolio needs to be considered using models such as the product life cycle and the BCG matrix.

One of Zuccini's motorbikes, the Typhoon4, is nearing the end of its product life cycle and consideration is being given either: (i) to replacing the Typhoon4 with a completely new model, the Typhoon5; or (ii) to modifying the Typhoon4 to produce a slightly updated version, the Typhoon4A, to extend the existing life cycle.

Another motorbike, 'the Hurricane', is currently in its R&D phase, but technical difficulties have caused delays and some uncertainties. Consideration is being given whether to: (i) launch 'the Hurricane' next year as a low-price, basic model; or (ii) delay the launch and continue R&D for three years, then launch as a higher price, mid-market product.

Candidates were required to:

(a) Provide reasoned advice to the Zuccini board to help it decide:

- when production of the Typhoon4 should be ended; and
- whether to replace the Typhoon4 with the new Typhoon5, or to modify it, initially, as the Typhoon4A.

(b) Explain the strategic, operational and financial factors which would determine whether the Hurricane should be launched:

(i) in June 2016 as a basic product; or
(ii) in June 2018 as a mid-market product.

(a)

The product life cycle (PLC) describes the phases of development that a product goes through. The key stages of the life cycle are:

- **Introduction** – a new product or service is made available for purchase and organisations attempt to develop buyer interest.
- **Growth** – a period of rapid expansion of demand or activity as the product finds a market and the product demonstrates its potential.
- **Maturity** – a relatively stable period of time where there is little change in sales volumes year to year but competition between firms intensifies as growth slows down.
- **Decline** – a falling off in sales levels as the product becomes less competitive in the face of competition from newer products.

The PLC can be viewed in conjunction with the BCG Matrix in determining the impact on the company's cash flow from a portfolio of products at various stages in their life cycles. The BCG Matrix portfolio analysis is useful because it provides a framework to consider and forecast potential market growth and to evaluate the competitive dimension through an evaluation of market share. (Note: as Zuccini is a niche player then, in one sense, all of its products have a small market share in relation to the largest companies in motorbike industry. Zuccini's relative market share therefore needs to be considered in comparison to the other niche players.)

The Typhoon4 appears to be in its decline phase with sales falling, and may be viewed as a 'Dog' product (or perhaps a Dodo) within the BCG Matrix with low market share, low or negative growth, and modest or negative cash flow.

The StormRaider appears to be in the growth phase with replacement not due until 2019. It may therefore be viewed as a 'Star' within the BCG Matrix.

The Hurricane is in its R&D phase. It will not enter its introduction phase until either 2016 or 2018 (see below). It may therefore be viewed as an infant in the BCG Matrix with negative cash flow.

Overall, the benefit of the BCG Matrix is to view Zuccini's portfolio of products as impacting cash flows and liquidity in different ways at different points in their life cycles. Thus, for example, established or growth products are financing the development of new products.

When to end Typhoon4 production

In deciding on the timing of change for the Typhoon4 it is necessary to consider it in the context of the wider company product portfolio.

Whilst Typhoon4 sales are declining, the product is not necessarily unprofitable. As it is made in a separate factory in Italy, most of the costs associated with the Typhoon4 should be readily identifiable in order to make an assessment of product profitability.

In order to determine how long the production of the Typhoon4 should be allowed to continue in its decline phase, the following factors should be considered:

- How much inventory of the Typhoon4 exists (ie how many months' sales). If inventory is significant, then production will need to cease some time prior to sales ceasing.
- Evaluate the exit barriers to determine the optimum time to cease production (eg at the end of a lease agreement on machinery specific to the manufacture of the Typhoon4 or at the end of the useful life of machinery for making the Typhoon4).
- Potential response of competitors to any change.
- Need for new updates (eg a change in regulations on emissions with which the Typhoon4 does not comply, but with which the Typhoon4A and Typhoon5 do comply)
- Availability of cash to replace or modify. Even though its sales are declining, the Typhoon4 may still be cash generative. In contrast, the introduction of the Typhoon4A or the Typhoon5 would be likely initially to consume cash at a time it may be needed on R&D projects, eg for the Hurricane (see below).

Whether to produce the Typhoon4A or the Typhoon5

At this stage, there is insufficient information to make a firm decision as to whether the Typhoon4 should be replaced or modified. There are however a number of indicative factors which can be considered.

In terms of the product life cycle (PLC) replacing the Typhoon4 with the Typhoon4A will provide an extra two years of product life, effectively pushing it back into the maturity phase, and extending its life before the replacement of the Typhoon4A is needed with the Typhoon5 in 2017.

Replacing the Typhoon4 with the Typhoon5 on the other hand will, in PLC terms, in effect commence a new introduction phase with a much longer extended life cycle.

One of the problems of replacing the Typhoon4 with the Typhoon4A is that it is a two-stage process, as the Typhoon4A will then need to be replaced with the Typhoon5 two years later.

This raises two key questions:

- Will the transition costs of converting from the Typhoon4 to the Typhoon5 in one step be significantly different from the transition costs of converting from the Typhoon4 to the Typhoon4A, and then later from the Typhoon4A to the Typhoon5, as a two-step process?

- If the Typhoon5 starts production two years later, will its life cycle finish two years later, or at the same time for both options, irrespective of its introduction date?

The cash needed to replace a product is much greater than the amount needed to modify one, therefore the introduction of the Typhoon5 is likely initially to consume much more cash than the modification to the Typhoon4A. This may be at a time it is needed on R&D projects, eg for the Hurricane (see below).

