Sample Scenario 2 version 3.0 (Nov 05 Manual)

Document Control Information

Document Details

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3.0	01/01/06	Document brought in line with APMG document management system and reviewed for changes against the November edition of the PRINCE2 Manual. Amendment made to question 5 to insert 'and evaluation'

Distribution List

Version	**Name**	**Title / Company**
All	All	Public document

Instructions

This paper is a compilation of a scenario, 5 questions and associated attachments. It is designed to provide ATOs and Practitioner Candidates a sample of the types of questions that may be asked.

Each question has a sample answer, which the examiners have prepared and whilst these are not "model" answers they would score well if submitted.

Marking schemes have not been given as they change and without proper interpretation can be confusing. The candidates should be aware that no more than 2 marks are given for each point made.

As a guide, candidates should spend 1 minute of their time for each mark awarded, e.g. a 10 mark question would require the candidate to spend 10 minutes on the answer, a 25 mark question 25 minutes and so forth. This allows for 30 minutes planning and review time throughout the examination period.

A large sweet manufacturing company, Candy plc, has been at a disadvantage compared to its competitors due to its outdated technology and lack of control over its own marketing, and this is reflected in increasing costs and declining sales. Candy plc has decided to launch a new packaged, chocolate covered, toffee bar to tackle the competition in the 'small bar' market. This will be handled as a PRINCE2 project and you are the Project Manager.

The Project Board consists of the Marketing Director (Senior User), Head of Production (Senior Supplier) and the Financial Director (Executive). An overall investment of £3.5m has been allocated for this venture, agreed by the Financial Director.

In the past Candy plc has sold direct to supermarket chains and wholesalers. The wholesalers sold the products on to small retailers. The supermarkets expected a lower price that gave them a 15% profit margin. Wholesaler and small retailers both expected a profit margin of 10%. This left Candy with a 15% profit margin. Marketing suggests that by going direct to the small retailers and offering a 12% profit margin, this would still provide Candy with a 25% profit margin. Sales to supermarkets would continue unchanged. For this product Candy Plc will perform its own marketing and a new sales process is being developed within the project. The design and creation of the marketing material are needed for a comprehensive launch of the product. A decision is also needed on the target audience for the marketing material before it can be designed and distributed.

Candy plc needs to successfully launch the chocolate bar via direct sales while maintaining its current level of quality and customer satisfaction. The launch date is 2nd January (8 months after the project start date). Break-even point must be within 24 months of the launch. Marketing believe that direct sales will increase Candy plc's market share by 10%.

A feasibility study established that Candy could produce the new bar and its wrapping with current equipment, but recommended investment in new equipment at a cost of £250,000 that will allow production of the expected volumes for year 2 onwards. Using current equipment would require a night shift to produce the required volume at an additional cost of £185,000 per year.

To launch the product the project will generate an advertising campaign that will include both television and press advertisements. These will need to conform to corporate standards and include the corporate logo.

The new production equipment needs to be ordered, delivered and installed. Agreements with suppliers need to be made for the provision of materials. These include the wrappers, boxed containers and the ingredients. The wrappers and boxes will need to comply with the size limits of the equipment. A trial of the production line will be needed, and sufficient supplies will need to be distributed to the sales outlets before the launch

1 (a) There is a serious risk that the supplier of the production line equipment may not deliver the equipment on the date agreed (15th September).
Using the PRINCE2 approach, carry out a risk analysis on this risk, giving your reasons for each step of the analysis. **(34 marks)**
(b) Identify 8 sub-processes in which PRINCE2 states specifically that the Project Manager will examine risks and explain why the examination is done. **(16 marks)**

2 Based upon your submission to the Project Board at the end of the start-up process, the initiation stage has been authorised. You are now in a position to plan the project. Using only the products in the scenario demonstrate your understanding of the project by drawing:
(a) a Product Breakdown Structure for the project showing specialist products only. **(20 marks)**
(b) a Product Flow Diagram from the Product Breakdown Structure. **(30 marks)**
Note: no explanations of the diagrams are required.

