MANAGEMENT CASE STUDY NOVEMBER 2018 EXAM ANSWERS

Variant 1

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SECTION 1

Project appraisal

The conclusion that the investment appraisal for the acquisition of TigerFizz, using the net present value method, is positive and therefore worthwhile is correct. The positive amount is assumed to be the increase in the shareholder wealth. However, it is worth noting that the amount is Z$0.3 million and Grapple is paying Z$5.1 million in the first two years to acquire this. This is not a high return on investment. If any one of the elements of the appraisal calculation is incorrect this may lead to the outcome being negative and we should consider the likelihood of this occurring.

Sensitivity analysis should be performed to determine how much each of the inputs would need to change before the net present value of this project becomes negative.

Taking each element individually we would determine how much a change in percentage terms it would be if any of the costs were to increase by Z$0.3m. For example, for the fixed costs Z$0.3m/Present value of fixed costs x 100%. This could be applied to restructuring costs, revenue and variable costs too. Sensitivity analysis suggests the critical factors for the board to review but it does not provide a probability of the chance of this happening.

In addition, the board may find that the competitive advantage period is less than 5 years and so the amount of net cash inflows generated over that time is less than the calculation suggests. It is not clear how the competitive advantage will arise, especially as we will still be much smaller than Party Pops and Carnival. A reduction in the actual competitive advantage realised would reduce the net present value of the investment.

We have assumed that the cash flows occur at the year end. This is not realistic and they would appear throughout the period. This may make the net present value slightly higher.

Finally, we have used the weighted average cost of capital (WACC) to determine the net present value of the project. This is only suitable if we going to raise finance that keeps the gearing ratio constant over the next 5 years. This may not be so if we raise additional finance to acquire TigerFizz. It also assumes that the business risk associated with TigerFizz is the same as Grapple. This may be the case as they are in the same industry although they are a different size. However, it is appropriate to use WACC if the investment is relatively small in relation to our business. This is the case.

Grapple should consider looking at how long it will take for the investment to cover the initial outlay. This project does not pay back until the final year, which could be considered too risky.

Overall the above should be considered before a final decision is made.

Long term sources of finance

Grapple needs to raise Z$3m to acquire TigerFizz.

Debt

Grapple is an unlisted entity. There may be some scope for issuing bonds but it is more likely that a loan will be arranged through the bank.

The bank loan would increase the non-current liabilities and therefore the level of gearing. A high gearing ratio may deter future investors as it is perceived as making Grapple appear riskier than before. In addition, the bank will charge interest on a regular basis. The rate of interest may be fixed or variable. This also adds an element of risk to the lending. Finally, Grapple will need to make sure that there are sufficient funds to repay the loan at the end of the term.

The loan may also have covenants attached which would restrict further borrowing or impose repayment deadlines if conditions are breached.

Rights issue

A rights issue is offered to existing shareholders allowing them the right to acquire shares in Grapple in proportion to their existing holding. The shareholders are family members. They would need to be able to raise the funds privately in order to acquire the shares. Given the lack of interest in Grapple of 40% of the shareholders, and the previously expressed desire to raise personal funds, it may be unlikely they take up the rights issue. Alternatively, they could sell their rights, but there may be a limited market as Grapple is not listed, and it would mean that the control over Grapple would change.

Issuing shares would increase equity and therefore reduce the gearing. This would potentially make Grapple appear a less risky prospect for investors in the future. The benefit of shares over debt is that dividends do not need to be paid each year, as they are issued at the discretion of the directors. Also, the shares are irredeemable, so investors are not expecting to be paid back.

Surplus cash

Grapple has cash reserves of approximately Z$2 million. If this was spent acquiring TigerFizz, Grapple would only need to raise an additional Z$1 million by either loan or through a share issue. The use of the cash would mean that the shareholders may not receive a dividend this year and the cash may have been 'ear-marked' for other projects which may not now proceed.

Other investors

Other external sources of equity finance may be available from new individual investors, business angels and venture capitalists. New investors would expect to acquire equity and this may provide an exit route for Roger should he decide to retire in the future.

Use of surplus cash and loans may be the best option for financing.

SECTION 2

Risk management

The risk map allows us to plot the risks and the likelihood of their occurrence on a diagram and identify the suitable course of action. Risks with a substantial impact on the business and with a high chance of occurring require urgent attention whereas those with a lesser impact and lower chance of occurrence need less.

