

MANAGEMENT CASE STUDY AUGUST 2017 EXAM ANSWERS

Variant 3

The August 2017 exam can be viewed at

<https://connect.cimaglobal.com/resources/august-2017-management-case-study-variant-3>

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SECTION 1

Sustainable advantage

Firstly, we need to clarify who the competitors are. The most immediate problem is that Aurora will be competing against manufacturers who continue to sell the traditional, fossil fuel diesel engines. A new car is a major investment and buyers must be persuaded of the merits of bio diesel as an alternative to other fuels. In the short term, it would be desirable to see other manufacturers launch their own bio diesel engines, partly to promote public acceptance and partly to ensure that there is sufficient demand for bio diesel filling stations.

It may be possible to enlist the support of government and other stakeholders to support the cause of bio diesel. If bio diesel is cleaner then that may be supported by government actions, such as reduced tax on the purchased of bio diesel cars or on the fuel itself. Some cities impose restrictions on the use of traditional diesel cars and it would be desirable to lobby to ensure that the ban does not extend to bio diesel, so that buyers have a further incentive to invest.

Paradoxically, Aurora needs to encourage other manufacturers to enter this market in order to establish bio diesel as a fuel, but it must also find a way to distinguish itself in the process. It may be helpful to be the first to market so that Aurora becomes associated with bio diesel in the minds of potential buyers. That can be reinforced by heavy marketing of bio diesel variants in order to maintain that perception. Even though Aurora will continue to sell petrol cars, the advertising of bio

diesel will maintain an overall brand awareness and so advertising need not be proportionate to the revenues generated.

The fuel infuser is also a basis for differentiating Aurora's bio diesel engines. Ideally, that needs to be protected by an exclusivity agreement with Lemarr, so that no other manufacturer can use this device. Ideally, there will be a critical mass of bio diesel vehicles on the road, with Aurora's regarded as the most technologically advanced.

Lifecycle costing

Initially, we need to aim to design costs out of the product. We can aim to do that partly by examining Lemarr's initial costing, bearing in mind that Lemarr is a design studio and it does not have Aurora's expertise in manufacturing. The rough costings submitted by Lemarr offer considerable scope for reducing costs. For example, Aurora will not build traditional diesel engines and then modify them. There will also be scope for both reducing costs and improving quality on the fuel infuser by automating production rather than building by hand.

Traditionally, lifecycle costing suggests minimising the time to market. In this case, that urgency needs to be consistent with the need to educate and inform potential buyers and also the need to avoid rendering any traditional diesel cars that are in inventory unsellable. Aurora certainly needs to ensure that its brand name is heavily associated with bio diesel from the outset and so this phase may be about marketing and publicity rather than rushing to bring the engine to market. Apart from educating buyers, Aurora must also ensure that the eventual launch of the new engine is not marred by technical problems and so quality and reliability will have to be managed at this stage.

Finally, we need to maximise the lifecycle of this engine. It may be that this can be achieved partly by focussing on the nature of diesel engines. Their simplicity makes them robust and that should encourage repeat sales. If customers are happy with the reliability and performance of their bio diesels then word of mouth will also help to extend the lifecycle. Aurora should also gather as much information as it can to identify and address the need for improvements, bearing in mind that car dealers will be asked to carry out regular servicing on all cars.

SECTION 2

Reporting implications

Presumably, Sandra has offered to sell us 49% of her company in the hope that retaining 51% will leave her in control. If we can appoint a majority of the board then we can dictate the vote at all board meetings and so we will have control, even though we own less than half of the shares. That control means that we have to consolidate Lemarr as a subsidiary in the group financial statements.

The investment is going to involve a significant expansion of Aurora. Presumably, we will acquire the shares by issuing Aurora shares to the value of the agreed price to Sandra and she will give us the agreed 49% of her shares in Lemarr in return. Aurora's equity will increase by the fair value of the equity that has been issued, which will presumably be the W\$800 asking price. The shares issued will be recorded at their nominal value, with a credit to share premium for the difference between the nominal value and the W\$800.

Lemarr's assets will have to be valued at their fair values in order to determine the goodwill on acquisition. We will have to estimate the fair value of the patents and copyrights because those are separable from Lemarr itself and could be sold separately. Presumably, those assets will be worth significantly more than the capitalised professional fees that are presently shown in Lemarr's financial statements.

In the longer term, the impact on the consolidated financial statements will be to reduce the gearing ratio slightly. The issue will increase equity and liabilities will remain unchanged. Reported revenues and earnings may also increase in the event that Lemarr continues to undertake work for third parties. At present, the company has a very large balance on trade receivables and that suggests that it is conducting significant external work on a consultancy basis.

Investment centre

It would be ideal if Sandra Lemarr would continue as chief executive of Lemarr, if only to ensure that the 51% stake that she retains is protected. She appears to have done an excellent job of creating a sound engineering design consultancy and we should be willing to give her a significant amount of discretion in order to continue that work. If we have a number of other board members to work alongside Sandra then we would wish the newly formed board to have the freedom to develop its own direction, so that the creative process is not constrained in any way.

The board should give Lemarr a clear sense of purpose, so that the discretion that has been granted can be put to the best possible use. It needs to be made clear whether Lemarr will continue to offer consultancy to third party customers or whether

it will exist to serve only Aurora's needs for high quality design work. Sandra should be asked to develop long-term design briefs for her staff to pursue, which will also give Aurora's board a means to track progress.

An investment centre will recognise that research and development costs are discretionary and that costs are not necessarily controllable in the same way as for other operating expense. It may not be appropriate to aim to minimise costs because that could discourage investment and cost significant opportunities. Establishing Lemarr as an investment centre will allow for the possibility of investing heavily in promising results when the outcome seems positive.