3 The project has moved on four months and is now in its final stage. See the attached memo from the Marketing Director (attachment 1). The Highlight Report (attachment 2), issued three weeks ago, is also for your information.
a) Draft the initial Issue Log entry for the production of miniatures. **(7 marks)**
b) Carry out an impact analysis based on the information available to you. **(22 marks)**
c) Assuming that after the impact analysis this change is confirmed as high priority, list the PRINCE2 processes you would use and what would be done in each to support this request. **(21 marks)**

4 Assume that you have just entered the initiation stage. Using the information in the scenario and the extract from the Project Brief (attachment 3) write a Project Quality Plan using the headings stated within Appendix A of the PRINCE2 manual. **(40 marks)**

5 You are completing the assembly of the Project Initiation Document and have been passed the Business Case (attachment 4) for comment before you include it within the draft PID.
Using the information in attachment 5 and the scenario, review the attached Business Case, make comments on its content and add any suggestions you wish to make to improve its content. Exclude the Investment Appraisal and evaluation from your considerations. **(50 marks)**

ATTACHMENT 1 - HIGHLIGHT REPORT

CANDY BAR PROJECT **7 October**

To: Distribution List as per Communications Plan.

Period Covered – 7 September to 7 October

Budget Status

	Planned	Expenditure to date	Forecast total expenditure	Tolerance available
Project (£)	3.8m	3.4m	3.84m	0.1m
Stage (£)	0.6m	0.2m	0.64m	0.1m

Schedule Status

	Planned End	Current Forecast	Tolerance available
Project	7 January	7 January	Zero
Stage	7 January	7 January	Zero

Products completed during period

Marketing material
Installed Equipment

Actual or potential problems and Risk update

None

Products to be completed during the next period

Completed production trial
Distributed launch material
Launched Candy bar

Project Issue Status

None Outstanding

Budget & Schedule impact of any changes

Has already cost of £40,000 in overtime payments

ATTACHMENT 2 - MEMO

From: The Marketing Director

To: The Project Manager

Date: October 28th

This morning I briefed my staff on the new Candy bar and how we will launch the product. During the briefing we received the results of some research that reveals that if we were to issue one box of miniature versions of the product as samples to go to all the shops in advance of the full marketing launch campaign, this would increase our customer base by 12%. The miniatures would be needed two weeks prior to the launch date. I have already had a word with the Production Director who pointed out that production of the miniatures would have to be done after the trial run. His senior engineer believes that it would need 4 weeks elapsed time to modify the production line and 3 weeks to produce the miniatures. Marketing costs would rise by £75,000. Production costs would be £150,000. As there is no plan to produce the miniatures, I am raising this with you as a change that is urgently required. Could you please prepare the necessary paperwork for consideration?

ATTACHMENT 3 – EXTRACT FROM THE PROJECT BRIEF

Project Tolerances:

Time: The project is not required to complete before the 2nd January. A delay of 5 days is acceptable.

Cost: Plus / Minus £400,000 from the approved budget of £3.5m.

Scope: All areas should be covered. If time/cost is threatened then consideration can be given to delaying the installation of the new production line equipment for 6 months.

Benefit: Target increase in market share is 12% at 25% profit margin. Plus/minus 2% on both of these figures is acceptable.

Risk: There is no risk tolerance available on time. Risk may be taken on the other areas but must be discussed with the Executive before any decision is taken.

Quality: The bar must meet all the requirements of the company standards and be in line with Candy's other products, i.e. less than 1% rejects per production line run, averaged over a 2-month period.

The bar must be acceptable to 90% of the target audience.

Customer's Quality Expectations:

The bar must be acceptable to the target audience.

The project must finish on the due date.

The expenditure must be in line with the budget.

The bar must conform to the company standards.

All products should be reviewed/tested to ensure conformance to the Product Descriptions.

ATTACHMENT 4 – BUSINESS CASE FOR INCLUSION IN THE PID

Reasons
Candy need to increase its market share and profit margin and have decided to launch a new Candy bar.

Options
A number of options have been considered and Candy has chosen to implement a new sales process plus existing products, launch a new bar and install new equipment.

