OPERATIONAL CASE STUDY November 2018 EXAM ANSWERS

Variant 2

These answers have been provided by CIMA for information purposes only. The answers created are indicative of a response that could be given by a good candidate. They are not to be considered exhaustive, and other appropriate relevant responses would receive credit.

CIMA will not accept challenges to these answers on the basis of academic judgement.

SECTION 1 - Strategic alliance:

Whether this alliance has the characteristics of a successful strategic alliance

A successful strategic alliance offers an opportunity for growth; the arrangement between GymFit and FitTech does indeed provide an opportunity for both parties to grow as new markets are opened up. For GymFit, the new advanced technology will potentially broaden appeal to a wider market and for FitTech, the alliance offers a first step into the Celtland market. In addition, the alliance should allow one or both of the companies involved to move into a leadership position; in this case GymFit could feasibly become larger than the current market leader, Gym4All, as the first mover to offer the unique technology and increased demand for this type of equipment. FitTech could also benefit through entry and exposure within the Celtland market and a broader international presence.

A strategic alliance has a number of critical success factors. These include a good fit between the companies and synergy which allows the companies to succeed more easily than if separate; there is synergy between a gym equipment manufacturer and a gym which is enhanced by closer working. It is also important that the overall risk of the venture should be lower than if the two companies attempted the project separately; the respective expertise in equipment and in operating gyms should help to reduce risk.

The two companies should balance each other's strengths and weaknesses; GymFit may not have the technical knowledge to develop a range of technologically advanced fitness equipment without help. Furthermore, FitTech may need to access local Celtland knowledge or the financial resources of GymFit. It is also vital that both companies are committed to co-operating; this is not clear as yet.

The alliance is more likely to succeed if respective risks and rewards are fairly apportioned and clear to both parties. It is important therefore to draw up a written agreement and this must include key terms such as any period of exclusivity whereby GymFit remain the only gym chain in Celtland to offer FitTech equipment. This alliance will be based on a revenue sharing arrangement which clearly does share the reward and provides an incentive for FitTech to ensure that they continuously deliver to meet evolving customer demands. The agreement must also detail respective responsibilities and how the parties will work together, for example to resolve issues and make decisions. A successful strategic alliance demands collaborative working: both GymFit and FitTech will need to develop this capability if it is not already evident.

The agreement should also clarify any targets. There does not appear to be a written agreement at this point, but as a key characteristic of success, this must be a high priority.

Revenue sharing

An explanation of the graph of membership income and incremental cash flow

The graph depicts the impact of membership fees (per gym per year) on incremental cash flow of each of the two options under review. The blue line (option 1) shares between 4% and 6% of GymFit's total membership income with FitTech, depending on the level of membership fees. The dashed red line (option 2) shares 30% of incremental membership income over and above the current base of C$765,000 per gym per year along with a fixed partner fee of C$18,000 per gym per year.

The two options deliver zero incremental cash flow at different levels of membership income; shown where each option crosses the X-axis. Option 1 has zero incremental cash flow at membership income levels of approximately C$840,000 per gym per year and option 2 at approximately C$825,000 membership income per gym per year. The slope of each plotted line indicates the rate of change in incremental cash flow. Option 1 has a steeper, higher change in incremental cash flow for each additional thousand C$ of revenue.

The two option lines cross at the indifference point; there is no difference in the options at this level of membership income which is approximately C$885,000 per gym per year. Below the indifference point, we would have more incremental cash flow with option 2 and above the indifference point we would be better off with option 1.

At the expected membership income levels of C$860,000 per gym per year both of the options deliver incremental cash flow and therefore have a positive impact. The higher cash flow however is delivered by option 2 at this level of income and so we would recommend this option which is 30% of our incremental membership income. The difference however at the expected overall membership income level is small.

Other factors to consider

There are a number of limitations of using this approach. It is possible that any increase in membership income at GymFit is not achieved as a result of the FitTech equipment and may be, for example, as a result of better classes or a change in pricing. This increase will be shared with FitTech in all circumstances.

The results include the estimated cost of support. This estimate could be incorrect, and this could impact the decision. Whilst the cost of support will be the same with each option, it could change the indifference or breakeven points. In addition, other cost assumptions may not hold: other fixed costs within the gym may change after a significant increase in revenue. It is possible, for example, that more fitness instructors will be needed to support the additional members.

