# CGMAX MANAGEMENT CASE STUDY MAY 2019 EXAM ANSWERS

## Variant 1

**Section 1**
**Expanding production**

The following approaches are worth considering:

a) Existing cash resources. We currently have significant levels of cash. It might be worth considering investing some of that in our project. It should, however, be borne in mind that this cash is an asset that has already been funded by Jord, through debt, equity or a combination of the two. Existing cash balances are not, therefore, an inexpensive source of funds. It would, however, have the advantage of eliminating the costs associated with raising finance. There could be problems if we divert funds that are required for some other purpose. We could, for example, find it necessary to raise additional cash in the future and so we will only be delaying those costs.

b) Debt. The business has no existing debt or gearing, but is consistently profitable and also has a number of assets (property, plant, inventory and trade receivable) which could be provided as security to a bank. Therefore, we should be able to raise a significant sum of money in this way. The cheapest debt is usually provided by securing the debt against assets, so we should look at that option first, and then a cash flow loan based on our historical profit/cash generation which will be slightly more expensive. In terms of disadvantages, we will need to pay these loans back out of cash flow over several years, and interest will be charged annually, although interest can be offset against the organisations tax liability.

c) Equity. The final option is by raising equity from new investors. This will affect the shareholders more than the company as it will dilute the percentage of the business they currently have, but the new shareholder may require a certain level of control of management decisions which could be undesirable. They might also want to sell the business in the future to realise their investment. A cheaper and potentially more straightforward way of raising equity would be a rights issue for existing shareholders. This carries no implications for the company itself, shareholders would retain their relative share, and is almost the same as the cancellation of the dividend noted in b) above, as cancelling a dividend or putting cash in amounts to the same thing. For example, if we are due to pay a dividend of $100 but need $100 investment from the same shareholder who would receive the dividend, then cancelling the dividend amounts to the same thing.

## Just-in-time and expansion plans

A just-in-time (JIT) system depends upon seamless working within an organisation and between an organisation and its suppliers.

In the short term, expanding by 25% will impact on our ability to operate the JIT systems in the way we do now. Efficiencies will be lost whilst getting used to operating at the new higher production levels.

The extent to which our approach is disrupted depends on the effectiveness of our management team in expanding in an ordered and effective manner. It also depends on the choice we make between expanding production via an extension of the current site or expanding to a new distant location.

Expansion of the existing site seems most likely to minimise the impact on JIT working. Although it will take time to train new staff members to get up to speed and become fully efficient in their ways of working, ordering systems and linkages between different stages of production are likely to remain similar. In that scenario we might predict that, although there are likely to be short-term issues with preserving just-in-time working, they are unlikely to persist long-term.

If, however, we expand by taking on a new site that is geographically some distance from the current operations, JIT working is likely to be more fundamentally impacted.

The efficiency impact is likely to be higher, however, if the distant site is chosen. There will be an impact arising from the logistics of how the two sites work together. Depending on which elements of production are located at the distant site, there could be issues with transporting raw materials or work in progress between the sites, issues with communication between the two sites and by physically splitting the workforce inefficiencies arising from any members of staff who need to operate at both sites – for example, potentially our quality control team. This may lead us to choose to expand the current site as a more efficient option if there aren't any other issues that may make that a sub-optimal choice when we investigate the details of this expansion.

Whichever site we choose there will be an impact on suppliers, and we will have to talk to them about how quickly they can meet higher levels of demand. Some suppliers may find it easy to quickly flex their output to meet our new levels of demand, but for others it may take time to meet the new levels of materials required.
Also, irrespective of the choice of site, if new machines are needed it will take time to order those, implement them and train staff in their use. All these implications will impact our just in time approach regardless of whether we expand the current site or develop a site further away.

We will, however, seek to ensure efficiency is improved as soon as possible whichever way we manage the expansion, and that JIT working resumes as soon as possible. Will still strive to minimise waste and work fluidly as we always have. Therefore, I would hope the impact would be short-term, and that over a longer time scale we can start to return to the outstanding levels of efficiency we operate at now.

## Section 2
## Risks of proceeding with each site

Site One

The voles

As you know, at Jord we pride ourselves on our desire to care for the environment. Choosing this site, this would really damage our reputation and brand on this front. Even by doing everything we could to rehome the voles in as caring and safe way as possible, we are still likely to experience bad publicity for our actions. In our risk register, the environment risk, after mitigation, is already at a medium level and this is only going to increase if we pursue this site.

There is also a risk that some of our staff will become disillusioned and demotivated, as at least some of our staff are likely to be working for us because of our caring approach to the environment. Quality of staff is a perceived risk, according to our register. Losing key staff over this issue would only add to this risk which is already deemed to be high.

Planning laws are another risk that we have currently highlighted. At the moment, this is seen as low risk. However, it is likely to take longer to get agreement from the planning authorities to enable us to begin work on this site, as they will clearly want us to prove that we have a satisfactory method for rehoming the voles and they are likely to be bombarded with protests from environmentalist groups. This can only lead to an increase in risk to at least medium.

