

MANAGEMENT CASE STUDY AUGUST 2017 EXAM ANSWERS

Variant 1

The August 2017 exam can be viewed at

<https://connect.cimaglobal.com/resources/august-2017-management-case-study-variant-1>

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SECTION 1

Project appraisal

Firstly, Nilesh's appraisal does indicate that the project will generate a positive net present value, which suggests that it is worth investing. The analysis would be more credible if risk had been taken into account. The project itself is also potentially incorrectly specified. If all of the staff and equipment are to be replaced in Essland then there is very little reason to invest in that country. It may be more cost effective to spend the W\$50m on a new factory in a different country.

The most obvious concern is that the potential savings depend on the outcome of the future prosperity of Essland's economy, which is expressed as a probability distribution. The present value of the expected savings is a little higher than the cost of the investment, but it is not a significant difference. There appears to be at least a 30% probability that the savings will be far smaller than the expected value and that the net present value will be negative.

We have the further concern that the savings arise from making a significant proportion of the workforce redundant. It may prove difficult to achieve such a reduction in staffing. The existing workforce may attempt to protect their jobs. In the short term, they could disrupt production through strike action. They may also refuse to assist in the installation and testing of the new equipment.

The discount rate is also a key consideration. Using the local subsidiary's borrowing rate as a cost of capital is likely to understate the cost of capital. This is a risky investment that is effectively expanding the overall business of Aurora and so it

might be more relevant to use Aurora's WACC. A more relevant cost of capital is likely to increase the overall required rate, which will reduce the present value of the expected savings and perhaps push the net present value into negative.

Political risks

At the local level, Aurora is undoubtedly provoking a negative response from the Essland government. Aurora is unlikely to be the only company that is nervous of increasing wages and so the government will be keen to prevent outside investors from creating unemployment. Aurora faces the risk that it may be difficult to get the necessary permission to import and install the new equipment. The local government may also impose legislation, such as requiring the payment of redundancy, in order to deter employers from leaving.

At the national level, it is unlikely that the Westland government will be particularly interested in Aurora's actions in Essland. There may be some pressure to relocate the investment to Aurora's home country in order to retain more wealth and employment. Aurora could make good use of that by bargaining for tax concessions and other incentives to build the new factory on Westland. Global multinationals have the advantage of being able to relocate their base of operations with relative ease and so they are less concerned with the attitudes of their national government.

At the global level, there could be concerns that Aurora is behaving so ruthlessly with respect to employment in a developing country. Local host governments may feel pressured to be seen to pre-empt any similar moves, which may be anticipated if the new COBOT technology further reduces the level of staffing required. Some of the countries that host Aurora's factories are producing assemblies for worldwide operations, such as engines and other parts. Those governments probably could exert a great deal of pressure on Aurora in the short term and the actions in Essland could encourage them to apply some pressure.

SECTION 2

Inventory turnover

The efficiency ratios generally involve taking a snapshot of a working capital balance at a point in time and linking that to an activity measure. For example, inventory turnover relates inventory to the rate at which inventory is consumed (i.e. cost of sales for a period) in order to demonstrate the average time taken by an item of inventory to be used or sold. From a purely mathematical point of view, Mr Gregory's calculation is correct, but his calculation will be misleading if the closing inventory figure does not reflect the usual or the average level of inventory throughout the year.

One problem may be that inventory levels fluctuate throughout the course of the year and so the closing inventory could be inconsistent by dividing by the total cost of sales for the year. If the year-end is a slow period because of fluctuating demand in the course of the year or other seasonal factors then the average inventory figure would be more realistic than the year end figure. The average inventory cannot be determined from the annual report and so any inventory turnover figure is potentially open to misinterpretation.

The numerator and denominator used by Mr Gregory are not necessarily wholly consistent and that could distort the ratio. For example, IAS 2 *Inventories* requires that we ensure that inventory is valued at the lower of cost and net realisable value, which could lead to a decrease in inventory at the year-end and a consequent increase in cost of sales. There could be similar problems if the production levels fluctuate from the normal because that can change the unit price of closing work in progress and finished goods and also the total overhead recognised as an expense. These corrections could have an impact on the inventory turnover ratio, although they are likely to lead to it being understated.

Inventory could also be overstated because of items that are not included in cost of sales. For example, Aurora could have significant inventories of advertising materials or promotional gifts that are accounted for under distribution. Those inventories are unlikely to be significant in comparison to inventories of parts, work in progress and finished goods, but they would lead to the overstatement of the turnover ratio to some extent.

Briefing

Mr Gregory clearly believes that Aurora should have inventory levels that are as close to zero as possible, with the ideal expectation from JIT being that parts and materials would enter the production process and emerge as finished vehicles shortly thereafter. Cars and vans would be shipped to buyers as soon as they were produced. In such an environment, inventory turnover would be closer to one day

than 42 days. That would, however, imply that Aurora's business model supported such a possibility.

Aurora's business model aims for cost savings by making items in bulk in a variety of different locations. For example, gears and other parts could be machined in one country, shipped to another for assembly into gearboxes and the resulting gearboxes shipped to a third country for assembly into vehicles. There may be a limit to the speed with which it is efficient to despatch intermediate goods and assemblies because of the need for shipments to be of a realistic size. It may be more efficient to send a batch every few days rather than daily. There could also be some logic in holding inventory for a short period because some buffer is necessary when the factory might be brought to a halt if a shipment is delayed.

