**ASSIGNMENT: Business Planning and Control**

The assignment is to develop an appraisal of an engineering firm’s current situation in the first part through analysing company reports (using their currency) and market information. The second part concerns risk assessment and innovation project planning for your Case Study firm. The third part involves developing a cash flow forecast for business planning and investment appraisal for which an advertising budget of up to £100,000 is available Years 1 through 3. Assumptions are to be clearly stated.

# Prepare a formal written report:

Prepare a Word document and write formally (i.e. avoid use of “I” or casual terms). Greater representation (e.g. graphically); discussion; interpretation and evaluation is expected for higher grades (e.g. giving insights into the firm’s situation; the management implications and making sector comparisons), as well as appropriate use of business/financial terms and evidence of wider reading.

To assist you with your coursework preparation please refer to the Marking Guidelines provided on the final page.

**Part 1. Case Study Review (40% of assignment marks)**

Select a Case Study firm which is a major manufacturer of consumer electronics (such as Logitech for example) or of electrical products used in buildings (heating; ventilation etc..).

*Note: Include their most recent full year financials (Income Statement etc…) in your report.*

1. Conduct some research (using the internet) into your chosen Case Study firm and its products - become familiar with the firm’s main operations (in their home country and overseas facilities) and their activities in key markets from the perspective of a customer and competitive situation analysis:
   1. Review their recent market performance: assess the Case Study firm’s recent results of operations in key markets (revenue sources for example, by product type/region).
   2. Assess their ability to compete in key markets by examining (and commenting on) profit margins and other ratios for the last 2 years (preferably tabulated).
   3. Review their recent financials and comment on their business situation for the last 2 years.
2. Evaluate their recent innovation approaches: review recent product developments by your Case Study firm (using course theory and wider reading). What ‘competences’ did they need to develop or acquire? How were any technology ‘gaps’ overcome? What innovation strategies did they use?

**Part 2. Innovation Project Planning (30% of assignment marks)**

Your Case Study firm (as Part 1) is planning their innovation activities and R&D expenditure to develop the next generation of equipment for ‘Smart Buildings’ that will include artificial intelligence (AI) integrated with building systems and Internet of Things (IoT) devices to automatically control the building’s key functions including heating, ventilation and air conditioning (HVAC) as well as lighting, security and other systems. The addition of AI capability is expected to provide user-centric building operations by ‘learning’ user patterns:

1. Conduct a SWOT Analysis for this specific business growth opportunity (not a generic one for the firm): assess the Case Study firm (and their products) based on their most recent Annual Reports and wider market information (to demonstrate you can evaluate business approaches creatively for enterprise business growth) as follows:

|  |  |
| --- | --- |
| * Internal factors: such as the firm’s resources (including financial position); their products (competitiveness); their product portfolio (existing areas) and its market reputation (innovation track record etc..) which are either Strengths or Weaknesses * External factors: such as changes in the market or environment including changes in user patterns affecting their product portfolios both current (declining / emerging areas) and potential (next-generation) which are either Opportunities   or Threats | P108C2T5#yIS1 |

*Note: Your answer should be in the form of a large table summarising their situation. Follow this with a short review of their overall situation.*

1. Your Case Study firm (as Part 1) has the opportunity to setup a Joint Venture to develop the next generation of equipment for ‘Smart Buildings’ with an established mid-size UK HVAC manufacturing firm with production facilities – do you advise this business venture? Discuss this business growth opportunity including the cost effectiveness and competitiveness of high technology products.