If the likelihood is high but the impact is low we should seek methods of reducing the risk. Whereas if the likelihood is high and the effect is also high we should avoid the risk, by perhaps not going ahead with the project.

If the likelihood is low and the impact high, we would try and share the risk or transfer it to another entity using, say, insurance. If the likelihood is low and the impact is low we may simply accept the risk.

Taking each risk mentioned in turn:

1. What if TigerFizz continues to perform below expectations for the foreseeable future?

   We have accepted that this is a substantial investment for us. If TigerFizz were to fail this would have a significant impact on our results and possibly our ability to continue trading. The likelihood of this happening is unknown. We would make sure that we have reviewed the financial statements of the business carefully before it is acquired. If, having done this, we find that the risk of failure is high, because they may not make profits or that TigerFizz is not a good fit culturally, then Grapple should 'avoid' and not acquire Grapple. If the likelihood is low, we may be able to share the risks by suggesting that some of the consideration is made conditional upon the future results of TigerFizz reaching a certain target.

2. What if interest rates rise from the current 3% to 3.5%?

   0.5% is not a significant increase in interest rates when we consider that this would be about Z$15,000 if the entire consideration was borrowed. The likelihood is unknown, but we could research the economic forecast to help determine how likely this is to happen. As the effect on the financial statements is not substantial, we may well accept the risk, as long as there are no other concerns about the profitability of the group.

Fair value adjustments

What are they?

According to the principles of consolidated financial statements using international accounting standards, when a subsidiary is acquired its net assets are recognised at fair value. The difference between the carrying value (the value of the net assets in the subsidiary's financial statements) and the fair value of the net assets (the market value) on the date of acquisition are known as fair value adjustments. For TigerFizz, the difference of Z$0.7 million (Z$1.6m - Z$0.9m) for the land and Z$1.1m (Z$1.1m - Z$nil) for the brand name represent the fair value adjustments. The fact that the brand name was internally generated by TigerFizz means that it will not be recognised as an intangible asset in the single entity financial statements. As Grapple would be acquiring the brand it would be recognised in the consolidated financial statements of the group.

When calculating goodwill on the acquisition of TigerFizz, Grapple will deduct the fair value of the net assets from the consideration payable. The adjustments calculated here are added to the current carrying value to create the fair value of the net assets.

The effect of fair value adjustments on the consolidated financial statements

The increase in the value of the net assets at acquisition from carrying value to fair value will affect the consolidated financial statements in two ways:

- The value of goodwill is reduced from what it would have been had we calculated it based on carrying values. This increases the value of land in the non-current assets on the consolidated statement of financial position. In addition, there will now be an intangible asset called Brand.
- The increase in the value of the brand that has a useful life of 25 years, will mean that there is an amortisation charge made to the consolidated statement of profit or loss will increase thus reducing the group profits in the post- acquisition period. Land is not depreciated. The amortisation is Z$1.1m/25 years i.e. Z$44,000. This is not a significant sum compared to the level of profits.

I trust this has answered your queries but if you have any further questions please just ask.

SECTION 3

Redundancy Process Guidelines

We are considering the redundancy of almost 40% of the combined production workforce, which is likely to have a great effect on the morale of the entire organisation, considering our reputation as a good employer. This will need to be managed very carefully as it could have an effect on the successful integration of the two companies post-acquisition, and lead to conflict between the workforces of the two companies.

Some of the aspects we must consider are as follows:

Compliance with law

We should check the current legislation in place. There is a requirement to comply with any legislation relating to HRM. If we fail to do this there would be the risk of legal action by employees, and the possibility of fines and compensation claims.

- Collective redundancy

  We are considering making 51 production personnel redundant which would be considered collective under UK laws, although the legislation is unclear here. This would normally require the workforce to be consulted. This means we should have an open mind to how the process will progress, and be prepared to adapt, rather than have a fixed approach in mind. We would also consider holding discussions with any trade unions.

- Selection terms

  These should be transparent and equitable. There are specific grounds for redundancy, and these do not relate to the person themselves, but rather the job they do or the location at which they do it. It will not be difficult to justify making the production team for Fruit Fizz redundant, as that product will disappear from our portfolio. It will also not be difficult to justify redundancy on the change in the nature of the job being done, given the proposed increased automation.