Benefits expected:
An increased market share and profit margin. Payback within 24 months.

Risks:
We may miss the end date and exceed the budget.
The figures may be incorrect.

Costs:
£3.4m

Timescales:
Must be implemented within 8 months.

ATTACHMENT 5 – SUPPLEMENTARY INFORMATION

The feasibility study considered the following options:

1. New sales process plus existing products and existing production line: Gives an increased profit margin of 25% but does not increase market share. Existing equipment may not be sustainable after 3 years.

2. New sales process plus existing products; launch a new bar and use existing equipment: Gives an increased profit margin of 25%, an increase in market share of 12% but expected volumes cannot be sustained without night shift after year 2.

3. New sales process plus existing products; launch a new bar and install new equipment: Gives an increased profit margin of 25%, an increase in market share of 12%, volumes can be sustained into year 2 and beyond without a night shift, saving £185,000 per annum in year 2 onwards. Additional less tangible benefits of decreased maintenance effort for the new equipment, improved staff morale as they see the company investing in their future.

4. Do nothing: results in a continual decline and possible loss of jobs.

Chosen option: Option 3 as it gives the best long term benefit and will enable the company to produce other new products in the future. This assumes that the competitors do not release similar products in the next 12 months and that the marketing predictions are accurate.

Sample Answer Question 1a – you should expect to spend about 34 minutes answering this question

There are four steps in Risk Analysis – Identify, Evaluate the Risk, Identify Suitable Responses, Select.

Identify:
There is a serious risk that the supplier of the production line equipment may not deliver the equipment on the date agreed (15th September).

This risk should be entered into the Risk Log, which will record the results of the analysis.

Category: This is a strategic/commercial risk (failure of suppliers to meet contractual commitments).

Evaluation:

Probability: Medium. Whilst delivery has been promised according to our requirements there is always a possibility that the supplier may have problems that may delay the delivery of the equipment.

Impact:

Time: High. The project cannot complete without the new equipment.

Quality: High. If the project does not complete then an Acceptance Criterion (target date) cannot be met.

Benefit: High. A delay in the project will mean the resulting benefits would be delayed. If the marketing material has been issued and we cannot satisfy the demand the benefits may well be negative.

People/resources: Low. Morale may suffer if the production line is delayed..

Cost: Medium. It is likely that any delay will impact on costs. It may adversely affect our cost planning for the project. Resource costs will not stop during the delay.

Scope: High. If the delivery is late we will not be able to complete the scope of the project.

Proximity: September 15th.

Owner: The Senior Supplier (Head of Production). He is in a position to maintain a watching brief on the equipment supplier and could take the proposed actions.

Identify Suitable Responses:

Prevention: Cancel the order and use the existing equipment and the night shift – the risk can no longer happen.

Reduction: Order the equipment earlier to allow a longer delivery time for the supplier, thus less likely to happen; allow extra time in the plan for late delivery, thus reducing the impact; expedite the delivery weekly.

Transfer: Place liquidated damages in the contract thus encouraging the supplier to deliver on time; bonus the supplier for early/on time delivery, thus encouraging compliance with the delivery date.

Acceptance: We could hope for the best and accept the risk.

Contingency: Use the existing night shift until the new equipment arrives.

Selection: This is based on the cost of taking action versus the cost of the risk occurring. It is very important that this project succeeds – however, it would seem that the new equipment is not definitely required to enable the initial benefits to be realised. Therefore I would recommend expediting the delivery, which will encourage the supplier to deliver on time *and* formulate a contingency plan using the existing equipment and a night shift. This has added benefits as the contingency plan can be used to mitigate a number of the risks associated with the new equipment, its delivery, installation and trial.

Sample Answer Question 1b – you should expect to spend about 16 minutes answering this question

Note the question asked for 8 processes so only 8 should be given.

The Project Manager will review the Risk Log during:

SU4 – Risk Log is created to record risks identified during SU – i.e. from the Project Mandate, during creation of the Project Brief, the Project Approach and the initiation Stage Plan.

IP3 – The Risk Log will be examined to ensure that any risks associated with the Business Case have been accurately recorded and analysed.