Given the scale of Aurora's investment and the importance of new design, it would be appropriate for every board meeting to receive a report from Sandra. Ideally, she should report in person so that the board can ask questions and seek clarification. Apart from anything else, that level of interest will help to motivate Sandra by demonstrating that the board is interested and appreciative of her efforts.

SECTION 3

Team's duties

It may be realistic to combine these tasks because they are complementary aspects of the introduction of the new engine. In the short term, the team will be working on the negotiations with dealerships for the new models of existing cars and that experience may be useful in persuading them of the virtues of the Enviro range. Having continuity in this process will ensure that this does not confuse the stakeholders with whom the team has to liaise on these new models.

Combining the tasks will also reduce the risk of dysfunctional behaviour that might arise if the resources have to be prioritised. For example, there may be a limited number of engines while production is being built up and so a decision will have to be taken as to how many are to be made available for existing models and how many for Enviro. The fact that the team is responsible for both means that any decisions are made with Aurora's best interests in mind.

In practical terms, it might be difficult for the Enviro project to be given sufficient attention during the first few months because the changes to existing models will have priority. The team's initial priority may be to ensure that sales of existing cars do not falter because of problems with the initial introduction of the new engine and that will be pressing because it is very much a short-term matter. The danger is that the first three months of the Enviro project will be lost and that the launch will either be delayed or some of the key decisions will prove to be suboptimal.

There is also the risk that the team will simply be overwhelmed by work in the first phase of this project. That may lead to the division of the team between the two tasks, which would undermine the whole point of having a single team. If the team is forced to prioritise then it may not necessarily be in Aurora's overall interests if the focus is on avoiding criticism.

Transfer pricing

The fact that we own 51% almost certainly makes Lemarr a subsidiary, albeit one with a significant non-controlling interest. That complicates matters because the minority shareholders will have an interest in maximising the revenue from Aurora's use of the design. Aurora will effectively be paying 49% of any royalty to a third party and so it will be tempting to underpay, creating potential for a constant source of conflict.

Ideally, we will set the transfer price at the royalties that would be charged on the open market, which would be acceptable to the tax authorities and should be regarded as fair by both Lemarr and Aurora. Unfortunately, any such rights will be unique and that will make it difficult to demonstrate that a fair price is being paid. Observable transfer prices will be a further source of conflict because both Lemarr and Aurora will be able to find examples that call for an increase or a decrease in royalties.

Lemarr could be encouraged to indulge in dysfunctional behaviour if the transfer price is regarded as too low. There will be little incentive to develop new products to the very best of Lemarr's ability if the resulting inflow does not offer a realistic return

for those efforts. Products may be released to Aurora without them having been developed to their full potential.

The design itself is likely to be used in the long term, but its value will diminish over time. Competing designs will be developed and so the advantage of using Lemarr's design will decrease. That will lead to a constant return to the question of how the use of this design should be priced.

SECTION 4

Impairment

The production line is impaired if its book value exceeds its recoverable amount, which is the higher of its fair value and its value in use. This is an unusual case because it would be unusual for impairment to arise in the context of a new asset, such as the production line. A major investment would normally have been evaluated on the basis of its net present value and so a recent acquisition would normally have a value in use that exceeded its book value. We need to start by investigating the future cash flows from this production line, including the rectification costs that may be necessary in order to improve the precision with which we manufacture these engines.

We should also consider the nature of the production line and its potential fair value. It may be that the flaws render the production line useless and its fair value may be very small. Conversely, automated production lines are often very flexible in terms of their operations and it may be possible to sell the line because it could have value in making a traditional engine. The fair value would be difficult to determine, but the equipment is reasonably new and so the fair value might be evaluated in terms of deducting a discount from the replacement cost of a new line. We may be able to obtain expert advice from an architect or other professional who designs and installs such equipment.

Business risks

The most significant risk is the damage to the reputation of the new bio diesel engine. Consumers may be reluctant to buy this new technology because they will be understandably concerned that their new car may catch fire. The fact that Aurora is acting responsibly and acting quickly to rectify matters does not alter possible concerns that similar faults may materialise over time even if the initial production errors are corrected. The fact that the fault leads to spectacular fires makes them far more newsworthy, which will only further damage the product's reputation.

There is a risk that Aurora's competitors will benefit from this event by launching their own bio diesel engines, carefully designed and manufactured to eliminate the fire risk. These manufacturers will then be able to publicise the fact that they have developed safe and reliable bio diesel engines and so capture this market from Aurora. These competing designs may be no better than Aurora's, but it is only the perception that really matters in terms of the customer's buying decision. It may also be possible for competitors to benefit from the disruption caused by the recall, which could make it difficult for Aurora to make and sell bio diesel engines while rectifying faulty units.

Disciplinary action?

The shareholders and other stakeholders may be concerned if we do not take disciplinary action. We find ourselves facing a public relations disaster and also significant rectification costs in order to put this matter right. If we do not take action against the managers who were responsible then the board may seem ineffective and reckless. There is also the concern that disciplinary action will send a signal to the rest of the company that managers have to be held accountable for their actions.

The danger is that there can always be an adverse outcome from a risky venture such as automating the fabrication of a new product. If managers are blamed for accepting business risks that are at least partly unavoidable then they may become so risk averse that the company is held back. Decisions will be delayed by managers seeking confirmation and authorisation from their superiors, which could eventually see the board being asked to sign off on decisions that should be taken at a lower level. That could lead to further delays if the board does not feel sufficiently informed to make a final decision.