

# **MANAGEMENT CASE STUDY AUGUST 2016 EXAM ANSWERS**

## **Variant 3**

**The August 2016 Exam can be viewed at**

<https://connect.cimaglobal.com/resources/management-case-study-exam/august-2016-management-case-study-exam---variant-number-3>

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### **SECTION 1**

#### **Requirement 1**

Our criteria should allow for both the impact of short-term factors such as maximising the contribution per unit available from the processors that we can obtain and also the long-term factors such as maintaining good relations with potential repeat customers.

We should start by establishing how many processors we require to complete each contract that we have signed. It would be sensible to allocate processors to contracts that can be completed with the resources in order to satisfy as many customers as possible. We may be able to dismantle some partly-completed clusters and use the reclaimed parts on other contracts.

We should consider the importance of each client to SparkSpace. If the client is likely to place further orders in the foreseeable future or to expand their existing system then we might grant them priority over customers who are unlikely to offer repeat business. The visibility of each project is also an issue, with some clients offering the prospect of prestige through association with them.

The potential time taken to complete and install each contract will also affect our cash flows. If a project can be completed and installed quickly then we will be in a better position to invoice and bring in cash. The temporary loss of business due to the shortage may put our cash flows under some pressure.

The impact on reported profit will also be an issue and so we might consider the profitability of each contract. The contracts that we finish using the remaining processors will probably be the only HPC business that we will complete during the remainder of this financial year. Maximising profit will reassure the shareholders that the business remains viable.

## **Requirement 2**

We have a very weak position with respect to our suppliers because they control the few remaining processors. They may decide to make sales from any remaining inventories conditional on us leaving orders in place and waiving the penalty payment. Our only real option is to ask suppliers to give us priority once manufacturing resumes in return for us waiving the penalty payment.

We need to consider the likely behaviour of the customers in the event that we approach them. If they have been following progress and are aware that we are close to completion then they may use that fact to resist any cancellation or delay. If they know that we might be in a position to complete their order using remaining supplies of processors or parts scavenged from other customers' machines then we will be in a very weak bargaining position.

The possibility of our being replaced is also a consideration. If we won a contract on the basis of some proprietary expertise then the client will be far less likely to take the contract to a competitor. If we can bargain from the perspective that we cannot fulfil the agreement until processors become available, but that we will be the best supplier once they do then the client may be forced to grant us an extension without insisting on the full penalty.

Timing may be a consideration in dealing with clients who might take their business elsewhere. If we delay talking to those clients then we may be able to put off the negotiation until remaining supplies of processors have been used or committed elsewhere. We might be able to negotiate favourable terms if there is no great advantage to replacing SparkSpace, although we could alienate clients if we delay communicating news of any delay.

## **SECTION 2**

### **Requirement 1**

The CIMA Code of Ethics could be used as a starting point. In fact, this points to the conclusion that SparkSpace's directors have behaved ethically.

The most immediate question is whether the directors have acted with professional competence and due care in accepting a situation in which they would rely on a single supplier for a crucial component. In this case, they appear to have done so because there was no other source available that would have enabled them to diversify on sourcing. The only possible mitigation for this risk would have been the abandonment of the HPC market altogether. The fact that the disaster appears to have been caused by an unforeseen set of circumstances suggests that the companies that rely on this factory, including SparkSpace, had no real reason to anticipate such a significant interruption of supply.

There could be some debate about the question of professional competence because SparkSpace should have been aware of the potential threat to supplies and it might have been possible to have mitigated some of the effects. For example, SparkSpace might have bought sufficient processors for each order as soon as the contract was signed with the client. Or it might have structured sales contracts to make a better allowance for the possibility that certain crucial components might be unavailable. The factory would always have been vulnerable even though it was well protected. SparkSpace's board could have had some contingency in place.

The directors have adhered to the question of objectivity because they have focussed on the relevant risks and benefits, despite the potential damage to reputations. The board has clearly decided to rely on this single source, despite the fact that any subsequent disruption was almost certainly going to result in criticism. In the absence of objectivity, they might have indulged in dysfunctional behaviour, such as abandoning HPC to avoid criticism, but they resisted that temptation. The costs of mitigating the risk were, arguably, greater than the slim, "one in a million", probability suggested.

### **Requirement 2**

The key thing about having a task culture is that there is a commitment to achieving objectives. That attitude can encourage teamwork and the breaking down of hierarchies when the need arises. It leads to resources being directed to where they are most needed.

Task cultures lend themselves to entities such as SparkSpace that employ professional people who have different skills and experience. Individuals will be encouraged to participate because any contribution that they make will feel valued. Those with the necessary skills and expertise will be able to apply them without necessarily having to defer to those who are their superiors in terms of the hierarchy.

Changing culture is difficult because a great deal can be embedded and may not be explicitly understood. For example, attitudes and approaches to things could be due to a process of

socialisation that encourages new employees to think in particular ways. For example, it may never really have occurred to management and staff that SparkSpace has quite a high tolerance for risk when faced with the opportunity to generate revenue.