PL6 – During planning the Project, Stage or Team Plans a risk analysis will be conducted to ensure that the associated risks have been captured and analysed.

SB4 – The PM will review the Risk Log in its entirety at the end of the stage to ensure that all risks associated with the next stage have been captured and analysed and that the risks associated with the stage coming to an end have been updated as necessary.

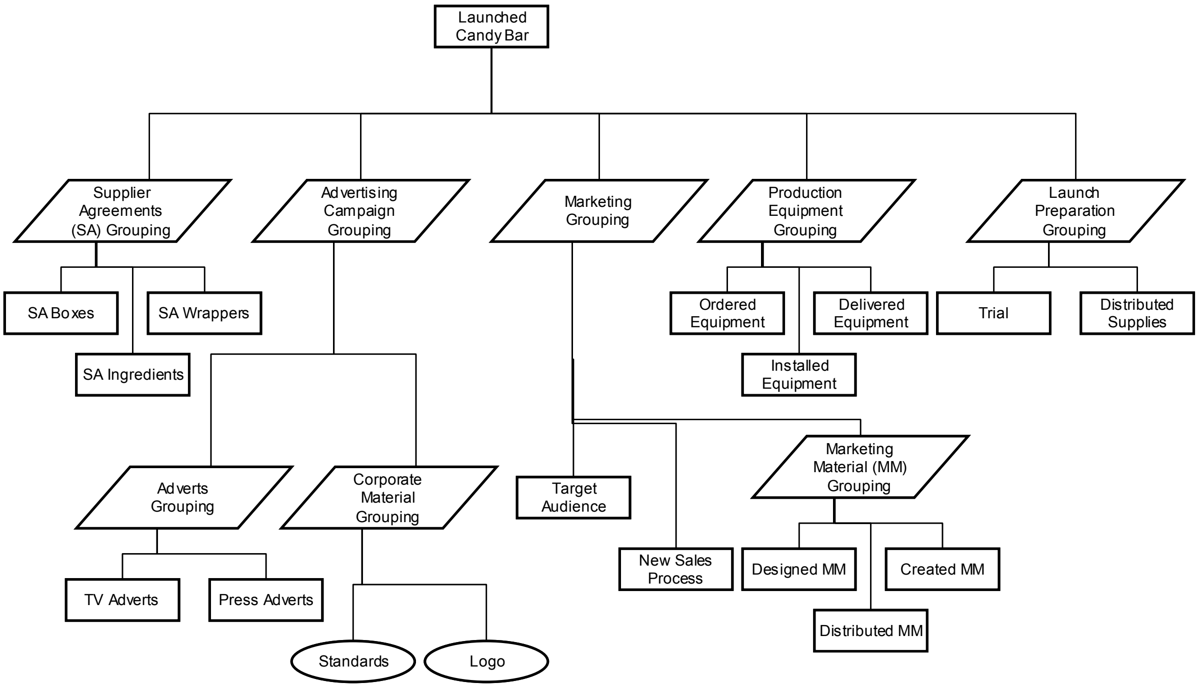
CS1 – Whilst negotiating and agreeing the Work Package with the Team Manager new risks may be identified, or existing ones revised as part of this process.

CS4 – Whilst undertaking an impact analysis of a Project Issue the Project Manager will look investigate the effect on the risks – does the Project Issue give rise to new risks or affect existing risks? The Risk Log will be updated accordingly.