The graph illustrates that a loss is possible with either option: we may want to develop options that have less risk. In addition, our revenue prediction is just that; if membership income exceeds C$885,000 per gym per year, the point of indifference, then Option 1 may be the better option. The decision will depend on the accuracy of our membership fee revenue estimate.

We also need to consider that this is a strategic alliance; more profit for us will mean less profit for the partner and less incentive for them to co-operate and develop the venture. Our favoured option may also present more risk for FitTech. It is important to share profits and risks fairly.

SECTION 2 - Deciding on whether to 'Fix' or 'Flex' the support contract

Using the decision tree

The decision tree maps out related outcomes and clearly expresses the overall impact in a single figure which is beneficial in guiding our decision and helping to manage risk. In this case, the decision is whether to Fix or Flex the support contract for the FitTech equipment. If the decision is taken to Fix the cost, the decision tree illustrates that we will incur a fee of C$25,000 per gym per year. If the decision is taken to Flex, the cost is not certain and will depend on two sets of events. The first of these sets considers whether the equipment usage is high or low; there is a 70% chance that usage is high and a 30% chance that usage is low. The second of these sets of events considers the level of issues. The level of equipment issues depends partially on usage; if usage is high there is a 60% chance of a high level of issues but if usage is low, there is only a 20% chance of a high level of issues.

The decision tree shows the expected value of the decision, based on joint probabilities. The expected value (EV) cost of C$23,852 represents outcome C, the weighted average of the possible 'Flex' outcomes, weighted by their respective joint probabilities. The decision tree also shows outcomes A and B; outcome A has an EV of C$27,328 where usage is high and outcome B has an expected value of C$15,744 where usage is low. The decision tree helps us to make the decision by comparing the expected value of the Fix option against the Flex option. The Flex weighted average expected value of cost is lower than the Fix option cost of C$25,000. On this basis, GymFit would choose the Flex option as the expected value of the cost per gym per year is lower; this is the approach taken by a risk neutral decision maker.

Using the probability distribution

The use of expected value to make these types of decisions is limited since it tells us nothing about the risks involved in the decision. The probability distribution shows details of the full range of Flex outcomes, including the joint probability of each specific outcome which is not visible with weighted averages such as expected value.

The joint probability of high usage and high issues is calculated as 70% x 60% which is 42%. The probability distribution shows that this is the most likely outcome with a cost of C$29,408. It is also clear from the probability distribution that there is a 42% chance of incurring a higher cost with the Flex option versus the Fix option and consequently a 58% chance of incurring a lower cost with Flex.

In this case, the risk of taking the wrong decision is relatively high. We do need to take into account GymFit's attitude to risk. If the company is risk averse, they may choose to Fix the support contract despite the higher probability (58%) of achieving a lower cost than the C$25,000 contract cost to Fix costs.

Data security and privacy consideration with FitTech equipment

Information security risks

Privacy and security risks for companies are both significant and increasing and are subject to high fines imposed by law for failure to protect data. Such risks could compromise GymFit's ability to operate the gyms.

There is also a significant risk from viruses and hackers. These are respectively deliberate attempts to introduce damage into a system or gain unauthorised access to data. An example of a virus would be the introduction of a malware through an email to a user which is activated

when the user logs into their account. A hacker may attempt to extract personal data from FitTech with the intention of committing identity fraud. Electronic eavesdropping is also a risk as FitTech data may have to travel over less secure networks; an example could be the interception of changes to users' details.

There are also risks from malfunction of FitTech's computer facilities such as their servers; this is important as the operation of the equipment may depend on reliable support from FitTech. An example of a malfunction may be non-responsive servers, effectively limiting the use of the FitTech equipment. The risk from natural disaster such as fire or flood is also important and could limit the GymFit operation.

The human error risks are also important, for example the deletion of data or failure to follow security rules.

Controls and data security measures

There are numerous and growing risks in this area. The risk from viruses and hackers can be managed via a strong security policy, regular updating of anti-virus software, firewall protection, use of ethical hackers to check for external vulnerabilities in the system and also specific standards for passwords and user names. We should also ensure that data is suitably encrypted when travelling over public networks. We should expect that FitTech have strong personnel controls which include a policy on computer use, role-based access rights and appropriate staff training.