Changing culture will require a strong and coherent message to staff at all levels. There may be resistance because the present culture appears to have worked well. There may also be problems in getting the message across because adherence to previous norms may have occurred at an almost subconscious level.

## SECTION 3

### Requirement 1

The shareholders appear to be concerned by the fact that the directors do not suffer any personal loss when SparkSpace runs into difficulties. For example, the directors' salaries are still paid regardless of the downturn in revenue arising from the loss of business due to the present crisis. Replacing part of the existing salary scheme with options would add a performance-related element to directors' remuneration.

Share options allow the directors to participate in any increase in the share price provided the share's market value exceeds the exercise price. That aligns the interests of the directors with those of the shareholders because the options will expire worthless if the share price does not increase beyond the exercise price. The proposed model requires an increase in the share price of  $W\$0.60/2.20 = 27\%$  over three years. That requires an average increase of roughly 8% per annum.

There could be a risk that the directors will become fixated on the option scheme to the company's detriment. For example, they could resist any attempt to remove them from office because they do not wish to lose the value of any options that will then expire. They may also be keen to manipulate reports because a consistent growth of 8% per annum could be difficult to achieve through good management alone.

The shareholders are concerned that the directors are unconcerned with the risks faced by SparkSpace. That may mean that options will not fully align their interests because the directors will not participate fully in downside risks. The value of the options will fall to zero if the share price is less than or equal to the market price of the shares. Any further decline will cost the directors nothing further.

### Requirement 2

The preparation of the financial statements will be complicated by the need to value the share options themselves. Generally, there are no identical financial instruments that are traded in observable markets and so establishing the value of these financial instruments will require some complex calculations based on estimates. The reported profit figure will, therefore, be open to challenge because of the range of outcomes that may be input in respect of the options.

SparkSpace will also have to determine the likelihood of board members remaining with the company for long enough for their options to vest. That will inject a further set of assumptions and uncertainties associated with determining the expense in the statement of profit or loss. The cost of preparing and auditing the figures may increase because of the need to determine and audit these assumptions and estimates.

In principle, replacing salary with an equivalent value in terms of share options will do nothing to reported earnings. The risks being borne by the directors could, however, lead to the directors negotiating a generous allocation of options that is worth more than the salary being foregone. That would increase costs in the short term if the value attributed to the options at the grant date is significant.

The final matter would be the dilution of EPS. If the directors exercise their options then the number of shares in issue will increase and the directors will be paying for them at a

discounted price. The shareholders will have to factor the impact of the dilutive effect of the options for their earnings per share. While any increase in the share price will be welcomed, it will be shared with the directors under the terms of the scheme.

## **SECTION 4**

### **Impact on share price**

#### **Requirement 1**

It would be difficult to prepare a meaningful analysis because of the interaction between planning and operational issues. For example, the redeployment of resources to keep employees busy making generic blade servers would create further planning variances. Given the ad hoc nature of such plans, the operational variances might not have been particularly important.

The analysis of variances in the manner suggested would have taken up valuable management time, when managers would have been busy in addressing the crisis. Adverse operational variances might have meant very little because of the changing situation and so there would have been very little benefit derived. Managers held responsible for adverse variances might have been demotivated.

Depending on utilisation rates and the availability of materials, many of the variances will reverse as production becomes possible. Clients who have agreed to wait for new systems will take delivery once we have the means to satisfy them. Our focus should really be on future production schedules and cash flows rather than past profitability.

Some of the costs may not readily split between planning and operational. For example, we may have overpaid when we purchased remaining stocks of HPC servers at the beginning of the crisis, even allowing for market conditions. Arguably, we would have to establish how much buyers should have paid in order to make a meaningful calculation of the planning aspect of the variance.

#### **Requirement 2**

The cost of finance is likely to be affected by both the cost of equity and the cost of debt.

The share price is a reflection of the market's expectations of future cash surpluses. The cost of equity is effectively the rate at which the market implicitly calculates the net present value of those future cash payments. If the market perceives a greater risk then the required rate will increase and that will be observable as a fall in the share price.

The cost of equity is entirely a matter for market forces and the directors have very little direct influence over it. The market's expectations may be differ from the board's and may even be perceived as biased or misinformed. Concerns expressed by analysts could push up the cost of equity without any shares changing hands.

The cost of debt is less likely to be sensitive to perceptions of risks. Having said that, SparkSpace is highly geared, with a gearing ratio of  $3,088 / (1,411 + 3,088) = 69\%$ . In that case, the lenders may believe that they are are some risk of losing their principal in the event that SparkSpace is adversely affected by a business risk and so the cost of debt could increase.

On a day to day basis the cost of finance has no immediate impact on the company. Any decrease in share prices or increase interest rates will have an impact on the cost of raising funds in the future, which could constrain expansion. A high cost of finance could also put the board of SparkSpace under some pressure, even the fear of losing their jobs.