  We should, where possible, attempt to make use of voluntary redundancy before compulsory, as this should minimise resistance (early retirement, job share, reduced working hours). It could be, though, that we end up with more staff trained on still mixers for example, and not enough on fruit juices, the workforce of which is not being reduced. We could overcome this by only opening voluntary redundancies to some members of staff.

There is also a danger that more experienced employees will opt to leave, and a 'brain-drain' occur.

- Payment terms

  There is usually a legal statutory minimum payment. However, we could choose to pay more. This could encourage some employees to accept voluntary redundancy and reduce the number of compulsory redundancies.

Minimising Resistance

- Natural reduction

  Given that we are not yet in a position to implement the redundancies, we could start to reduce the workforce naturally, such that any leavers or not replaced, and no new recruitment takes place.

  We could also consider offering early-retirement for some staff approaching retirement age. However, this is highly unlikely to cover the numbers required in this case.

- Communication

  We should clearly communicate the necessity for redundancy.

- Clear and transparent processes

  As mentioned previously. This will ensure that resistance does not come from a lack of knowledge or understanding of the process to be followed.

Behavioural consequences of divisionalisation

Restructuring into divisions on a product base will allow many business benefits, such as improved decision making due to increased autonomy, which should lead to better performance. However, we need to consider the potential behavioural consequences, both positive and negative. These could include the following:

Internal competition

This could be a highly positive feature for Grapple, as internal competition could lead to innovations and improvement as divisions attempt to beat each other's performance, whether that be in sales, profitability or market share for example. However, if we emphasise this too greatly e.g. Fruit Juices production is already fully automated and as such the fruit juices division (which will contain Grapple's fruit juices product line only) may enjoy being seen as the 'best' division. This internal competition could make the division less likely to share how that success has been achieved, thus forming a barrier to improvement rather than an enabler.

Internal trading and transfer pricing

We are aware that the residue fruit pulp from manufacturing processes within the fruit juices division will be used in the production of other products from the other divisions. Whilst this pulp may have no production value to the fruit juices division, it may charge high transfer prices to ensure a good profit margin. The other divisions may choose to buy their pulp elsewhere on the external market. These actions would lead to goal incongruity and negatively affect the overall profitability. We might find the need to step in and set transfer prices centrally. This, however, would reduce autonomy and may itself lead to motivation issues.

Controllability

Divisions may act as profit centres but still incur some uncontrollable costs e.g. if we share the costs of our accounting and finance department. This may lead to requests for increased accountability for centralised costs. In itself, this is not necessarily a bad thing as it may enhance efficiency. However, it could lead to additional administration which would not be cost beneficial for the company as a whole. It could also lead to tension between head office managers and the divisional managers.

Performance measurement and management

We will need to be able to compare divisions, but in doing so will need to ensure that the performance measurement systems used are compatible and comparable. There may be a tendency in divisions to use whichever measurement sets them in the best light. For example, Fruit Juices division will be a smaller division if we look at current figures (even if we ignore the products moving over from Tiger Fizz) and so the divisional manager may prefer to use Return on Investment (ROI) when investment bids are submitted for central approval, but the carbonated mixers division may prefer to use Residual Income (RI) if submitting bids for larger projects than other divisions would submit.

Comparison between divisions could lead to different methods being adopted in divisions to show enhanced performance, or to positive NPV investments being rejected, if they damage divisional performance overall. We would need to get involved centrally, to determine systems of measurement and management.

SECTION 4

Explanation of method for selecting from mutually exclusive projects

There are different ways that we can choose between mutually exclusive projects, but the majority of them are based around the calculation of a present value i.e. what they would cost in today's terms, given the time value of money.

When we have mutually exclusive projects which have different life expectancies, then we must take this into account when deciding which to proceed with, given that those with a shorter life expectancy will, presumably, need replacing sooner than an alternative with a longer life. Hence, we cannot just compare a straightforward Net Present Value (NPV).

David has used two methods here, although the first is very straightforward. In order to reject the FFMS project, he has simply compared the required initial investment with the amount of capital available for investment. In this case we have a capital ration of Z$300,000 but the FFMS project would cost more than that initially. Therefore, it was rejected. The rationing is soft in nature, which means we could be flexible with this, if it was deemed worthwhile, however, we would need additional information in order to decide this.

