



Strategic Level Paper

## E3 - Enterprise Strategy

### November 2013 Examination

#### Examiner's Answers

*Some of the answers that follow in Sections A and B are fuller and more comprehensive than would be expected from a well-prepared candidate. They have been written in this way to aid teaching, study and revision for tutors and candidates alike.*

These Examiner's answers should be reviewed alongside the question paper for this examination which is now available on the CIMA website at [www.cimaglobal.com/e3papers](http://www.cimaglobal.com/e3papers)

The Post Exam Guide for this examination, which includes the marking guide for each question, will be published on the CIMA website by early February at [www.cimaglobal.com/e3PEGS](http://www.cimaglobal.com/e3PEGS)

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#### SECTION A

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##### Answer to Question One

Rationale
<p>This question examines learning outcomes from across the syllabus. Requirement (a) examines learning outcome A2(b) 'evaluate the strategic and competitive impact of information systems' and is designed to test candidates' understanding of the importance of effective Information Systems in delivering the Games. Requirement (b)(i) examines learning outcome D1(a) 'recommend appropriate control measures' and is designed to test candidates' understanding of the project management environment. Requirement (b)(ii) examines learning outcome D1(a) 'recommend appropriate control measures' and is designed to test candidates' understanding of effective control within the project management environment. Requirements (c)(i) and (c)(ii) examine learning outcome C1(b) 'evaluate strategic options' and are designed to test candidates' knowledge and understanding of the complexities of supplier choice and management within a project environment.</p>

### **Suggested approach**

For requirement (a) candidates are expected to recognise the strategic significance of the Games Information Systems (IS) strategy on the overall successful delivery of the Games. Therefore candidates should consider the main areas of impact that an effective information system would have in the successful delivery of the Games, including project management, customers, communication and other stakeholders.

For requirement (b)(i) candidates should consider both aspects of the question requirement: planning and managing. Candidates are also expected to recognise the impact of the flexible nature of the project environment of the Velodrome project and build this into their answer.

For requirement (b)(ii) candidates should base their answer upon the three critical aspects of project control as outlined by GAMESCO in the unseen material. It is important that all recommendations are fully justified.

For requirement (c)(i) candidates should use the project constraints as listed in the question requirement to evaluate Supplier A and Supplier B. It is important that answers should focus upon an evaluation of the relative performance of the two suppliers against the key project criteria and must not merely re-state the information provided in the scenario.

For requirement (c)(ii) candidates answers should focus only upon the constraint of cost. Candidates are expected to provide some numerical analysis but this is only to support their discussions of the difficulties of evaluating project costs.

### ***Requirement (a)***

The Information Systems strategy should be concerned with aligning the IS development with the needs of the whole Games. It is important to have an effective IS strategy for the Games as the information systems used must support the overall successful delivery of the Games. The IS strategy should have been developed alongside the overall Games strategy as the two will be directly linked. Without an effective IS strategy, the Games are less likely to be successfully managed, co-ordinated and communicated. As Country C and GAMESCO have the ultimate deadline of delivering the Games in October 2015, there is no room for slippage or cost over-runs. Therefore it is imperative that the IS strategy monitors and reports on all aspects of the Games so that GAMESCO can deliver the Games on time and on budget.

The IS strategy needs to identify what information is required, and by whom, in order to maintain the ability to monitor and communicate progress and to identify all aspects of each of the many construction projects within the overall project of delivery of the Games.

An IS strategy for the Games would involve identifying what information is needed by the Games organisers, staff and key markets to enable GAMESCO to meet its overall objectives. This will include consideration of the information which would be needed at strategic, tactical and operational levels of the project. The IS strategy for the Games must be focused upon the delivery of the key information requirements of the organisers, project teams and external clients and it should help these users to increase their productivity and assist in the optimum delivery of the Games.

An effective Games information system strategy would focus upon the following key areas:

### **Project reporting and management**

The successful delivery of the Games is reliant upon the successful delivery of the main construction projects which will make up the Games. These projects will need to ensure successful delivery against the project constraints of time, cost and quality. An effective IS strategy should ensure that all of the projects have effective project reporting and management systems which provide thorough and regular feedback to the project teams. In addition, effective Information Systems should integrate this information from projects to allow the overall progress of the project to be monitored by the organisers and key stakeholders. Therefore an effective Information System strategy will ensure that stakeholders are provided with key project progress information.

### **Customer Information and e-commerce**

There has been some criticism of previous Games by customers in that information was not correct, in particular there were weaknesses in previous Games websites. An effective Information System strategy for the Games should recognise the critical importance of the website to the successful delivery of the Games, both as an informational tool and also as an e-commerce tool. Clearly this was not the case in the past. The website for the Games should be an integral part of the overall successful delivery, both in terms of advertising and a key communication tool throughout the region and the wider public but also as an e-commerce tool to sell tickets and merchandise. An effective Information Systems strategy will build in the need for effective communication and e-commerce, using the website within the overall Games strategy.

### **Stakeholder expectations**

Effective information systems will be expected by key stakeholders. It is likely that stakeholders such as customers, ticket agents, television companies and advertising partners will expect the Games to operate an effective website. Therefore development of an effective information systems strategy will satisfy the expectations of key stakeholders and encourage greater acceptance and satisfaction with the Games.

### **Summary**

In summary, the Information System will help the GAMESCO management team deliver the Games. If the Information System does not provide the information required to the many users in the right format at the right time, it will have an adverse impact on the delivery of the Games. Therefore, as many organisations recognise, the Information System strategy is key to the success, or the failure, of the organisation. GAMESCO must ensure that the Information System will support the management team and enable it to make the right decisions based on accurate and timely information.

### *Requirement (b)(i)*

The flexible project management environment of the Velodrome project brings with it a number of key challenges for the Velodrome Project Manager. The need for flexibility normally arises from the need to remain adaptive when operating in a volatile or fast moving external environment. Also, the working practices within the Velodrome project environment, where high levels of collaboration are needed between internal project staff and external partners who come in and out the project at different times, requires a high degree of flexible project planning and management arrangements.

