Business and Decision Making M23367

Coursework: 50% of the total mark.

Due date: 13 May 2022 at 23:55.

The coursework should be uploaded to Moodle, to the Coursework Dropbox.

Instructions: There are 4 components of this coursework: Appraisal Methods, CVP Analysis, Budgeting and Control, and Ratio Analysis. In this coursework, you will be expected to perform calculations and also to give explanations and recommendations based on your calculations. You should complete all the coursework on PowerPoint slides as if you were giving a presentation. The maximum quantity of slides to be used are 10 and a recommended allocation follows:

Main presentation slides: 6 slides

Supporting slides with numerical data: 3 slides

Bibliography: 1 slide

Submission: The filename submitted should be of the following format: Student_Number

Please ensure you adequately back up your work at all times to avoid any loss of work or corruption of computer files. Do not wait to the last minute to hand it the work. You should plan to hand in your work at least a full day before it is due.

If there is a problem with Moodle at the time of submission, students should email their coursework to submissions@port.ac.uk with the following details:

- **Student Number**
- **Module Name / Module number**
- **Course name that you are studying**
- **Screenshot of the error**

Plagiarism: Students must avoid plagiarism in all assessments. The University Regulations describe plagiarism as:

> ***'the incorporation by a student in work for assessment of material which is not their own, in the sense that all or a substantial part of the work has been copied without any adequate attempt at attribution, or has been incorporated as if it were the student's own when in fact it is wholly or substantially the work of another person or persons.'***

Any student suspected of plagiarising will be referred to the BaL Student Assessment and Assessment Regulations Lead and an Academic Misconduct Hearing will be arranged.

Referencing requirements: Students must reference all sources using the APA 7th Edition. Guidance on this method of referencing can be found at https://library.port.ac.uk/referencing. Reference should be made to the primary source, except when the primary source can no longer be obtained. Poor citation of sources will result in a loss of marks.

Referencing is required to give intellectual credit to your source, help your reader recover your source easily and to avoid being accused of plagiarism.

Students are reminded that the University will not tolerate academic dishonesty in any form. This is cheating.

Feedback: Marking will be done in accordance with the guidance set out in the University of Portsmouth grading criteria for UG level 5. Marks for the coursework assessment are due for release within 20 working days after the submission deadline date. If there is any delay in the processing of marks, the module coordinator will communicate this to you.

Section I. Appraisal Methods

Marine Spray Clothing are a wholesaler and provide clothing and sailing accessories to the Marine industry. Business has been strong over the last few years, and as a result, Marine has excessive cash reserves. They are also in negotiations with a large new customer to provide all their sailing requirements over the next 5 years. Marine is currently operating at full capacity and in order to take on the new business, Marine will need room to expand. The business next door has recently moved giving Marine an opportunity to substantially expand their operations and warehouse premises.

Marine will take on the remainder of the 5-year lease of the new warehouse premises. The initial investment will include £2m in repairs and renewals to bring the premises up to standard and an additional £8 million in equipment. The entire investment of £10 million is expected to have a useful life of 5 years and a residual value of £2 million. Any depreciation should be calculated on a straight-line basis.

Marine has estimated future cash inflows and outflows over the following 5 years of the project as follows:

Yr	Inflow	Outflow
1	3,000,000	-2,000,000
2	5,000,000	-3,000,000
3	8,000,000	-2,000,000
4	7,000,000	-2,000,000
5	3,000,000	-1,000,000

Marine's cost of capital is 7%.

The Finance Director has been asked by the Board of Directors to appraise the viability and determine the future cashflows and profitability generating by the investment.

She has been asked to give a presentation to the Board using three appraisal methods:

- Discounted Payback
- ARR
- NPV

Required:

A. Calculate the Discounted Payback. (**6 marks**)

B. Calculate the ARR. (**6 marks**)

C. Calculate the NPV. (**6 marks**)

D. You will also need to explain the results of the three appraisal methods and advise the board on if they should take up the contract and why. Keep in mind that the board are all mariners and know a lot of about the marine business but have no finance or accounting experience. As a result, you will need to explain to them all aspects of your analysis and figures. You should also perform some research with references. (**12 marks)**

Total Marks 30

Section II. Breakeven & Margin of Safety

Marine has been approached by a large organisation for a contract to supply lifejackets for one year. The Finance Director for Marine believes they have three options to maximise the profit from this contract.