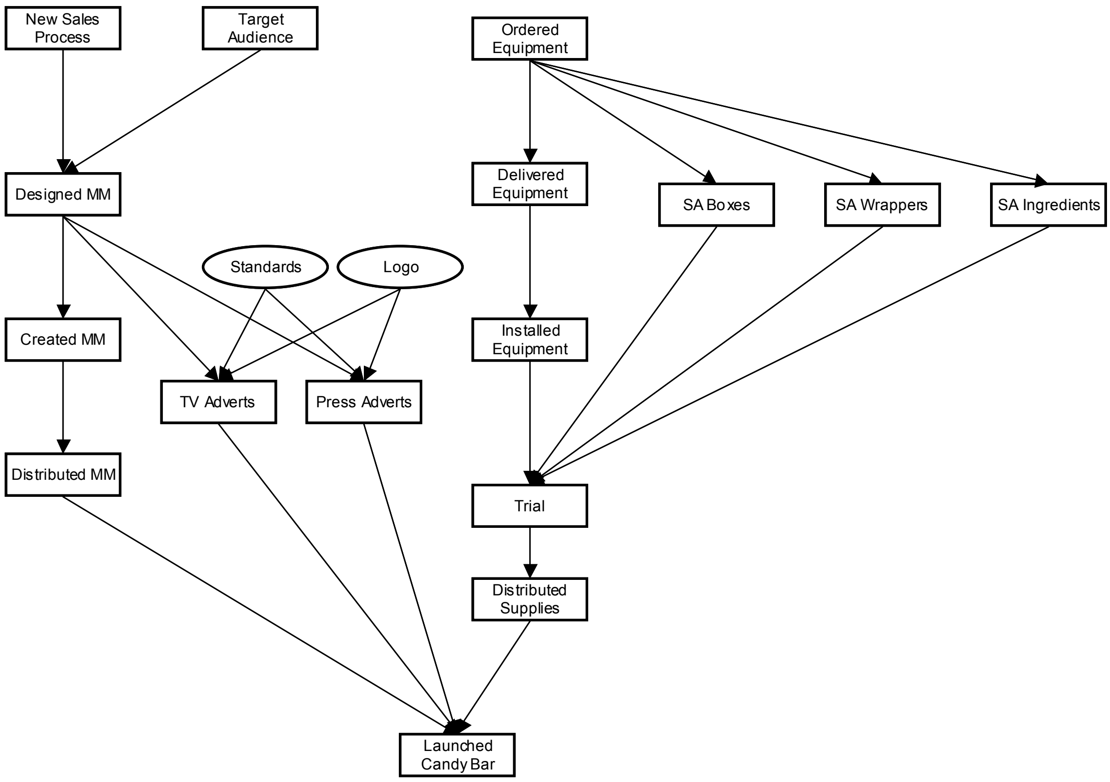
CS5 – During a review of the stage status the PM will review the risks associated with the period under review looking for any changes to the situation.

CS6 – The PM will include a review of the current risks in the Highlight report to the Project Board.

Sample Answer: Q 2a - Product Breakdown Structure for the Launched Candy Bar Project – you should spend about 50 minutes answering all of question 2.



Sample Answer: Q 2b - Product Flow Diagram for the Launched Candy Bar Project



Sample Answer Question 3a – you should expect to spend about 7 minutes answering this question

Project Issue Number: 12
Type: Request For Change
Author: Marketing Director
Date Identified: October 28th
Date of Last Update: October 28th
Description:
Research has shown a need to issue one box of miniature versions of the product as samples to go to all the shops in advance of the full marketing launch campaign.
Priority: 1
Status: Live, awaiting impact analysis.

Sample Answer Question 3b – you should expect to spend about 22 minutes answering this question

Impact Analysis

What would have to change:

The equipment would have to be changed in order to produce the miniatures.

Marketing material would have to change/be created for the miniatures.

What effort will the changes need:

The equipment change would take 4 weeks.

The production of the miniatures would take 3 weeks.

Production costs for the miniatures would be £150,000

Marketing costs would rise by £75,000.

No estimate is available at present for the extra time required by marketing.

What is the impact on Project. Stage and Team Plans:

The work requires at least 9 weeks elapsed time to complete. There is about 10 weeks to go in the plan including Christmas so it is highly likely that these changes will delay completion of the project. Additionally, the extra costs involved are not included within the current budget.

What is the impact on Tolerance:

The combined costs would take both stage and project outside its current tolerance of £0.1m.

There is currently zero time tolerance, so the required time for the change would exceed time tolerances for both stage and project.

What is the impact on the Business Case:

Although the costs would rise, the expected profit margins would still provide a healthy, if reduced, Business Case. Further discussions with marketing may be useful to provide more information about the forecasts.