Aurora builds in large quantities for the global market, which may further delay the sale of a product. For example, Dateline Vans are made in one location for worldwide sale. A van could spend, say, 14 days at sea after being built using JIT principles and being taken straight to a waiting ship. Furthermore, the need to ship goods in an orderly and efficient manner might make it uneconomic to despatch goods to customers immediately.

Finally, we have concerns about the manner in which sales are accounted for. It may be that Aurora gives customers cars and vans on consignment. In that case, the consignment stock may leave Aurora with the risks and rewards of ownership and so the vehicles are recognised as part of inventory. That creates a further delay in the cycle of making and selling items for sale, which overstates the figures being cited by Mr Gregory.

SECTION 3

Health and safety

Ideally, our benchmarking should be proactive rather than reactive. We do not wish to make too many comparisons on the basis of accidents that have occurred at different plants because that might create the impression that a small number of errors is acceptable. Aurora must work on the basis that almost all accidents are avoidable and that even a single accident is one too many. The benchmarking approach should focus on spreading good practice across the company.

We might start by developing relevant metrics that enable us to establish whether there appears to be a difference between the actions undertaken by different assembly plants to tackle the threats. For example, how many safety inspections are conducted in a given period? If there is a difference then we can at least have a discussion as to whether the more frequent inspections appear to be cost effective.

We could conduct process benchmarks to establish whether different plants take different approaches to minimising accidents. For example, comparing the form and content of safety courses offered to newly appointed staff would enable us to identify programmes that might be copied across Aurora. Any link between the level of accidents and different processes would help identify superior processes without creating the impression that accidents can be tolerated.

Diagnostic benchmarking might help us to link processes to the problem. The simplest approach would be to investigate the causes of all accidents and determine their cause. If the problem is due to staff behaviour then we know that we need to modify existing practices and we should roll any such modifications out across all plants. This will also help us to gather information about unavoidable accidents due to design flaws or other problems with the equipment.

Disciplinary action

The procedures need to be applied within a context where the supervisor or manager is somehow responsible. If we simply discipline people because their subordinates were injured then we will risk demotivating senior employees and possibly prompting resignations. We need to be clear as to what the responsibilities of supervisors and managers are.

Every incident should be investigated and its cause determined. These investigations should be conducted independently of the managers themselves to ensure that nothing is covered up. The investigation should be designed to reveal whether the incident was due to poor supervision, as opposed to reckless behaviour by the employee.

If the failure appears to be due to poor supervision then the supervisor or manager should be asked to comment on the allegation. The disciplinary process will be more effective if it is seen to be fair and transparent. If Aurora does not give those subject to the process the opportunity to defend themselves then there are risks that the process will be seen to be unjust and resentment will arise.

Any penalty should be reasonable and proportionate to the offence. For example, if the incident arose because of wilful neglect then it could be necessary to dismiss the supervisor. If, however, there are mitigating factors then it may be more appropriate to issue a reprimand or impose a short period of suspension.

SECTION 4

Negotiation

We need to start with a realistic understanding of our relative positions. Platt could, in theory, afford to sell the van at any price that offered a contribution towards fixed costs and profit. That would, however, be a high risk strategy because they do not wish to make it possible for us to undercut their version of the van on the open market. Conversely, we cannot afford to pay too much or we will be unable to compete on the open market.

We should be willing to pay roughly what it would cost for us to manufacture the van for ourselves, perhaps even a little more. That would relieve us of the pressure to update the basic design and also the need to manage the manufacturing process. Platt will be aware of this and so we may be able to argue that the cost of our own van is a little lower than it actually is.

Platt will benefit from his arrangement and so they may be willing to accept a fairly substantial contribution, provided we agree not to undercut them on price. They will benefit from being able to spread the fixed costs over a larger output and benefit from volume-related savings.

Capital budgeting decision

It could be argued that signing a contract with Platt is the equivalent of making a significant cash outlay. The payments under the deal should be evaluated in terms of their net present value. Arguably, if Aurora does not proceed with the Platt deal then it would be faced with the need to invest in its own factory and incur the ongoing operating expenses. That makes it necessary to develop an investment appraisal in order to compare like with like. While it is not necessary to have an initial cash outflow in an investment appraisal, the fact that the contract with Platt will leave a factory vacant in Essland could mean that there will be an initial inflow from the disposal of the factory, followed by a series of outflows.

The terms of the contract will determine whether Aurora has any real options, such as the decision to withdraw from the vans market or redesign the van. It is unlikely that Platt will leave Aurora with the option of pulling out because that will leave Platt faced with the problem of covering all of the fixed costs with a reduced volume of production and sales. That may not be a realistic concern because Aurora is unlikely to withdraw if sales are strong. If sales are weak then Platt may be keen to cease production. It is very likely that Aurora's interests will coincide with Platt's.

Disclosure

It is unlikely that there will be any disclosure.

There is no joint venture or joint arrangement here, so there is no entity to consolidate. All that is really happening is that Platt is making a significant quantity of a product for sale to Aurora. Aurora will not be participating in any management decisions or making a capital investment. Platt is in the same position as any major supplier in terms of setting the boundary of the Aurora Group.

In the same way, Platt is not a related party under IAS 24 *Related Party Disclosures*. There is no control or joint control and so Aurora and Platt cannot be regarded as related parties in that sense. Platt is a major supplier, but that does not create a related party issue.

It could be argued that the overall disclosure of the relationship with Platt for this product should be disclosed in order to ensure that the account present fairly, even though there is no specific requirement to that effect.