There is also a risk that the cost of rehoming the voles will eat into the likely return from our investment.

There are, however, upside risks to us choosing this site. As this is the same site as our current operations, there will be no additional costs of moving materials and part-finished timber work to the other site and it should be easier for us to maintain target stock levels and efficiencies.

<u>Site Two</u>

<u>Operating from two sites</u>
Working across two sites, even though they are only 5 km apart, will make it more difficult to use our current efficient approach in the production and supply processes. It will be more complicated, at least in the short term, to co-ordinate operations and some of our processes may involve duplication over the two sites given that Site Two will effectively be a smaller replica of our main site. This would, of course, adversely impact on the efficiency of our operating processes, although some of this could be mitigated over time.

There are likely to be increased costs of operating over two sites due to issues with logistics. We know that the timber cutting function will remain at Site One so at the very least there is the question of how cut timber will be transported between the two sites and how this will potentially impact on time schedules and quality.

<u>Quality assurance</u>

By transporting timber between the two sites it increases the risk that it will be damaged or delayed in transit, all of which will impact on the way Jord organises its work. From a quality assurance perspective, we will need to ensure that the quality control team working at the new site are trained to the same level as those at the original site as this is a fundamental part of ensuring we produce a high quality, reliably luxurious house product.

There is an upside risk, however, with choosing this site in that we would preserve or enhance our reputation by publicising the fact that we have chosen this option and we didn't want to disturb the voles from their natural habitat.

**Communicating expansion plans with stakeholders**

There are several stakeholders that will be interested in the expansion plans and will, therefore, need to be communicated with.

**Shareholders** will be most interested in the expansion plans. There are few shareholders in this business and, so, communication with them should not be difficult. Some of the shareholders are members of the Larsson family and those who work in the business are likely to already be aware of the plans. All shareholders should be contacted with details of the planned expansion. This might most effectively be done via a shareholders meeting or letter, outlining the rationale behind expansion and why management think it would be good for the business.

**Staff** will also be extremely interested in the expansion plans and will need to be made aware of the plans and how they are impacted upon at work. Although we won't be able to fill in all the details of exactly how roles will change at this point, we will be able to give staff an idea of their initial plans, particularly with regards to recruiting new staff and how training and managing those staff will be approached.

**Suppliers** will need to be informed of the plans, particularly as Jord has a close relationship with suppliers, working on a just-in-time basis and utilising seamless connections with suppliers to get the flow just right. Initial conversations should involve understanding whether suppliers will be able to continue to meet demand at a higher level and include early discussions about how Jord and its suppliers may continue to work closely together to preserve the excellent systems of production at higher quantities.

**Environmentalist groups and the local media** will also be interested in our plans, particularly if we pick Site One for our expansion. We will need to carefully explain how the impact on the environment will be managed and how the Corvolan pine voles will be safely rehoused. Good communication is essential here to prevent protests from the environmentalists and any damage to our reputation. One appropriate communication technique for this information may be a press release.

**Section 3**

**Email to shareholder**

The comparison lists three performance measures for each site. The concern appears to be that the site with the better NVP has the poorer discounted payback and IRR. That problem is readily dealt with because NVP is the only criterion that directly measures the impact of a decision on shareholder wealth. Site Two has the higher NPV and so it is the superior investment. Any counterarguments based on IRR or discounted payback will be confusing.
IRR measures the return that is being earned on the funds invested in the project. Any project that has an IRR that exceeds the required rate of return will have a positive NPV. That means that Jord should accept both projects if it can. Clearly it cannot, in this case, because the two sites are mutually exclusive investments. Acquiring one would mean that there was no need for the other.
When comparing mutually exclusive investments, IRR can give misleading results because it ignores the scale of a project. Scale is usually related to the amount invested and the duration of the project. In this case, Site One offers a higher rate of return, but on an initial investment that is C$2 million smaller. In absolute terms, Site Two offers a larger increase in wealth because it gives a good return on a larger initial investment.

The discounted payback of Site One is shorter, but that does not necessarily make it a better investment. Certainly, a project that offers a rapid discounted payment can be expected to offer significant inflows in the early years of the project. Companies may consider the payback criterion when aiming to manage their long-term cash flows. However, a more rapid payback does not outweigh a larger NPV because discounted payback is not a direct measure of the impact on shareholder wealth.

**Project team to manage expansion, tools and techniques**

Jord will need to employ project management tools and techniques to ensure the expansion project goes well.

This will involve recruiting the right members of staff to a team of people, brought together to action the expansion. The team may involve current members of staff and external people brought in to help where we do not have the expertise or manpower alone. Ideally, the team would comprise people with different skills and abilities in the right balance to get the job done. It may be beneficial to include members of staff from all five of our operating divisions, as all divisions will be impacted to some extent by the expansion as, whilst they type of work they are doing shouldn't change, the amount of work passing through each division will increase by up to 25% compared to what it is used to although it is clearly recognised that additional staff will need to be recruited for each division.