Option 1:

They expect to sell 25,000 lifejackets at the current selling price of £70 per lifejacket. Their material cost is currently £35 per lifejacket and the labour cost is £20 per lifejacket. The fixed cost is £250,000.

Option 2:

Marine believes that with a decrease in the selling price of 15%, the customer may increase their demand by 20%. With the increase in the sales volume, Marine believes they could negotiate a reduction of £10 in the material cost per lifejacket, although labour cost would stay the same.

Option 3:

Invest in a new machine costing £60,000. The new machine would decrease the labour cost by £5 per lifejacket. The selling price would remain at 15% discount and material cost would remain the same at the original cost of £35 per lifejacket as shown in Option 1.

The target profit in all options is £150,000.

Required:

1) Define and explain breakeven and margin of safety, using diagrams if necessary. (**3 marks**)
2) Calculate the breakeven in units on all 3 options. (**9 marks**)
3) Calculate margin of safety in units on all 3 options. (**3 marks**)
4) Calculate the required sales in units for the target profit on all 3 options. (**3 marks**)
5) Recommend and explain which option Marine should consider. (**2 marks**)

You should also perform some research with references.

Total Marks 20

Section III. Budgeting and Control

The Board of Directors have asked the Finance Director how Budget Controls would enable the business to continue growing. The Finance Director will need to critically evaluate the advantages and disadvantages of Budgeting.

Explain and evaluate the advantages (**10 marks**) and disadvantages (**10 marks**) of Budgeting as a control mechanism.

You should also perform some research with references.

Total Marks 20

Section IV. Financial Ratios – Calculation & Interpretation

Six months has now past, and Marine has experienced continued growth and expansion which has attracted the attention of Big Liner PLC, a global manufacturer and retailer of sailing clothing and accessories who are looking for potential acquisitions. They have made some approaches to the Board of Directors and have asked for some information in financial results and analysis. The Board have asked the Finance Director to produce the Financial Statements (below) and has asked her to carry out some Variance Analysis including the following ratios:

Profitability:

- Gross Profit Margin
- Operating Profit Margin
- Return of Equity

Liquidity:

- Current Ratio
- Quick acid test

Investment:

- Gearing Ratio
- Interest Cover

Efficiency:

- Inventory Days
- Receivable Days
- Payable Days

Using 5 of these ratios (1 each from Profitability, Liquidity, and Investment; 2 from Efficiency) explain the ratio, what it means and what it is measuring (**5 marks**), calculate the ratio for both years (**10 marks**) and discuss the results/fluctuations in the two years in relation the company (**5 marks**). You should also perform some research with references.

Total Marks 20

Income Statement

	2021	2020
Sales	£890m	£560m
Cost of sales	£(750)m	£(448)m
Gross profit	£140m	£112m
Operating expenses	£(69)m	£(60)m
Operating profit	£71m	£52m
Interest payable	£(9)m	£(4)m
Profit after interest	£62m	£48m

Statement of Financial Position

	2021		2020	
Non-Current Assets		£124m		£106m
Current assets				
Inventories	£59m		£45m	
Trade receivables	£48m		£51m	
Cash at bank	£12m		£2m	
		£119m		£98m
Total assets		**£243m**		**£204m**
Equity and liabilities				
Share capital	£100m		£100m	
Retained profits	£88m		£26m	
		£188m		£126m
Current liabilities				
Trade payables	£50m		£55m	
		£50m		£55m
Non-Current liabilities				
Bank Loan	£5m		£23m	
		£5m		£23m
Total equity and liabilities		**£243m**		**£204m**

Organisation and layout of Presentation Slides: 4 Marks

Bibliography and References: 6 marks

Total Coursework Marks 100