### **Planning**

Effective project planning in this environment is critical as there will be no scope for slippage in time, in particular, as there is an unmoveable project deadline. Planning the deliverables of the many external contractors will be highly complex as their activities will need to integrate and logically follow on from each other. However, getting external contractors to fit in with the overall plan will be difficult and costly. To avoid this potential loss of control, it will require careful and detailed project planning and contract negotiations.

Time planning and initial budget planning are critical and it will be important for the Project Manager to co-ordinate and communicate closely with external contractors prior to commencement of the project. It is likely that there will be a complex arrangement of staff from internal and external sources. Planning for and integrating these staff to co-ordinate effectively for overall delivery will be a key task of the Project Manager. Planning will require a degree of flexibility and contingency and it is likely that within the initial planning stage a number of key risk factors to the project will need to be identified and evaluated. Project planning is likely to be one of the most important stages of the Velodrome project in order to assess the degree of flexibility required, to identify the risks and determine a range of appropriate controls prior to the commencement of the project.

A further challenge to the Project Manager lies in forecasting the timing of the peaks of the project and ensuring that there is available experienced staff from the 'pool of non-project specific' people, or indeed borrowing certain people from other projects, when they are required. For example, during the delivery of the wood for the track and during the installation period of the track, the Project Manager may want a large team of quality control supervisors to ensure that the wood is correctly prepared before the track is laid and that the boards are laid correctly. Involving a team of quality control people during the process should ensure that problems do not occur at a later date. The Project Manager will need to plan the timing and manpower requirements and 'book' this quality control expertise at an

early stage to secure the necessary resources. However, if project timing slips, then the required manpower may not be available. It is imperative that project planning and manpower resource planning is continually updated to ensure availability of resources when they are required.

### **Managing**

There are likely to be complex staff relationships both internally and externally. A culture which encourages collaboration and participation is therefore needed. Regular and detailed communication internally and externally is vital to ensure that all parties have all of the relevant information they need to operate effectively. The cultural challenges are likely to be significant, as the Project Manager will have to manage a number of different project team members from differing backgrounds and experience all working together towards one common project objective.

It may be necessary to have more people allocated to the project as a core team, so as to overcome small peaks and troughs due to the strict deadline for project delivery. The project cannot be 'lean' in manpower terms as this would probably result in delays. There is no room for slippage. There is also a need to communicate with staff joining and leaving the project to make sure that relevant information has been recorded and understood by all, in order to reduce the chance of error and omissions or duplication of work. The project plan needs to be communicated to employees on a very regular basis; often a meeting at the start of each day.

To instil this common objective into such a diverse range of team members is likely to be a significant challenge for the Project Manager. However, regular team briefings and regular communication should help to overcome this and build team spirit. Team building events prior to commencement of the project may assist in more effective project management later in the life of the project. As this is such a high profile project, it is likely that motivation levels will be high and the key participants will be focused upon the successful delivery of the project. The Project Manager must instil this within the team throughout its life.

### *Requirement (b)(ii)*

Controls are normally focused upon the three critical project constraints of time, quality and cost.

#### **Time**

- The progress of the project towards meeting its completion deadline of the 31st of May 2015 must be managed and controlled effectively and frequently. The main control methods of achieving this would be to undertake regular project progress reporting. Initially the Project Manager will undertake critical path analysis and set key milestones for the achievement of the project. These milestones and critical path activities will then be monitored by the team on a regular basis to ensure that these are being reached.
- Regular project status review meetings with key project staff, both internally and externally, should be held, either weekly or monthly. This ensures that a constant review of progress towards achieving deadlines is being undertaken and that any slippages in time are being monitored and controlled regularly.
- To ensure on time delivery, the Project Manager needs to prepare and update the critical path for the construction of the Velodrome and identify key dates on the critical path.
- It is recommended that the project plan should be updated every day so that everyone involved with the project has access to the latest data, such as the contract with supplier X was placed on xx date or that contract variation number was agreed with supplier Y on xx date. All contract variations should be signed off by the Project Manager, as even minor changes with suppliers could have a knock-on effect on delivery dates or costs.
- There should be a dedicated manager controlling the critical path and updating the project plan for events that occur and identifying events that have not yet occurred which could adversely impact future critical dates. By having a dedicated manager to monitor the critical path closely this will reduce the risk of late delivery.

## Quality

- Material inspections should be carried out regularly and frequently to ensure that substandard materials are eliminated and replaced as soon as delivery takes place. The project is working to a tight deadline so re-works are unlikely to be feasible. A 'right first time' approach in terms of quality management must be at the forefront of project development of the Velodrome project.
- Monthly reviews should also be supplemented by 'Deep Dive' quality assurance reviews. These will be scheduled to review the project once every six months, although for a high profile project such as the Velodrome, additional reviews may be held. These reviews will involve government, GAMESCO and delivery partner executives, and the relevant project teams.
- It may be suitable to have a quality control manager who is a 'floating' project member and not dedicated to the project. This manager would be responsible for visiting suppliers and outsourced contractors before contracts are placed to assess whether the supplier has the capability of delivering to the proposed contract specifications. Preventative inspection before placement of contracts and further inspection during the manufacturing process (such as the manufacture of the wood for the track) would save time, which is critical, and will hopefully prevent poor quality work or materials being used on the Velodrome project.