**Part 3. Investment Appraisal (30% of assignment marks)**

1. Your Case Study firm (as Part 1) is looking to invest £1.8 Million in next-generation products in Year 0 for which they expect initial Sales of £3,MN0,000 (where MN are the last 2 non-zero digits of your student id) that grow 20% annually. Product contribution is 40% (costings to be explained); indirect production costs are £340,000 and indirect operating costs (excluding advertising) are £230,000:
   1. Develop a Project Cash Forecast for Years 1 – 3 (and Totals) using the template below and comment on the project liquidity given your Case Study firm’s financial situation (examined in Part 1).
   2. Examine the project profitability taking into account the “Time Value of Money” using Discounted Cash Flows (DCFs) at a discount rate of 10% - show your workings.
   3. Increase the discount rate until the project is no longer “Worthwhile”. Show your workings and discuss how it is likely to be viewed.
2. A production plant for the final assembly of the units is being considered in a developing country to access local markets where variable costs are expected to be 40% lower; however, this involves five times higher set-up costs. Do you recommend this overseas business development project? Give your analysis/rationale and critically assess in a few paragraphs (using course materials and wider reading) this market growth opportunity.

**Cash Flow Statement Template**

|  |  |  |  |
| --- | --- | --- | --- |
| Total sales  Cash Outflows (£) Operating cash flows:  Cost item (1)  … Cost item (n)  TOTAL OPERATING COSTS OPERATING NET CASH FLOW  Capital Expenditure (Start-up costs) NET CASH FLOW  Project Cash Flow position | **Year 1**  £ nnnn  nnnn nnnn  £ nnnn  £ nnnn nnnn nnnn  nnnn | **Year 2**  £ nnnn  nnnn nnnn  £ nnnn  £ nnnn nnnn nnnn  nnnn | **Year 3**  £ nnnn  nnnn nnnn  £ nnnn  £ nnnn nnnn nnnn  nnnn |

***Reminder: List your References (the majority to be academic sources – books/journal articles).***

**Grade A+/A++**

Work of exceptionally high quality based on research into the industry including advancements in the sector. Clearly demonstrates a sophisticated, critical and thorough understanding of the firm’s context with well- developed business proposals appropriate to the firm’s competitive position and value provision. Provides clear evidence of originality and clearly demonstrates the ability to develop an independent, highly systematic and logical or insightful argument or evaluation. Demonstrates exceptional ability in the appropriate use of the relevant course concepts, methodologies, practices and tools to analyse and synthesise at Masters Level. Shows exceptional clarity, focus and cogency in communication.

**Grade A**

Clearly demonstrates a sophisticated, critical and thorough understanding of the firm’s context with well justified business proposals appropriate to the firm’s competitive situation and value creation. Provides evidence of originality of thought and clearly demonstrates the ability to develop an independent, highly systematic and logical or insightful argument or evaluation. Demonstrates excellence in the appropriate use of the relevant course concepts, methodologies, practices and tools to analyse and synthesise at Masters Level. Shows excellent clarity, focus and cogency in communication.

**Grade B**

Clearly demonstrates a well-developed, critical and comprehensive understanding of the firm’s context with well supported business proposals appropriate to the firm’s business situation and relevant issues. Clearly demonstrates the ability to develop an independent, systematic and logical or insightful argument or evaluation. Demonstrates a high degree of competence in the appropriate use of the relevant course concepts, methodologies, practices and tools to analyse and synthesise at Masters Level. Shows a high level of clarity, focus and cogency in communication.

**Grade C**

Demonstrates a critical and substantial understanding of the firm’s context with some pertinent proposals appropriate to the firm’s resources and its environment. Demonstrates the ability to develop an independent, systematic and logical or insightful argument or evaluation. Demonstrates a significant degree of competence in the appropriate use of the relevant course concepts, methodologies, practices and tools to analyse and synthesise at Masters Level. Provides evidence of clarity, focus and cogency in communication.

**Grade D**

Provides evidence of some critical understanding of the firm’s context with limited proposals appropriate to the firm’s business activities and product portfolio. Demonstrates some ability to develop a structured argument or evaluation. Demonstrates an acceptable degree of competence in the appropriate use of the relevant course concepts, methodologies, practices and tools to analyse and synthesise, but not at Masters Level. Provides evidence of effective communication.

**Grade E**

Work that demonstrates significant weaknesses, but which provides strong evidence that Grade D is within the reach of the student.

**Grade F**

Work that is unacceptable.