Once the team is congregated there are several tools that can be used to assist the process. Risks will need to be assessed and managed using tools such as 'TARA' where risks are assessed for probability and impact with plans made accordingly to transfer, avoid, reduce or accept the risks arising from operations.

A work breakdown schedule will be useful to organise the work to be done into more manageable sections and a Gantt chart could show a useful visual representation of the work schedule, including potentially elements of the project that are inter-dependent. A Gantt chart aids clarity and makes complicated projects simpler to view and manage.

Scenario planning can be a useful way to understand how uncertainties may impact on the final project outcome and in this scenario could be helpful in ascertaining how high costs could go if certain circumstances arise. If certain scenarios are very expensive then we will need to act to make sure they don't arise.

Finally, project management software could be very useful to Jord, as an organisation very comfortable and familiar with using software in house scheduling it could be extremely helpful to use similar software systems adapted for this project. Software can be useful to enhance collaborative working across the project with document sharing, budget management, time scheduling, monitoring and communication all useful roles that can be completed with effective software.

**Section 4**

The need to capitalise the leased assets in the statement of financial position, along with their associated liability, is governed by IFRS 16 *Leases*, which came into force for accounting periods beginning on or after 1 January 2019, which makes it relevant to Jord.

IFRS 16 requires that leases be accounted for on the basis of their economic substance rather than their legal form. Jord will not own these assets in a legal sense, but it will control them for the duration of the lease. IFRS 16 requires that the present value of the future lease payments be calculated at the start of the lease and for the present value to be capitalised as an asset and a liability. The asset will appear under PPE and the liability will be split between current and non-current liabilities, depending on whether they are due within or after 12 months.

Unlike previous standards, IFRS 16 does not permit any discretion over the interpretation of the lease agreement. The fact that a lease has been signed requires that the value of the lease should be capitalised, with the asset being depreciated over the shorter of the lease term and the asset's useful life. The liability will be adjusted for the lease payments and the interest accruing on the liability. The categorical treatment of all leases in the same manner is due to the need to eliminate opportunities for the distortion of the financial statements through creative accounting. Historically, leases have been misclassified by some companies who wished to minimise their gearing ratios. Indeed, financial institutions have developed lease in the past that were designed to enable companies to manipulate their financial statements and understate their gearing.

If Jord could be permitted to have the lease flow through the statement of profit or loss, as Theo wishes, then the shareholders could be misled as to the company's true financial position. The future lease payments would be just as much a commitment as the future payments of capital and interest on a loan. Excluding the present value of the payments from the statement of financial position would create the impression of a lean and efficient enterprise, with little in the way of either PPE or debt.

**Communication with and training of new staff**

The new members of staff will represent around 15% of our overall workforce. It is important, therefore, that we bring them on board as efficiently as possible, to minimise the settling down process. It will be important to get new staff up to speed quickly with Jord ways of working to ensure the costs are managed and our production schedules are not jeopardised.

A programme should be devised to train new staff, and those members of staff involved in administering the training should be informed of the timings and the nature of what is required. Existing staff will be useful to help train the new workforce, and techniques such as mentoring and teaching whilst on the job will be effective. However, we haven't conducted a training programme of this size before so our human resources director, Eva Edberg, will play a key role in identifying and scheduling the training required and obtaining additional training resource where necessary. Eva will work with the finance department to ensure that is run to budget and implemented smoothly.

Good communication throughout the process will be critical and presentations, team meetings and communication of information by email will all be useful mechanisms to ensure that staff have the information that they need, when they need it. It is important to create an atmosphere where staff feel comfortable asking questions, so ensuring the people at the top and the people responsible for training new staff are approachable and helpful is an essential part of the process.

**Performance targets**

Although Jord is likely to want to use the same or similar performance measures after expansion, it is unlikely it would be optimal to use the same targets in the short-term and if they do this could cause some demotivation amongst staff.

Efficiency levels are likely to drop in the short-term as people get used to working at the new higher production levels. There will be new members of staff to train and they cannot all be expected to reach Jord's high standards of effective working immediately. Both new and old members of staff will be discouraged if no account is taken of the changing circumstances in the targets they are working to meet.

Some operations may also be adversely affected by the fact that we are now working across two sites. For instance, timber cutting only occurs at one site meaning that transportation between the two sites must be scheduled into workflows. It will be necessary to increase the standard cycle time for the process being completed from start to finish to take account of the movement of timber and other changes arising when two sites are operational. Failure to include these changes make the old targets unrealistic and therefore potentially ineffective drivers for staff.

It seems sensible to look again at targets provided to staff, adjusting for the anticipated changes in short term efficiency. We may even want to put in place some different performance measures from those currently used to encourage smooth transition to higher levels of production.

Hopefully, then, in the long term, as Jord staff benefit from the learning curve effect, things will return to a state that is as efficient as before and we may well find that targets can return to their pre-expansion level once things have settled down.

If Jord takes no account of the new working situation and keeps efficiency and waste targets at the same levels as they were before expansion there could be a significant impact on morale which would further increase the challenges faced in this time of change.