## Cost

- Due to the level of expenditure expected to be incurred by the Velodrome project it is recommended that there should be a dedicated accountant as part of the project team to monitor costs in order to alert the Project Manager to potential cost over-runs. It is recommended that all purchase orders for equipment, outsourced suppliers and all other contracts should be counter signed by the project accountant before orders are placed to ensure that costs are controlled before they are incurred.
- The Velodrome project has a budget of C\$50 million. An initial project Anticipated Final Cost (AFC) needs to be set up to manage this budget and must be reviewed regularly.
- The Original Budget must be allocated to each cost centre as the starting point for all cost reporting.  
These are likely to comprise the following:
  - construction contracts
  - design contracts
  - project management and assurance costs
  - project contingency
- A Cost Report will need to be provided on a weekly/ monthly basis against the original budget cost reports. For each contract/line item the report should identify:
  - budget
  - forecast price (based on anticipated variation to contracts plus an assessment of risk); and
  - actual cost to date and forecast cost to completion.
- Trend reviews could be held to investigate delivery cost pressures and identify ways they may be mitigated. These meetings should involve project teams, delivery partner staff and sponsors. Trends reviews will ensure that senior management can quickly focus on the issues which are most likely to mitigate cost pressure.
- Quarterly Funders AFC. Every quarter, a report to funders should be presented which includes the project's current forecast of the AFC.

Requirement (c)(i)

Project Constraint	Supplier A	Supplier B	Evaluation against project constraints
<b>Time</b>	<p>1<sup>st</sup> week of November 2014 delivery.</p> <p>Installation of 4 weeks which is 1 week longer than Supplier B, but if completed on schedule should allow for the final project completion date to be met.</p> <p>However, there is a high potential risk that any delay to this delivery date could mean that installation gets put back by 4 weeks (to the first week of Dec 2014) which would mean the track would not be in place for the required 6 months for acclimatisation in order to meet the project deadline of 31<sup>st</sup> May 2015. This is a major risk to the project.</p>	<p>1<sup>st</sup> November 2014 delivery.</p> <p>Installation of 3 weeks.</p> <p>Supplier B's schedule, if met, will mean that the project will meet the deadline for installation of the track boards 6 months prior to the Velodrome opening.</p>	<p>There is a clear potential risk of Supplier A not delivering on time resulting in the velodrome not being ready for May 31<sup>st</sup> 2015</p> <p>Supplier A is therefore a high risk unless it can provide a guaranteed delivery date. The timing of this project is the critical project constraint and therefore any delay in any of the components could severely risk the final delivery of the overall project. This must be the major consideration for Z as it is clearly the critical project target as set by GAMESCO.</p>
<b>Quality</b>	<p>Supplier A has not undertaken work on this scale before but it does have a high reputation for quality in Country C.</p> <p>The track boards only have a 10 year estimate life cycle. This is 33% less than Supplier B (15 years).</p> <p>Supplier A does not provide its own maintenance facility so it cannot guarantee long term quality management.</p>	<p>Supplier B has a proven track record in previous Games velodrome developments.</p> <p>Supplier B provides a guaranteed life cycle of 15 years with regular maintenance provided.</p>	<p>The quality of the track boards is a critical aspect of the Velodrome construction as the racing surface is the key component of the Velodrome facility.</p> <p>Therefore, Supplier B would be preferable as it also provides a long-term maintenance facility and has a proven track record of quality delivery.</p>
<b>Sustain-ability</b>	<p>Supplier A is based within the region where the Games are being held. Therefore, it is not likely to emit high levels of emissions in transportation of the materials.</p> <p>However, no information is given about production methods or technologies,</p>	<p>Supplier B ships raw materials over long distances and then air transports to their final destination. All of this is likely to result in high levels of carbon emissions.</p> <p>However, Supplier B does undertake carbon off-setting with reforestation,</p>	<p>More information is needed from Supplier A on its production and transportation methods as they may not be sustainable.</p> <p>Supplier B likely to be preferable due to its clear sustainability activities and its quality standards.</p>

	which could in themselves be harmful and dangerous.	so it appears to be an organisation which takes its sustainability responsibilities very seriously, which is a key consideration of the Government.	
<b>Locality</b>	Supplier A is based in Country C. The installation team used would also be from Country C. This is likely to be encouraged by the Government of Country C as it is keen to use local suppliers within the Games projects.	Supplier B is based in another region of the world and uses its own installation team. No local staff will be used. It is known that the Government of Country C is keen to use local staff and suppliers and therefore it is likely to be less favourable towards Supplier B.	Supplier A is preferable from the point of view of the Government due to its location and the fact that the Government is encouraging optimisation of local suppliers and staff. However, this is not likely to be a major deciding factor for the Project Manager as the other project factors are more critical to the successful delivery of the project.

#### *Requirement (c)(ii)*

The evaluation of the costs of the track boards for each supplier is likely to be complex. Although the cost of the track boards including installation is estimated to be only 5% of the overall cost of the project, cost is one of the key project targets as set by GAMESCO. Any mistakes made in choosing the supplier could have serious consequences on the final delivery of the project and upon the overall quality of the project. Therefore the cost of the track boards must also be evaluated in terms of both quality and timing considerations.

The cost quoted by supplier A is C\$2 million plus an additional \$0.5 million installation cost. The total cost associated with using Supplier A is therefore C\$2.5 million. On a pure cost basis, the Project Manager would consider this as acceptable as it meets the 5% estimate of the total budget for the Velodrome. However, the evaluation of supplier A would be far more complex than the mere evaluation of the total cost itself. The total cost of C\$2.5 million is significantly lower than Supplier B but this tender would mean two suppliers to be managed which could bring higher risks to cost control and cost management of the project, let alone the risk of delays and slippage.

The cost of supplier B is C\$3.0 million, possibly rising to C\$3.12 million, should Supplier B's costs increase by 4%, as happened in the previous Games. Both of these costs exceed 5% of the budget for the Velodrome. However, the project is likely to have contingent funds which would cover this difference but it would need to be closely managed by the Project Manager. Importantly, this cost needs to be evaluated alongside the other key project targets of timing and quality of the track boards supplied by Supplier B.