What is the impact on the Risks:

Clearly the proposed change would put the current launch date at risk with knock-on effects to the timing of the TV and press advertising, especially as contracts for these have already been signed.

There may be extra risks connected with packaging the miniatures. They would require new wrapping and boxes, which would lead to further costs and potential delay.

There is a further risk that the new production equipment may have problems in producing the miniatures, as it was never envisaged, when ordering the equipment, that we would be producing such a small size of bar.

Producing miniatures at this late stage on untested equipment may lead to quality problems. The production, packaging and boxing of the miniatures will have to be trialled.

Sample Answer Question 3c – you should expect to spend about 21 minutes answering this question

Assuming the Project Issue has now been raised, logged and the impact analysis done, I would escalate it to the Project Board by means of an Exception Report (CS8). This would define the change, list the options open, together with their impacts on plans, tolerances, the Business Case and risks, and contain my recommendation. The Project Board would study the report in DP4.

Because the change would exceed project time and cost tolerances, the decision would have to be referred to senior management by the Project Board. If the need for the change is accepted, I would be directed to create Exception Plans (SB6) to be presented for approval by the Project Board at an exception assessment. It is unlikely that the Project Board would order the premature close of the project (CP1-3), but would choose between implementing the change request, rejecting it or delaying either the launch or the issue of miniatures.

Implementation would cause new Work Packages to be created (CS1) or existing ones to be modified (CS7).

If the change is to be implemented, as the change exceeds project tolerance the new plans will have to be confirmed by the corporate body, more funds allocated and new tolerances set at project level.

Sample Answer Question 4 – you should expect to spend about 40 minutes answering this question

Project Quality Plan for the Candy Project

Customer Quality Expectations:

The bar must be acceptable to the target audience.

The project must finish on the due date.

The expenditure must be in line with the budget.

The bar must conform to the company standards.

All products should be reviewed/tested to ensure conformance to the Product Descriptions.

Quality Tolerances:

The bar must meet all the requirements of the company standards and be in line with Candy's other products, i.e. less than 1% rejects per production line run, averaged over a 2-month period.

The bar must be acceptable to 90% of the target audience.

Acceptance Criteria:

Target Date: Complete by 7th January (includes tolerance).

Performance: 9 out of 10 people samples state that the new bar is satisfactory, 6 out of 10 samples state that the bar is better than satisfactory.

Development Cost: should cost less than £3.9m including tolerance.

Major Functions: Must include a new sales process for small retailers, new production line equipment capable of meeting demand into year 2 and beyond.

Reliability: The new production line must produce bars with less than 1% rejects per run averaged over a 2-month period.

Quality Responsibilities:

Executive: Must ensure that all the acceptance criteria are met.

Senior User: Must ensure that marketing products are to the standard required by the users.

Must sign off any Product Descriptions that may affect the users (such as new sales process, adverts, target audience).

Senior Supplier: Must ensure that all product produced meet the criteria laid down in the Product Descriptions.

Project Assurance (Executive): Ensure that all changes are monitored and approved. Ensure that project finance is being monitored appropriately.

Project Assurance (Senior User): Ensure that there is adequate and appropriate representation of the user at all reviews of the marketing products.

Project Assurance (Senior Supplier): Ensure that all supplier quality standards are being maintained. Ensure that all products produced have been adequately tested/inspected before delivery to the customer.

Project Manager: Ensure that Product Descriptions are written and signed off. Ensure that quality checks are planned and undertaken.

Team Managers: Ensure that quality checks are undertaken and that the appropriate entries are made in the Quality Log.

Project Support: Act as a scribe in the Quality Review when appropriate. Ensure that the Quality Log is maintained. Act as Configuration Librarian (see below).

Reference to any standards that need to be met:

Development must conform to company standards.

All work must comply with current health and safety regulations, standards and guidelines.

All work must comply with current food and hygiene standards.

Quality control and audit processes to be applied to project management

Project Assurance will review the Project Manager's files at each stage boundary.

Project Assurance will review the Project Manager's draft plans prior to presentation to the Project Board.

Project Assurance will assist the Project Manager by reviewing any reports, memos etc as required during the project.