We should also expect identification and authorisation checks to ensure that users, both in the gym and through the processing chain are both identified and authorised. In addition, we would expect robust data back-up and issue management procedures along with controls over the physical environment such as flood protection, restricted access to equipment and temperature control such as air-conditioning.

Given that GymFit's operation could be affected by failures at FitTech, we should also ensure that there are plans for business continuity should there be a significant issue. Finally, there may be an opportunity to transfer the risk, for example through an appropriate insurance policy.

SECTION 3: Corporate Governance

Whether we have appropriate NEDs

Non-executive directors fulfil an important role, attending board meetings and bringing a wider variety of experience to decisions. Typically, it is recommended that at least half of the board (excluding the chairman) should be independent non-executive directors. The guidance also suggests that there are at least two NEDs in smaller companies. We do have two NEDs and thus meet this minimum number, but the board has six members in which case we fail to have the appropriate composition as less than 50% are independent non-executive directors. We should also check whether one of the NEDs has been appointed as a 'senior independent director'. This position would serve as a contact point for shareholders should they wish to raise issues directly.

It may be possible that one of the NEDs may still have connections at FitTech which raises a question over their independence. It is vital that each NED is completely independent in order to act in the best interests of GymFit and we should therefore review the relevant NED's position and independence.

Implications for the Audit Committee

The audit committee must have the appropriate balance of skills, experience, independence and knowledge. As the committee must be independent, Executive Directors should not attend as they are not considered to be independent. The members should therefore be entirely drawn from the NEDs: It is therefore not appropriate for the CFO and the Marketing Director to attend GymFit's Audit Committee meetings.

The new venture changes the business model at GymFit and this will have implications on the experience, skills and knowledge needed by the audit committee, such as experience of working with a strategic partner or alliance or other relevant technology background. It is important to check that the composition of the audit committee remains appropriate. Whilst there is an important question over the independence of the NEDs who previously worked for FitTech, there may also be advantages from their relevant experience such as knowledge of the key operational risks.

The current membership should be increased above two NEDs given the importance of this initiative and our listed status which demands high standards of governance. Listed companies are required to have a minimum of three NEDs on their Audit Committee. The additional numbers are justified given the increased risk presented by the alliance with FitTech.

Budget for data hosting and equipment support

Responsibility Accounting

Responsibility accounting demands that managers account for the costs in their area of responsibility. Budgetary control requires a clear line between areas of responsibility, along with manager specific reporting. In order to successfully operate responsibility accounting however, costs need to be controllable. The responsible manager can thus remove any adverse variances by taking action to bring operations back under control.

In this case, FitTech are able to report actual and budgeted costs for both data hosting support and equipment support. This may not however be useful. It appears that data hosting support costs are dependent on usage, membership numbers and initial data design decisions; this cost is therefore not controllable by any one manager. There is very limited room to manage

the ongoing spend with the possible exception of the IT department who could take a pro-active role in ensuring the minimum history is held, for example by deleting non-active member history. Equipment issues however can be managed. It appears that we could see a significant reduction in equipment issues by ensuring that staff carry out the necessary preventative maintenance, have the appropriate training and check the user guide before calling an engineer out. The manager responsible for gym staff is therefore able to manage these costs to some degree.

Responsibility accounting would therefore improve budgetary control for the equipment support costs but not for data hosting support where it would be better to hold the budget centrally. We should note however that the budgets have been imposed. Responsibility accounting will be more effective when managers have been involved in the preparation of the budgets in their respective areas. The budget in addition is challenging; whilst this is consistent with responsibility accounting, the budget should also be achievable for effective control.

Motivation in participative budgeting

The budgets have been prepared by senior managers and would be imposed on the responsible managers. Budget holders are motivated by participation in the budgets for which they are accountable and therefore an imposed budget is unlikely to be motivating. Participation is more motivating because it is likely to result in a more realistic and more accurate budget but also allow budget holders to feel that their opinion is valuable. In addition, budget holders are more likely to strive to achieve a budget in which they have had a say.

The level of challenge in the budget is also an important factor in motivation. A loose, easily achievable budget is not considered motivating. A tighter, more challenging budget is optimal and motivating. However, an extremely challenging budget will not motivate as it will be very difficult to achieve and may well result in adverse variances. The current budget is considered to be challenging but may be too difficult.