The Project Manager may also consider using an average annual cost approach to evaluate the costs of each supplier. For Supplier A, the average annual cost would be C\$250,000 per year for the 10 year life of the track board installed. For Supplier B there would be an average annual cost over the 15 year life of the track boards of C\$200,000, which is 20% lower than Supplier A on an annual basis. However, the Project Manager should also consider the risk that Supplier B could again potentially exceed the estimated cost by 4%. This would result in a total cost of C\$3.12 million and therefore an annual average cost of C\$208,000. However, this is still lower than Supplier A's annual average cost.

However, it must be recognised that average annual cost is a simplistic method of evaluation and in theory it would be better to evaluate the quotations from the suppliers based on their NPV's and then on their equivalent annual costs. The scenario does not enable such an analysis as the cost of capital for the project (or for the Games as a whole) is not provided.

A further complexity of evaluating the project costs is that the Project Manager must also consider the legacy of the Velodrome. and the Project Manager must therefore also take into consideration the on-going maintenance costs of the Velodrome to provide for its continued use after the Games.

For Supplier A, if the maintenance costs are taken into account, then the average annual undiscounted cost is C\$370,000 based on maintenance costs supplied annually by Supplier B at C\$120,000 per year for 10 years. For supplier B, assuming a 4% over-run on the quotation, the average annual undiscounted cost is \$288,000 based on maintenance costs supplied annually by Supplier B at C\$80,000 per year for 15 years. Therefore Supplier B is still cheaper than Supplier A, based on an annual average cost basis. However, again this is a simplistic analysis as it does not take into account the discounted on-going costs. The Project Manager would have to take into account other variables such as the management of the maintenance contracts and other potential unforeseen on-going costs.

In summary, there are a number of complexities in evaluating the cost of the project. However, it must be noted that the evaluation of the cost should only be considered in the context of the other two key project targets. To make a decision upon the suppliers based upon cost alone would ignore the fact that in terms of this specific project, cost is of lesser importance than ensuring the Velodrome is delivered on time and is entirely fit for purpose.

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## SECTION B

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### Answer to Question Two

#### Rationale

This question examines Section D of the syllabus. Requirement (a) examines learning outcome D1(c) 'recommend solutions to problems in performance measurement' and is designed to test candidates' understanding of alternative performance measures. Requirement (b) also examines learning outcome D1(c) and is designed to test candidates' understanding of the difficulties of linking rewards to divisional performance. Requirement (c) examines learning outcome D1(c) and is designed to test candidates' understanding of ROI and RI as performance measures.

#### Suggested approach

For requirement (a) candidates are required to demonstrate their knowledge and understanding of Shareholder Value Analysis (SVA). Candidates should focus their answers upon the benefits of SVA to XXA.

For requirement (b) candidates are required to demonstrate an understanding of the problems of divisional performance evaluation. In particular, answers should focus upon how the linking of a divisional bonus system to divisional performance may cause problems for XXA.

For requirement (c) candidates are required to calculate a ROI and RI for two example investment decisions. This should be a straightforward aspect of the question. Candidates are then expected to evaluate these results and use them in support of a discussion on the benefits and problems of ROI and RI.

#### Requirement (a)

The current performance measure used by XXA is Shareholder Value Analysis (SVA).

Shareholder value is a term that suggests that the decisive measure of a company's success is how much it increases the value of its shares to its shareholders. Shareholders only recognise the benefits of future cash flows. Therefore NPV analysis, which calculates the discounted value of future cash flows and compares this with the initial investment based on a suitable risk adjusted cost of capital, will help ensure that the focus of investment is such that only projects providing a positive NPV are approved.

Essentially, shareholders' funds should be used to earn a higher return than could be earned by investing in the next best alternative with the same or very similar level of risk. The basic rule of SVA is that a company adds value for its shareholders only when equity returns exceed equity costs. When that value has been calculated, the company can take steps to improve its performance and also use SVA to measure the success of those actions.

The principle is that the management of any company should first and foremost consider how the interests of its shareholders will be affected by any decisions it takes.

However, there is no agreed way of determining how to calculate SVA. Therefore, before deciding to implement it, the Board must first define how it intends to calculate SVA and what it should include, and follow this consistently.

#### Benefits of SVA to XXA

- SVA holds that the Board of XXA should first and foremost consider the interests of shareholders in its business decisions.

- SVA takes a long-term view and is about measuring and managing cash flows over time. It would provide XXA with a clear understanding of value creation or degradation over time within each business unit.
- SVA offers a common approach, which is not subject to the particular accounting policies that are adopted. It is therefore globally applicable and can be used across most sectors.
- SVA will force XXA to focus on the future and its customers, with specific attention to the value of future cash flows.
- SVA can set a minimum time period for discounted cashflows to payback an investment in order to minimise the risks of not forecasting future cashflows accurately.

However, shareholder value does not take into account societal needs. Shareholder value financially benefits only the owners of a business; it does not provide a clear measure of social factors such as employment, environmental issues, or ethical business practices. Therefore, a management decision can maximize shareholder value while adversely affecting third parties, including other companies.

### *Requirement (b)*

Should XXA decide to establish four divisions and link managerial performance to divisional performance, this could result in lack of goal congruence, if divisional directors work towards optimising the results of their own division, which could be to the detriment of XXA as a whole. Sub-optimisation can occur when managers take actions to improve the divisional situation at the expense of XXA. For example, divisional managers may undertake short-term actions in order to improve short-run divisional performance at the expense of the long-term opportunities and development of the whole businesses.

Divisional directors of XXA may be incentivised towards dysfunctional decision making if rewards are based on short-term divisional profits. The effect of this is that directors will take decisions that will enable them to achieve bonuses that may not be in the long-term interest of their division. Furthermore, even if the division's interests are fully considered, it may not be in the overall company's interest. This may discourage XXA's divisional managers from making the decision to invest, particularly where the benefits may not materialise quickly.