Quality control and audit processes requirements for the specialist work:

All work will be reviewed in an appropriate manner (e.g. Quality Review technique for documents, appropriate testing for the production line) at "draft", "interim" and "final" points during production. The timing of these reviews/inspections/tests will be agreed between each supplier and the Project Manager when the Stage Plan is prepared. If the time between these reviews/inspections/tests is greater than 10 working days, further interim reviews/inspections/tests will be planned at times agreed between the Project Manager and the specialist supplier.

Change management procedures:

The Project Manager is authorised to accept small change requests that will not exceed in total 10% of the cost budget, each change being limited to a maximum of £1,000.

Any change greater than this amount, or one that will incur a delay to the project end date must be referred to the Executive for a decision.

Configuration Management Plan:

Product Storage:

Hardcopies of all drawings, plans, specifications (and any other documentation) will be held in the project office. Soft copies of all information will be held on the project directory of the internal server.

File/retrieval Security:

Only the Configuration Librarian and the Project Manager will have write access to the projects directory.

The Configuration Librarian will issue copies of any information required by other team members.

Version Control:

All products will be identified using the standard scheme:

Project id\Product Type\Product id\Version Number

e.g. Candy Bar\Marketing\TV Advert\V1.0

Responsibilities:

The Configuration Librarian function will be handled by the company's administration team (to be identified)

Any tools to be used to ensure quality:

The PRINCE2 QR technique will be used for documents. The production line will be tested via a trial.

Sample Answer Question 5 – you should expect to spend about 50 minutes answering this question

The Business Case offered is inadequate in many respects.

Reasons

Comments:

The reason given is in fact a benefit and does not reflect the current situation.

Suggestions:

I would change the text to read: "Candy plc, has been at a disadvantage compared to its competitors due to its outdated technology and lack of control over its own marketing, and this is reflected in increasing costs and declining sales. This project has been initiated to counteract this decline"

Options

Comments:

The statement does not state what other options have been considered. This will not give the readership (the Project Board in particular) confidence that this is the best option.

Suggestions:

I would change the text to read:

A number of options have been considered:

1. Implement a new sales process plus existing products and existing production line: Gives an increased profit margin of 25% but does not increase market share. Existing equipment may not be sustainable after 3 years.
2. Implement a new sales process plus existing products, launch a new bar and use existing equipment: Gives an increased profit margin of 25%, an increase in market share of 12% but expected volumes cannot be sustained without night shift after year 2.
3. Do nothing: results in a continual decline and possible loss of jobs.
4. Implement a new sales process plus existing products, launch a new bar and install new equipment.

   This is the chosen option as it gives the best long term benefit and will enable the company to produce other new products in the future.

Benefits expected:

Comments:

The benefits given are vague.

Suggestions:

I would change the text to read:

Increased profit margin of 25%

Increase in market share of 12%

Volumes can be sustained into year 2 and beyond without a night shift, saving £185,000 per annum in year 2 onwards.

Additional less tangible benefits of decreased maintenance effort for the new equipment, improved staff morale as they see the company investing in their future.

Payback within 24 months.

Risks:

Comments:

The risks stated are in fact effects of other risks. More risks could have been identified.

Suggestions:

I would change the text to read:

The marketing projections may be in accurate resulting in reduced/negative benefits

We may choose the wrong target audience resulting in fewer sales and reduced/negative benefits

The supplier may not deliver the equipment in time delaying the project and the receipt of benefit.

The new sales process may not work as planned resulting in lower sales and reduced/negative benefits

The new sales process may upset the wholesalers and they may change suppliers and thus negate benefits

The installation of the new production line may affect the existing quality of production adversely affecting the existing product lines.

Costs:

Comments:

Insufficient detail is given. The figure is incorrect.

Suggestions:

I would suggest:

An investment of £3.5m has been made with £250,000 set aside for the new production equipment. Break-even point is expected within 24 months.

Timescales:

Comments:

Could have more detail.

Suggestions:

I would reword as follows:

The project will take 8 months to implement and it is expected that this will be completed by 2nd January.