Turning to marketing aspects, in trying to compete in a difficult external market it is important that Zuccini's product reputation is maintained and improved. This would indicate that the best product should be launched as soon as possible, which would be the Typhoon5. Prolonging the introduction of the Typhoon5 with the Typhoon4A may damage reputation and make future sales of all Zuccini's products more difficult.

Conclusion
Subject to more detailed information becoming available, based on the current information the Typhoon5 should be introduced as soon as possible. This will save a double change of product type and ensure that the best product is available to customers as soon as possible. The life cycles are driven by market conditions and so could well be coterminous for the Typhoon5 under either option. It may be that sales of the Typhoon4 continue to be made from inventory but, in this case, a short period of overlapping life cycles, where the old product price is discounted, is likely to be more acceptable than forcing customers into buying Typhoon4A technology which is not the best that Zuccini can offer.

Examiner's comments
Candidates appeared to be comfortable in the application of the product life cycle and the BCG matrix, identifying that the Typhoon 4 was in decline and could be classified as a dog product. The higher scoring answers also identified capital investment and the resulting liquidity position as key factors in making the decision. Disappointingly, most answers did not discuss the wider product portfolio context that in order to manage a product range, it is a sensible strategy to have a range of products all at different stages of the life cycle. Many candidates did not make sufficient distinction between types 4A and 5.

Maximum full marks	12

(b)

The launch of the Hurricane would introduce an extra model to the product portfolio, making it three in all. It would sit at the bottom end of the Zuccini quality range whether introduced in June 2016 as a basic product, or in June 2018 as a mid-market product.

<u>Strategic factors</u>

The StormRaider is an upmarket motorbike and the Typhoon4 is a mid to upmarket motorbike. The introduction of the Hurricane as a basic motorbike extends the product portfolio down the quality spectrum, which may cause brand confusion and damage reputation for the two other products in the portfolio.

There will be a significant delay of three years (until 2018) before the mid-market version of the Hurricane can be launched. There is significant uncertainty here as competitors are likely to launch new models during this period so the degree of competition by 2018 is difficult to estimate, causing additional uncertainty.

R&D plays a key role in product strategy and a number of strategic models are relevant in this context.

Porter's generic strategies*:* Product innovation could be a source of differentiation. Process innovation may enable differentiation for the £9,000 motorbike or cost leadership for the £6,000 motorbike.

Porter's value chain*:* R&D is included within the support activities of technology development. It can be harnessed in the service of lower costs or improved differentiation for the £6,000 motorbike.

Ansoff matrix*:* R&D supports all four strategic quadrants. Strategies of market penetration and product development are relevant to Zuccini in this context.

Industry and product life cycles*:* The obsolescence of existing products can be accelerated by R&D by other companies and so R&D is required to provide Zuccini with replacements to compete.

Operational factors

There appear to have been uncertainties relating to technical factors in the R&D process. In this sense R&D is key to determining the nature of the product and the way it is positioned in the market. However, the very nature of R&D means that it has uncertainty of operational outcomes. The mid-market product appears to present more difficulties and therefore more delay and more uncertainty. This would favour the earlier launch of the basic product in order to reduce uncertainty.

The R&D process may have unintended externalities. In other words, R&D may discover processes and products which may be of use, not just on the Hurricane, but also on the other two models, even though this was not the original purpose of the R&D.

Financial factors

Given that the company may have liquidity issues over the next few years then this may be a key factor in deciding between the 2016 launch and the 2018 launch.

Comparing the two choices, the 2018 launch is cash negative in the next few years. R&D tends to be expensive and over the next three years the mid-market motorbike R&D project will be consuming cash in its R&D efforts whilst delaying the product launch and therefore the future cash inflows. Even after the 2018 launch, the Hurricane would be in the introductory phase of its PLC and it may take a while before it will be any more than cash neutral.

In contrast the basic model will complete the R&D outflows in 2016 and launch thereafter with the ability to generate cash as it comes out of its introductory phase.

More information is needed to decide which alternative will ultimately generate the greater NPV over its life cycle but if short-term liquidity is an issue this points towards the basic model.

In pure undiscounted cash terms (ie zero discount rate) the cash flows from one unit of each product (in the absence of information on volumes) would be generated as follows:

2016 launch: £6,000 x 7 years = £42,000
2018 launch £9,000 x 6 years = £54,000

Whilst the 2018 mid-market product generates more revenue, there are several financial factors which mitigate against this, in favour of the 2016 launch of the basic product:

- The 2016 launch generates cash flows earlier and so will have a higher present value on average per £1 generated
- Additional R&D costs will be incurred for the 2018 mid-market product
- It seems likely that for the 2018 launch there will be greater operational costs in producing a mid-market product rather than a basic product

Conclusion
More information is needed on costs and volumes. However, based on the information available there seem too much delay and too much uncertainty to favour the 2018 mid-market product. Moreover, in financial terms the 2016 basic product generates more cash earlier. This may support the development of other products.

Rather than damage reputation it may be considered that the 2016 basic product could be launched under a different brand name.

Examiner's comments
This part was attempted reasonably well, with better candidates structuring their discussion using the headings provided in the question of strategic, operational and financial factors. In this part of the answer, most candidates did think about the overall strategy of where to position the product in the market and how a delayed launch would be perceived. The majority also identified the generic strategy issue in launching the low cost model, given the firm's differentiated niche focus. Conclusions were not always offered and, if they were, they were usually not fully explained or justified.

Maximum full marks	12