Divisions within XXA may be different sizes, with different levels of revenues and differing risk profiles. Therefore using a standard cost of capital of 15% (pre-tax) may need to be adjusted to reflect the risk profile of the division or the individual investment. A large investment with long-term cash flows that is expected to produce a positive net present value is usually considered to be more risky than a small investment with short-term cash flows that also produces a positive net present value. Generally speaking, the longer the term of the payback period, the more risky is the project due to uncertainty about the future cash flows. For large scale investments, to use a standard cost of capital which ignores the specific risks relating to different projects is naïve and too simplistic, particularly in today's changing and fiercely competitive marketplace. A standard cost of capital may be appropriate for small scale investments which do not have a large impact on the overall weighted average cost of capital of the company.

Another factor to be considered is that XXA as a whole may not be able to afford to provide the finance to undertake all investment proposals. It is usual to review all positive NPV projects and then make a decision on which projects should be approved, due to the absolute limit on capital funding, a process referred to as capital rationing. Perhaps projects under a specified value could be approved by divisional directors, whereas larger investment projects would need central authorisation from the Board or J. After all, XXA has not got access to unlimited investment funds.

A further criticism of basing rewards on divisional performance is the potential stress that the divisional directors may feel if their remuneration is based upon performance. This may encourage them to make decisions with which they are unhappy, resulting in increased stress.

### Requirement (c)

	Investment 1 Q\$	Investment 2 Q\$
Original Investment cost	2,000,000	5,000,000
Controllable profit	400,000	450,000
<b><u>ROI (Controllable Profit / Original Investment cost)</u></b>	20%	9%
Expected Divisional ROI	22%	8%
Current cost of capital for XXA	15%	15%
Divisional director's likely motivation based on divisional ROI	Reject	Accept
Goal congruent motivation of the divisional director as desired by XXA based on the NPV of the investment	Accept	Reject

### **Residual Income**

Investment cost	2,000,000	5,000,000
Controllable profit	400,000	450,000
Cost of capital charge (15% of investment cost)	300,000	750,000
Residual Income	100,000	(300,000)
Divisional director's likely motivation based on divisional RI	Accept	Reject
Goal congruent motivation of the divisional director as desired by XXA based on the NPV of the investment	Accept	Reject

For XXA, if ROI had been used as a measure of divisional performance, then the divisional directors may have made the wrong decisions in rejecting Investment 1 and accepting Investment 2. This is because for Investment 1, the proposal would have impacted negatively upon the divisional return as, at 20%, it would have the effect of reducing the divisional ROI below the current level of 22%. However, the current organisational cost of capital stands at 15%, so the goal congruent decision would have been to accept the proposal which was the decision actually taken by XXA based on its positive NPV.

Likewise, for Investment 2, the divisional manager would have accepted this proposal as the divisional ROI would have increased as the proposal earns 1% above the current divisional ROI of 8%. However, the return of the proposal fell short of the current cost of capital of the organisation and the goal congruent decision would have been to reject the proposal which was the actual decision reached by XXA based on its negative NPV.

### **Merits of ROI as a divisional performance measure**

- It is widely used and accepted in practice. However, this does not mean that it should be used by XXA if better alternatives are available.

- A minimum company-wide ROI can be set for an organisation as a benchmark for project evaluation. This would be a useful measure for an organisation such as XXA with only 4 potential divisions.
- As a relative measure, it allows for easy comparison of divisional performance and therefore offers an easily understood control measure for the directors of XXA.
- As it is based upon capital employed, it encourages divisional managers to reduce or to optimise the level and usage of assets such as divesting obsolete equipment and excessive use of capital employed. This results in greater efficiencies and less wastage, which for an organisation such as XXA, where competition is likely to be high and customers price sensitive, then minimising excessive investment costs to retain profit margins and competitive prices will be paramount.

### **Disadvantages of using ROI as a divisional performance measure**

- As can be seen from the calculations above for XXA, it can lead to dysfunctional decision making, which is likely to be to the detriment of XXA as a whole.
- Due to differing asset replacement approaches used, it could make comparisons difficult and ROI also may increase with the age of assets. Therefore if one division in XXA operates with older assets than another then its ROI may look superior, but in fact it may well be operating with worn out and old assets which are not efficient and may result in expensive replacements further down the line.
- ROI can be a disincentive to invest. A divisional manager will not choose to invest in a proposal which may reduce his or her own ROI but in fact would increase organisational ROI (see above).
- ROI can be calculated in a number of ways, which can lead to different decisions. In XXA, ROI was calculated on the basis of original investment but the commonly used approach would be to use an average investment. For example, for Investment 1, ROI based upon an average investment would have been 40% which would have resulted in the divisional director making a goal congruent decision.

### **Merits of RI as a divisional performance measure**

- It overcomes the potential problems of under-investing discussed in ROI above.
- It makes it quite clear to the divisional managers of XXA what the financing costs of projects are.
- As can be seen from the example above, RI is more consistent with the objective of trying to maximise the total profitability of the organisation and not the individual divisions. This would seem to be something that the current Board, as a centralised organisation, would be keen to ensure continues.
- Residual income is more flexible as the cost of capital applied to different projects can be adjusted to reflect the appropriate level of risk associated with them.

### **Disadvantages of using RI as a divisional performance measure**

- It is an absolute measure which means that it is difficult to compare the performance of divisions of differing sizes. For example, one division may be much larger than the others and may therefore be viewed as having superior performance. This may cause resentment between the divisional directors.
- RI does not take into consideration the relative size and cost of the investment to the organisation.

In summary, ROI's biggest shortcoming is that it ignores the cost of finance entirely. Furthermore, the overall ROI of a division will increase over time simply because of the depreciated value of the cumulative assets. RI's significant disadvantage is that it ignores the length of time in which future cash flows from a project will arise and the relative size of the investment. There is no gauge on the length of payback or discounted payback. From the perspective of XXA, both methods are simplistic and contain flaws.