We see that data hosting support may not be controllable by any one manager. It would not be motivating to be held accountable for the data hosting support cost when it can't be controlled. There may however be negative implications of a challenging budget for equipment support. A challenging budget may constrain decision making, resulting for example in delays to equipment repairs simply in order to delay costs. This would not be motivating for the responsible budget holder, any of the staff or indeed members of the gym.

SECTION 4: Sales Variances

Measures of quality

Key points and reasons for the variances

The average number of members is just favourable versus budget in the non-refit gyms. This favourable volume variance is however offset by an adverse average membership fee (price) variance in these non-refit gyms, which has created an overall adverse sales variance, albeit fairly small. The 20% student discount promotion may be responsible for both the extra volume and a falling average membership fee. It does also appear that we have seen both increased numbers of joiners and leavers; whilst the overall impact on member numbers is positive, the leavers may have been paying the full rate.

The average numbers of members in the refit gyms is both significantly higher than both non-refit gyms and the budget, creating a large favourable sales volume variance. The budget for these gyms does appear to demand higher membership numbers than non-refit gyms, which may be a reflection of the increase expected from the introduction of FitTech equipment. The average membership fee in these refit gyms is below budget though the adverse price variance is much smaller than the favourable volume variance, leaving the overall position positive with an impressive favourable variance of over C$4,000 per gym for the quarter. These refit gyms have been affected by both the 20% student discount and also the opening promotion. As these refit locations are near to local colleges and universities, volume may have benefitted most from the student offer. This may explain the larger price variances as significantly more students, given the 20% discount, would have reduced the average monthly membership fee. Once again, there may be both leavers and joiners which could have affected the average price achieved.

Repeating the student discount offer

It appears that overall the non-refit gyms are under performing the refit locations and have an adverse overall sales variance. These non-refit locations have only offered the student discount promotion, suggesting that this offer has not been effective. However, these locations may not be close to a student population. Further analysis is needed, including a check on whether the adverse overall variance in non-refit gyms is due to the promotion or other negative factors which have potentially been offset by a positive promotion. It is difficult to conclude whether we should re-run the promotion without further analysis of the reasons for the variances in both sets of gyms. The available results however suggest that results are mixed, and any repeat promotion may need to be location specific.

Further information required

It would be very useful to see the sales results by week in both refit and non-refit locations in order to establish the impact of each of the two promotions, given the separate timing. It would also be useful to see results by location for the new gyms to see if the pattern was consistent; there may be a single location which skews the overall refit average. In addition, we could analyse the performance of the non-refit gyms between locations close to colleges or universities and those which are not. This would help to establish whether there is a different pattern at locations close to colleges versus the pattern in locations less affected by student population. Similarly, we need to analyse the results of volumes and fees achieved for both full and student members as they are likely to show a significant difference based on the impact of the student discount. It would be useful in addition to analyse the leavers to check if

this appears to be related to a successful recruitment drive and also to see if this is partially responsible for the drop in average membership fee. Finally, it would be useful to review the net results for all refit gyms, after sharing a portion of revenue.

Exchange rate fluctuations

The accounting requirements of IAS21: The effects of changes in foreign exchange rates

Our functional currency is the C$ and thus we would translate any transactions into C$.

Connection1: The invoices from FitTech will be initially recognised at the spot exchange rate prevailing on the date of the transaction; the charge to profit or loss will therefore initially be based at this rate. The use of an average rate is not appropriate when rates are changing significantly. At the end of the period, in this case the year to December 2018, any unsettled transactions due to FitTech will be translated at the prevailing spot rate at the end of the period. When the invoice is settled, the amount will be translated once again at the spot exchange rate on the date of settlement. Any differences in the rate between the transaction date, the period end date and then the settlement date will result in an exchange difference which should be posted to profit or loss. These differences will recur due to the recurring nature of these fees. The size of the exchange gains or losses will depend on the scale of the movement in the exchange rate. If significant, it may be possible to arrange to pay FitTech in another currency or in C$.

Connection 2: Whilst the computer equipment is a non-monetary item, the payment due for the equipment is a monetary item and will be settled using a foreign currency. The balance due should be re-translated at the spot rate at the end of the period to December 2018 and also re-translated at settlement; the treatment will be the same as the FitTech invoices. The computer equipment will be held in the financial statements at historic cost based on the spot rate prevailing on the date of the transaction: This is not a monetary item and it will not therefore change in response to subsequent changes in the exchange rate. Related depreciation charges will also be based on the spot rate at the date of initial recognition of the computer equipment.