To decide between the HLAM and SM projects, David has used the method of Equivalent Annual Cost. This approach determines the average annual cost in present value terms, allowing projects to be compared despite the fact that they have different useful lives (HLAM 20 years and SM 15 years). It assumes that the projects will be continually replaced on a like for like basis in perpetuity.

All costs are determined, and the years in which they will be incurred. The present value for each cost is then calculated by multiplying it by its present value factor, in this case $1/(1.10)^n$ given the cost of capital of 10%. The present values of all costs are summed to give a net present value (NPV) for the total costs. Whilst NPV calculations would normally also contain benefits, it is considered that the benefits would be the same for each (note 5) and hence these are not relevant to the ranking decision.

Once the NPV of costs is calculated, it is necessary to determine what the Equivalent Annual Cost would be. This is calculated by dividing the NPV of costs by the Present Value Annuity Factor for the lifetime of the investment. This provides us with the average annual cost in present value terms.

As SM has a lower equivalent annual cost, it would be ranked higher than the HLAM project and would be selected as the project to undertake, given your assurance that they would be equally good in terms of efficiency and capacity.

Other factors to be considered include technological advancements, cash flow, and other uses for the available capital. In addition, you should not just look at the present value of the running costs but the capital invested too.

The use of project tools in project management

There are many different tools available for project management. They are particularly useful when the project involves a number of different activities and different personnel involved, as appears to be the case here. Some of the key tools include:

Work Breakdown Structure – This breaks the project down into a selection of separate, manageable activities. These can each be allocated durations and resources, (financial, human and physical), allowing you to develop budgets (using a *cost breakdown structure)*, human resource plans and equipment requirements (using a *product breakdown structure*). *Statements of Work* can also be produced to determine exactly what needs to be done for each activity. This could be done by whoever you make responsible for each particular activity.

Gantt charts and network diagrams - These are useful for planning when all of the activities will take place, given the dependencies previously determined. This will allow you to clearly see which activities are critical to ensure the project stay on track time-wise. For example, if the external suppliers cannot install the equipment until some internal building work has been completed, you will know to keep an eye on this. The Gantt chart has the added benefit of being able to track actual durations against planned.

Resource Histogram – This allows you to determine when the different members of staff will be required. I assume that they will not be full time on the project? This will allow them to see when they will be working on the project. It also allows you to determine whether there will be any staff shortages at any point in the project.

Scenario Planning – This can be used to see what the effect would be if you changed the scheduling for some of the activities for example, or the availability of some of the resources e.g. "what if the contractors were only available within these specified dates?"

Project Management Software, on the whole, contains all the necessary tools for managing a project. Online software allows different personnel to access all relevant information, and possibly update it, depending on their access rights.

There are also planning documents available to assist in planning a project, but the above-mentioned are the key tools for doing so.

Project management leadership issues

You are wise to be concerned about leadership issues, it is always a good idea to consider them in advance so that you can come up with a plan for dealing with them.

One of the things you need to consider is the role of the different people within the project team. Belbin suggests that people with different characteristics are needed in a team, so you will need a team member who picks up on all the problems, for example, but doesn't appear to offer solutions. It is important that you recognise the value of the different team members as they all play their own role.

Tuckman suggests that teams need to go through a storming phase before they can start to act as a 'normal' team. You should be prepared for this to happen, and to have your conflict resolution skills well-honed for this! Much of this 'storming' may arise as a result of the role or task allocation, especially if there is some existing rivalry between departments or between the original Grapple staff and those coming from TigerFizz. You may need to act as a negotiator on a number of occasions.

You should take into consideration that this project will lead to redundancies. You may need some sensitivity. It's possible that some members of the project team will be losing their jobs if the project is successful. Therefore, the actual selection of team members will be one of the first leadership issues faced. Should you select only those retaining their roles, especially as this will give them greater insight into the new processes?

You will encounter leadership challenges along the way, as very few projects run to time or budget. You may have to make some tough decisions, which are not appreciated by the team members. For example, if one activity is critical, there may be a requirement for the use of overtime to complete it on time. Allowing team members to participate in the decision-making processes would allow them to take partial ownership of these tough decisions and be more likely to accept them without resistance.

Remember that leadership is about motivation. You already know how to lead a team in your role here in Grapple, you should simply adapt those skills to a multi-functional project team. Communication about what is happening, when, how and who is expected to be involved can prevent many leadership issues from arising in the first place.