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### Answer to Question Three

#### Rationale

This question examines Sections A and C of the syllabus. Requirement(a) examines learning outcome C2(c) '*produce an organisation's value chain*' and is designed to test candidates' ability to apply the value chain to a scenario context. Requirement (b) examines learning outcome A2(b) '*evaluate the strategic and competitive impact of information systems* and is designed to test candidates' understanding of the use and benefits of databases and data warehouses. Requirement (c) examines learning outcome A1(e) '*recommend how to interact with suppliers and customers*'.

#### Suggested approach

For requirement (a) candidates are required to evaluate the primary activities of VVT, using Porter's Value Chain model. This should be a straightforward question, requiring candidates to analyse the scenario information and evaluate those aspects which are relevant to VVT's value chain.

For requirement (b) candidates are required to demonstrate their knowledge and understanding of data warehousing and data mining in relation to VVT. This should be a straightforward question but importantly any benefits of data warehousing and data mining must be directly related to VVT.

For requirement (c) candidates must evaluate the current supply chain activities identified in the scenario material and then recommend improvements to these. Therefore it is important that any recommendation made is fully justified in relation to the weakness identified in the supply chain. This should be a straightforward question as there are several possible examples of weakness which can be identified from the scenario information provided.

#### Requirement (a)

INBOUND LOGISTICS	OPERATIONS	OUTBOUND LOGISTICS	MARKETING AND SALES	SERVICE
Rigorous Quality inspection of all goods delivered by MMM.	VVT logo used to re-brand all products received from MMM.	VVT offers in-home set up by trained technicians.	National advertising in the newspapers.	In-home technical installation and support at a small charge.
Fully configured products delivered to the warehouse.	VVT re-packages products in own designed packaging.	Customers can talk to trained technicians at point of sale to ensure that they order the product that suits their needs.	Website promotes its range of products and allows for web-based enquiries.	Back to warehouse repair support for out of warranty products.
			High inventory held in the warehouses to ensure customers can take quick delivery of products.	Dedicated phone line to assist with customer queries and questions when ordering.
High inventory held in the warehouses to ensure products are available to customers.			Direct mail from customer database used encouraging brand loyalty.	

**Inbound logistics:**

Rigorous quality inspections undertaken by VVT results in 100% defect-free products. This is likely to be very important to customers who will have expectations of reliability and quality for pre-configured equipment. This should help to increase customer satisfaction levels and also reduce service costs for VVT.

High stocks held will mean that VVT's customers will benefit from immediate delivery and not have to wait for products to be shipped. This again should increase customer satisfaction levels. However, this is likely to add significant costs to VVT in terms of stock holding and warehousing costs, to a large extent due to MMM's inadequacies.

**Operations:**

This is a relatively small aspect of VVT's business activities, as it merely rebrands the products with its own logo and places them into its own designed packaging. No further additions or configurations take place. Therefore, within operations, VVT adds little value to the customer.

**Outbound logistics:**

Trained VVT technicians are used to installing some systems within customers' homes. With complex technology this is likely to be highly valued by customers. Also trained technicians are used at the point of sale to assist customers in buying the most suitable products. It would appear that VVT's competitors do not offer the same level of support and assistance to customers. This service helps VVT's customers make informed choices of products and is more likely to secure a sale and a satisfied customer. This is also highly valued by the customers.

**Marketing and Sales:**

Direct marketing to existing customers makes customers feel wanted and valued and encourages loyalty.

The limited use of the website in terms of product ordering and payments is a key weakness of the primary activities and is likely to need significant development if VVT wishes to grow the business. Although it adds value in terms of providing an information source to customers, it could be exploited more usefully by VVT to add value to the business. VVT does use its customer database to undertake direct marketing which could be of value if it is used specifically to target particular customers and particular products.

Dedicated phone lines for customers' queries and the ability to talk to trained technicians ensures that VVT offers a high quality of customer service and a positive experience for customers. This adds value as it provides a service which customers recognise as important in the selection and subsequent order for VVT products.

High inventory levels ensure that customers can obtain any product that is advertised or is shown on VVT's website without a long delay from order to delivery. The ability of VVT to meet customer orders is an important added value activity.

National advertising takes place through national newspapers, although this is unlikely to add significant value as VVT's main competitors are also likely to undertake a similar form of advertising.

**Service:**

These are key 'added value' activities that many of VVT's larger competitors do not offer and these services may play an important role in customers' decisions to buy VVT's products.

The home installation service is clearly a huge help to customers who buy complex products from VVT. This service may make the difference between a dissatisfied customer if the customer had set up the product himself, perhaps incorrectly, and a satisfied customer with a correctly set up product. This adds value as the product can be used quickly and correctly by the customer gaining improved levels of customer satisfaction. This is likely to lead to further orders of other VVT products or recommendations benefitting VVT.

The technicians' visits to homes to sort out problems for warranty products is clearly more appealing to customers than being required to take the faulty product into a VVT shop. Even though this service

costs VVT money to provide, it is another unique selling point which appeals to customers and differentiates VVT from its competitors and therefore adds value.

Warehouse based repairs are a good solution for customers with products out of the warranty period, as a minor repair may only be required. This service prevents customers having to buy a new product at a far greater cost if it can be repaired in the factory. This encourages brand loyalty and adds value to the customers' experience with VVT.

Feedback indicates that the services offered by VVT are highly valued by its customers. Its larger competitors cannot offer a similar level of customer service which is therefore a key source of competitive advantage for VVT. This must be retained and developed as much as possible, even if the business grows.

### *Requirement (b)*

Currently VVT uses its customer database purely as an information source to undertake direct mailing activities. However, if VVT were to use it more as a data warehouse, it may benefit significantly.

A data warehouse is a subject based, integrated collection of data that helps management in its decision making process. It collects information from various sources, both internal and external to the organisation, and makes it available to the end-users in an understandable and usable format to assist them in decision making.

VVT could benefit from using its customer database more effectively in the following ways:

- A data warehouse would enable VVT's managers to make comparisons between different factors within its database. For example, have customers buying habits changed over a number of years? Comparisons of sales in particular areas or age groups for specific products could be made. This would allow VVT to understand potential areas of growth and development or areas where products are less popular than they were previously. This could assist VVT with stock management and ensuring the correct products are available.
- A key benefit of using a data warehouse is the ability to undertake data mining. This involves using advanced analytical tools to discover useful relationships in databases. Data mining turns data into information for decision making. For example, the sales records of a particular model of television might indicate a correlation with a particular age group or location of buyer which could assist VVT in directing its advertising more effectively.
- Data mining might also assist VVT with identifying associations, such as computers being bought at the same time as printers or sequences such as the purchase of a television often results in the later purchase of speaker systems. This will then allow VVT to predict potential customer buying behaviour patterns and allow VVT to be more responsive to customer needs.
- If the database is linked to the website, then VVT could exploit this by using direct e-mail adverts to customers, specifically tailored to their buying patterns and the associations identified from data mining. This could reduce the costs of traditional direct mailing by post.

### *Requirement (c)*

*Examiner's Note: Candidates were only expected to provide three recommendations.*

VVT's main weakness is its reliance on one supplier with no long-term contract in place. It also has a supply chain which appears to be inefficient and error prone. VVT may wish to consider the following methods of improving its supply chain and remove some of the non-value adding activities:

- VVT should sign a formal 1 year rolling contract with MMM. There is an urgent need for VVT to sign a long-term supply contract with MMM to secure continuity of supply, on which at present VVT business is totally dependent. However, VVT could also consider widening its supply base by looking for other suppliers. However, this could increase costs for VVT in sourcing and managing a number of different suppliers but this must be weighed against the reduction of the risks associated with having only one supplier. Other suppliers may have better systems in place to monitor and control deliveries which would benefit VVT.



- VVT should also establish a secure online ordering and tracking system which links through to VVT's inventory system, so that as products are sold it triggers either an automatic order with MMM or a reminder to VVT's procurement department to place an order for specified products. All despatches from MMM should be updated on this tracking system, in real time, to enable VVT to track all orders from leaving MMM through to delivery at VVT's warehouse. This would enable VVT to know where all orders are at any specific point and prevent over-ordering. VVT uses only one supplier, MMM, which could be considered to be a weakness of the supply chain.
  - The use of the logistics company to deliver orders from the port in the neighbouring country is another 'weak link' in VVT's supply chain. If VVT could track each order then it would be able to ensure that the courier collected the goods as soon as they arrived in the shipping port. Also, the contract with the logistics company should include penalties for late delivery, to ensure deliveries are made to VVT within a specified period of time, such as 48 hours or 72 hours, from arrival in the port. VVT should consider replacing the logistics company used by MMM from a neighbouring country with a logistics company of its own choice. If VVT had better information relating to the shipping delivery dates then VVT could organise the pick up from the port using a logistics company over whom it has control, rather than being organised at a distance by MMM. This has clearly been a problem in the past as orders have gone missing with the logistics company and this could be reduced if VVT had a contract with a local company which it could monitor and exercise some degree of control over.
  - As the business involves electronic consumer products such as TVs and computers, it is important that VVT does not hold large inventories of these products as they could quickly become obsolete and the inventory would need to be written down and the products sold off cheaply or even disposed of. A small inventory should be held which satisfies the need to meet customers' orders with minimum delay but prevents large inventory holding of these products. It would be better for VVT to place smaller but more regular orders with MMM. However, this needs to be balanced with the increased order and shipping costs associated with more frequent deliveries.
  - VVT should consider identifying suppliers which can provide superior information about delivery and shipping dates. Most suppliers should be able to provide shipping information through their website using internet based order tracking systems. This will provide VVT with much better information in terms of supply dates and should hopefully reduce the impact of potential stock outs or the need to overstock – thus reducing costs. In fact VVT should consider identifying and using suppliers which could re-brand and re-package their products at their own production sites, reducing the costs of VVT having to undertake this at its own warehouse. This could significantly reduce its costs, particularly if the supplier is operating in a location where labour costs are lower than in VVT's own country. However VVT would have to consider the impact that this could have on its own reputation as it would have to make redundancies and also bad publicity may follow if it is considered that VVT is cutting costs through using cheap overseas labour. The elimination of re-packaging would remove non-value adding activities of VVT.
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## Answer to Question Four

### Rationale

This question examines Section B of the syllabus. Requirement (a) examines learning outcome B1(a) *'discuss the concept of organisational change'* and is designed to test candidates' understanding of the reasons for resistance to change. Requirement (b) examines learning outcome B3(b) *'evaluate ethical issues and their resolution in the context of organisational change'* and is designed to test candidates' understanding of the ethical impact of change management. Requirement (c) examines learning outcome B3(a) *'evaluate the role of change management in the context of strategy implementation'* and is designed to test candidates' understanding of how to manage staff resistance to the acquisition strategy.

### Suggested approach

For requirement (a) candidates are required to discuss the main reasons for resistance to change in PPP. This should be a straightforward question based upon the scenario information provided in relation to the current situation and the proposed change.

For requirement (b) candidates must consider the ethical aspects of a decision by QZZ to acquire PPP. It is important that answers take a wider business perspective of ethics in this answer, rather than merely focusing upon CIMA's ethical Code of Conduct.

For requirement (c) candidates are required to apply Lewin's three stage model to recommend how to implement the acquisition with minimal resistance. This again should be a straightforward question but candidates should ensure that their answers are fully applied to the scenario information.

### Requirement (a)

- PPP staff will be affected by the change of ownership as they may have to re-locate and undertake additional training. Thus, their location and responsibilities may change and therefore this could be a source of resistance.
- QZZ is proposing to move towards more online production and delivery of books and many staff will be unfamiliar with this type of product. PPP currently operates very traditionally and therefore this will have a significant impact upon the jobs and roles of the remaining staff. They are likely to resist this.
- The changes to the methods of operating may seem to be implied criticisms of the current family ethos of the business and this may cause resentment by the staff and the family members still working in the business. This may cause resistance.
- Re-location of employees has implications for each employee's family, housing and children's schooling. Is the relocation within reasonable commuting distance or is it to another part of the country? This impact on the wider family will likely be highly resisted.
- Potentially, there could be redundancies in the long term if QZZ acquires PPP and clearly all of the staff in PPP will be resistant to this. Many of the staff of PPP will resist change due to the obvious concerns about their jobs.
- The Board of Directors is very proud of its wide readership but QZZ intends to re-focus this to a much narrower audience. This proposal to reduce the readership is likely to be resisted by the Board and the staff.
- The work of the staff may now become less interesting if the business moves towards electronic delivery of books. This will affect morale and thus will create resistance.
- The break-up of the 'family ethos' is likely to meet with strong resistance from staff. Staff have valued the family ethos in PPP and are used to the company culture and have helped to establish PPP's good reputation. Now all of their hard work and commitment to the company, shown through low staff turnover and low absenteeism, will not count at all in the future.

### *Requirement (b)*

QZZ intends to re-organise PPP and to change its methods of operating. This is not unethical as it would appear necessary to safeguard the long-term survival of PPP. However, the way in which QZZ manages this acquisition could have ethical implications. In the UK, TUPE (Transfer of Undertakings/Protection of Employment) provides legal protection to employees in relation to transfer of their employment contracts to a new employer. It can be assumed that the country in which PPP operates will have a similar legal protection for employees. As well as following its legal obligations, QZZ must also consider its ethical obligations to the employees of PPP.

QZZ should insist that the staff of PPP are informed by the Board of PPP prior to acquisition. Staff should be informed of the potential acquisition so that they can have a full understanding of the acquisition process and have a better opportunity to make the correct decision for themselves. If they wish to leave prior to the acquisition to improve their own job prospects then they should be allowed to do so even if this means breaking a contractual agreement between the employer and employee. It could be considered unethical to not inform staff in appropriate time for them to make the best decisions for themselves. Therefore, staff must be informed immediately that a potential acquisition is being considered by the Board.

QZZ must treat employees with consideration for the potential stress that they are likely to be going through. Some staff may be fearful of using new technology. Employees should be offered appropriate re-training in e-business, with which they may not be familiar. This must be handled sensitively and with care. Staff should be encouraged to participate as this gives them new skills. They must not be forced to re-train with the threat of re-location or redundancy as this will not encourage them to embrace these new skills. This could result in stress-related illness causing them to take time off work and cost QZZ more and may be considered unethical behaviour. Staff should be encouraged and rewarded for a positive attitude to re-training and offered incentives. QZZ should consider offering incentives such as flexible working arrangements or bonus payments for training courses attended.

QZZ should consider its ethical obligations to the staff of PPP, many of whom have only ever worked for PPP and will have no other working experience. Therefore they may find it difficult to work within a new environment for new employers. Training in the culture of QZZ may be required in order to familiarise PPP's staff with the new working culture required.

QZZ has stated that if staff refuse to re-train or relocate then they could face redundancy. It could appear to be acting unethically if it offered staff no alternative options before redundancy. For example, QZZ should consider offering incentives such as flexible working arrangements or additional payments for travelling costs. It is likely that staff will be resistant to such major changes to working arrangements and therefore QZZ must try to incentivise the staff. Volunteers for re-location could be identified as a starting point. Also assistance with re-location both financial assistance and support during the move such as finding housing, temporary accommodation, schools etc would be an appropriate approach.

However, it is important to remember that QZZ is making a rational business decision and difficult decisions regarding employees sometimes have to be made. This does not necessarily make them unethical but QZZ must ensure that any actions it undertakes which affect employees are sensitively handled.

### *Requirement (c)*

It is recommended that staff are notified that an acquisition is being negotiated as soon as possible. Any changes which will impact upon them should be communicated so as to keep them informed, as speculation, gossip and fear of what is about to occur is often worse than the actual truth about the changes. Therefore QZZ needs to be mindful of the commitment of PPP's employees and recognise that they are key assets to the company. Staff need to be motivated and encouraged to change and re-train in order to make the acquisition a success.

**Unfreeze**

It is recommended that the Board of PPP must communicate immediately with the staff regarding the reasons for change. It must make it clear that PPP does not have the resources or the skills to operate in the current environment and that if PPP does not change through acquisition then it is likely that the company will close. The Board needs to clearly demonstrate to staff the changing market conditions and the clear change in the buying behaviour of customers for books. PPP can use the closure of the chain of book stores as clear evidence of this.

**Change**

Changing the behaviour of staff is likely to be complex and a range of methods will be needed. It is recommended that effective and regular communication must be carried out with staff regarding not only the redundancy process but also the opportunities the acquisition will bring. Meetings must take place with all staff to discuss the potential impact on them of the closure of the printing facility and the process of taking up new appointments.

Those staff who could be made redundant should be offered counselling. The Board of PPP must try to persuade QZZ that it must offer appropriate redundancy terms and should also invest in some form of assistance for staff. These staff have been highly loyal to PPP and if QZZ wishes to maintain a feeling of loyalty it must prove that it intends to treat its staff well. Morale is going to be a major driver of whether the acquisition will succeed or not and therefore encouraging up-beat morale should be a key consideration during the change process.

Re-training and re-location should be carefully managed. Staff may fear new technologies and methods of operating and therefore regular training must be carried out. Incentives and assistance should be provided for re-locating staff.

**Re-freezing**

It is recommended that incentives must be offered to those staff accepting the change. Bonuses should be offered to those staff who clearly accept the change.

It is recommended that regular communications with staff regarding acquisition negotiations should be carried out so that staff are fully informed throughout the process and commitment and motivation is maintained. After the acquisition, further communication should be carried out regularly to highlight improvements which have occurred.

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